

DISTINCTIVE FEATURES**Part 2.***Redundant and contrastive features:*

SPANISH VOWELS:

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

Redundant Values:

a. [+ high]



[- low]

downward arrow: “implies”

b. [+ low]



[-high]

c. [- back]



[- round]

d. [+ round]



[+ back]

e. [+ low]



$$\left(\begin{array}{l} + \text{ back} \\ - \text{ round} \end{array} \right)$$
f. $\left(\begin{array}{l} \text{high} \\ - \text{ back} \end{array} \right)$ 

[- low]

g. $\left(\begin{array}{l} + \text{ back} \\ + \text{ round} \end{array} \right)$ *either [+ back] or [+ round]*

[- low]

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/ $\begin{pmatrix} + \text{ high} \\ - \text{ back} \end{pmatrix}$

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]		√	√	

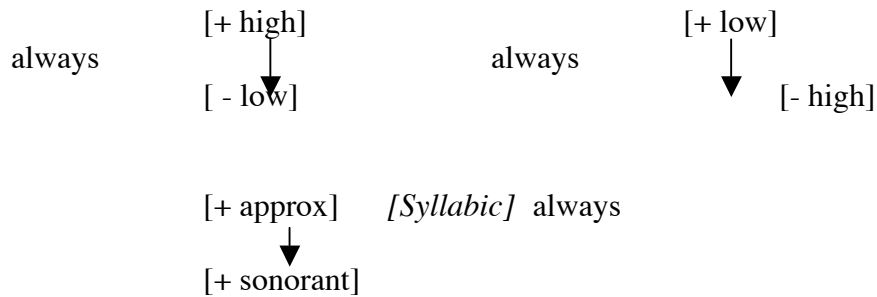
The features [anterior] and [coronal] are maximally utilized.

BUT: English voiceless stops:

	p	t	k
[anterior]	+	+	-
[coronal]		√	

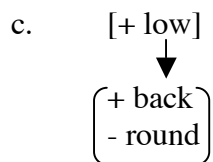
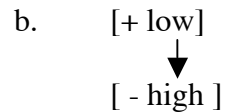
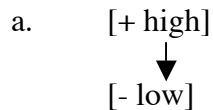
Since velars are the only stops in English which are [- anterior], it follows that they the feature [coronal] is not relevant; similarly, because alveolars are the only stops that are specified [coronal], a [coronal] stop must also be [+ anterior].

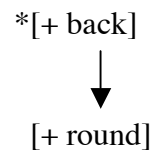
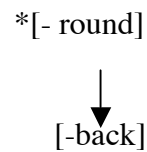
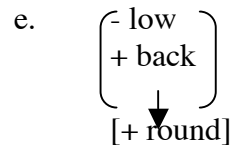
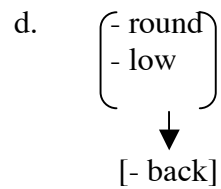
Universal redundancies express co-occurrence restrictions on combinations of features.



SPANISH VOWELS (Version #2):

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





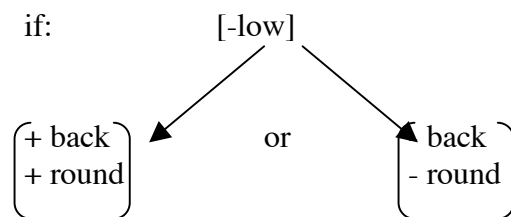
QUESTION: Should we predict the *frontness/backness* on the basis of *roundness/unroundness*

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*.



TURKISH: Study Tables (10) and (11) from the book.

Underspecification Theory:

- Should redundant features to be included in the underlying representations?
- Do the absence of redundant features affect the formulation of

phonological generalizations?

Latin example: Study (12) and (13)

Contrastive underspecification: features are specified only in segments that contrast for the feature concerned.