

Correspondence appendix

(1) Essentials of correspondence:

Basics: Two expressions, S_1 and S_2 , may be viewed as identical at some level of abstraction. Correspondence theory characterizes the extent of their formal similarity.

E.g. [bam] (*bomb*) and [bamb-] (*bomb-ard*): two contextually different variants of the same lexical entry.

Terminology: If S_1 and S_2 are versions of each other - variant realizations of the same linguistic expression - then they stand in **correspondence**, or they are **global correspondents** of each other.

E.g. [bam] (*bomb*) is the global correspondent of UR /bamb-/.

(2) From global to partial correspondence:

Basics: If S_1 and S_2 are correspondents then it is preferred that some components of S_1 will correspond to components of S_2 . And vice versa.

(S_1 = UR or base or related notion; S_2 = SR or derivative)

Constraints: Mapping S_1 into S_2 : **MAX** ϕ (S_1 - S_2)

For each element ϕ of S_1 there exists a correspondent element of S_2

Mapping S_2 into S_1 : **DEP** ϕ (S_1 - S_2)

For each element ϕ of S_2 there exists a correspondent element of S_1

Specifics: In practice, these corresponding elements are always segments. Extensions to other elements of the representation are possible and sometimes needed: corresponding feature values, syllables, rimes, features, weight units, feet etc.

MAX σ (I-O): would mean that for every syllable of the input form there must exist correspondent syllable in the output form. Ensures parity of syllable count in cases where V's and C's can be sacrificed but the overall number of syllables remains constant.

MAX μ (mora) (I-O): would mean that for every mora of the input form there must exist a mora in the output. This insures preservation of weight.

(3) Correspondence \neq identity

- The correspondents are preferably identical in their phonological properties.
- Enforcing piece-meal identity between correspondents: **Ident F**

Ident [\pm voice] means: *correspondent segments are identical wrt voicing*. As this is a violable constraint, segments distinct wrt voice can still correspond.

- Correspondence is preferably a one-to-one relation
- Enforcing one-to-one correspondence are the **Uniformity** constraints stating that for every element of type x in S_1 there is only one correspondent element in S_2 .

Uniformity (I-O) states that for every segment in O there is at most one correspondent segment in I. It's a violable constraint: coalescence can be analyzed as merger of segments.

/a ₁ i ₂ /	*VV	MAX V (I-O)	Uniformity (I-O)
↗[e ₁ i ₂]			*
[a ₁]		*!	

Uniformity (O-I, aka Integrity) states that for every segment in I there is at most one correspondent segment in O. Likewise a violable constraint: “diphthongization” violates it.

/e:/	*long mid	MAX mora	Uniformity (O-I)
↗[i ₁ e ₁]			*
[e:]	*!		
[e ₁]		*!	

Extensions: Many possibilities exist beyond identity for distinctive features. Some likely ones are:

Ident syllabic position:

Correspondent elements in S₁ and S₂ occupy the same syllabic position.

Ident length: ...have the same mora count.

Ident stress: ... have same stressed/unstressed status.

(4) Correspondence (MAX) constraints conflict with identity constraints (Ident F)

MAX >> Ident: correspondents may differ wrt F, if this is the only way to satisfy MAX.

English voicing assimilation. Agree [±voice] requires voice identity for final obstruents

lɪk-d	MAX C (I-O)	Agree [±voice]	Ident [±voice] (I-O)
lɪkd		*!	
↗lɪkt			*
lɪd	*!		

Ident >> MAX: if non-identical for F, two strings cannot be counted as correspondents.

Ancient Greek cluster simplification. *O-P (P = non-coronal) requires clusters of stop+obstruent to have a coronal as their second element.

ke-komid-ka	*O-P	Ident [±cont] (I-O)	MAX C (I-O)
kekomidka	*!		
↗kekomika			*
kekomiska		*!	

(5) Identity constraints conflict with identity constraints: Ident [±F] >> Ident[±G]

An example from English voicing assimilation. Agree [±voice] not shown here.

lɪk-d	MAX C (I-O)	Ident [±sonorant] (I-O)	Ident [±voice] (I-O)
lɪkn		*!	
↗lɪkt			*
lɪd	*!		

(6) Context-sensitive correspondence (aka positional faithfulness)

The basic problem: very broadly formulated constraints like MAX C or Ident F do not give a precise enough answer to the question “How do we modify the input to satisfy a phonotactic constraint”.

Example 1: VC₁C₂V → VC₂V in many languages, regardless of the nature of C₁ or C₂.

E.g. Greek *ke-komid-ka* ‘I have eaten’ → *kekomika*

The analysis *O-P, Ident [±cont] (I-O) >> MAX C (I-O) does not exclude **kekomida*.

The standard answer (alternatives later) is that more context needed in the correspondence constraint: MAX C/_V (I-O) ≠ MAX C/-(/_V)(IO).

ke-komid-ka	*O-P	MAX C/_V(I-O)	MAX C/-(/_V) (I-O)
kekomidka	*!		
☞ kekomika			*
kekomida		*!	

Similarly, for Ident [±F]:

lk-d	Agree [±voice]	Ident [±voice] (I-O)
☞ lkt		*
☞ lgd		*

Here too more context needed: Ident F//V (I-O) >> Ident F /-(//V) (I-O)

lk-d	Agree [±voice]	Ident [±voice]/V_ (I-O)	Ident [±voice]/ /-(//V) (I-O)
☞ lkt			*
lgd		*!	

(6) The standard set of correspondence conditions beyond MAX/DEP and Ident

- quotes from McCarthy and Prince’s 1995 Appendix. Revisions later.

(a) Left/Right anchor S1-S2

“If x is the edge of S1 & y is the edge of S2 then x and y stand in correspondence.”
(edge understood as same edge)

E.g. deletion of C2 in initial C1C2: Tagalog *ta-trabaho*, **ra-trabaho*

(b) I-Contiguity (no skipping) S1-S2

“The portion of S1 standing in correspondence forms a contiguous string.”

E.g. English /bomb/ [bam], *[bab] I-Contiguity >> Anchor R I-O

(c) O-Contiguity (no intrusion) S2-S1

“The portion of S2 standing in correspondence forms a contiguous string.”

E.g. Arabic *iftara ktaab* ‘he bought a book’ but *iktaab* ‘book’, **kitaab*

Contiguity >> *Coda, Onset (or >> Coda, DEP if ?*iktaab*)

(d) Linearity

“S1 is consistent with the precedence relations of S2 and vice versa”

- (i) Linearity undominated: phono-C can be satisfied by shuffling segments/features, but isn't
*O-P in Greek does not give rise to C movement
*O-P, Linearity I-O >> MAX I-O
- (ii) Linearity violated: Tagalog *atip/aptan, tanim/tamnan, talab/tablan*
*O-P, MAX C >> Linearity I-O

(e) Uniformity

“No element of S2 has multiple correspondents in S1”

- (i) Uniformity satisfied if *VV satisfied through deletion.
- (ii) Uniformity violated *VV satisfied through coalescence.

(f) Integrity

“No element of S1 has multiple correspondents in S2”

- (i) Integrity satisfied if [*aF, bG] satisfied through change of aF.
E.g. $\tilde{a} \rightarrow a$
- (ii) Integrity violated: aF, bG reassigned to different segments.
E.g. $\tilde{a} \rightarrow an$

(7) Which pairs of segments can GEN allow to stand in correspondence?

Any. The hope is that the right constraint hierarchy can be used to weed out the wrong pairs.