

Review: Part IV.

Distinctive Features: Redundancy

1. Segment redundancy

SPANISH:

	i	e	a	o	u
[high]	+	-	-	-	+
[low]	-	-	+	-	-
[back]	-	-	+	+	+
[round]	-	-	-	+	+

Redundant Values:

- a. [+ high] (downward arrow: “implies”)
 ↓
 [- low]
- b. [+ low]
 ↓
 [-high]
- c. [- back]
 ↓
 [- round]
- d. [+ round]
 ↓
 [+ back]

- e. [+ low]
 ↓
 [+ back]
 [-round]
- f. { [- back] }
 { [+ round] }
 ↓
 [- low]
- either* [- back] *or* [+ round]

Redundant values: *Predictable* on the basis of values for other features.

Redundant features may be important when we need to make reference to a natural class comprising several segments.

e.g., If we want to refer to a class containing all vowels except /a/

i, e, o, u [- low]

or: If we want to refer to a class containing

i, e, a [- round]

But: If we want to refer to one particular segment, the non-redundant values have to be used.

e.g., /i/ [+ high]
 [- back]

Language-specific and universal redundancies

Language-specific redundancies exist because all combinations of features are not always utilized.

e.g., Hungarian voiceless stops:

	p	t	c	k
[anterior]	+	+	-	-
[coronal]	-	+	+	-

The features [anterior] and [coronal] are maximally utilized.

BUT: English voiceless stops

	p	t	k
[anterior]	+	+	-
[coronal]	-	+	-

Since velars are the only stops in English which are [- anterior], it follows that they are also [- coronal]; similarly, because alveolars are the only stops that are [+ coronal], a [+ coronal] stop must also be [+ anterior].

Universal redundancies express co-occurrence restrictions on combinations of features.

[+ high]
is always
↓
[- low]

[+ low]
is always
↓
[- high]

[+ syllabic]
is always
↓
[+ sonorant]

SPANISH VOWELS (Version #2)

	i	e	a	o	u
[high]	+	-	-	-	+
[low]	-	-	+	-	-
[back]	-	-	+	+	+
[round]	-	-	-	+	+

a. [+ high]
 ↓
 [- low]

b. [+ low]
 ↓
 [+ back]
 [- round]

c. [- round]
 [- low]
 ↓
 [- back]

d. [- low]
 [+ back]
 ↓
 [+ round]

[- round]
 ↓
 [-back]

[+ back]
 ↓
 [+ round]

QUESTION:

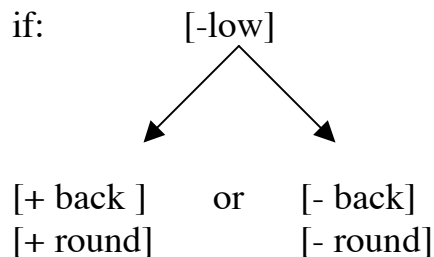
Should we predict the *frontness/backness* on the basis of *roundness/unroundness*

or

Should we predict the *roundness/unroundness* on the basis of *frontness/backness*?

Which feature is more basic?

Assumption: neither feature determines the other; rather the two features *agree* with one another; this means that we cannot state that one of them is the *distinctive feature* (= the basic one) and the other is the *redundant feature*.



2. Sequence redundancy

English morphemes may begin with zero, one, two or three consonants:

it, pit, spit, split

There are no words beginning with four or more consonants: *splrit

Sequential contrasts are language specific.

#([-syllabic])([-syllabic])([-syllabic])[+syllabic]

if: [-syllabic] [-syllabic] [-syllabic]

then: $\left(\begin{array}{l} +\text{consonantal} \\ +\text{anterior} \\ +\text{coronal} \\ +\text{continuant} \\ +\text{strident} \\ -\text{voice} \end{array} \right)$ $\left(\begin{array}{l} -\text{continuant} \\ -\text{delayed release} \\ -\text{voice} \end{array} \right)$ $\left(\begin{array}{l} +\text{sonorant} \\ -\text{syllabic} \\ -\text{nasal} \end{array} \right)$

#	s	p	l
		t	r
		k	w
			y

Not all of these combinations are utilized, e.g. *stl*, *stw*