Handout 5

Concatenation in a non-Concatenative Framework:

As we have previously seen (see handout 3), concatenative processes in a non-concatenative system are extremely limited.

Out of the numerous non-concatenative operations in Arabic, we were able to designate some categories that do indeed rely on affixation.

These operation, laid down in detail in handout 3, will not be repeated here.

Instead, we will focus on apparent syncretism in some particles.

Consider the following object particles:

1st sg: '-ne'   2nd sg masc: '-ak/-k'   2nd sg fem.: '-ik/-ke'

3rd sg masc: '-o'   3rd sg fem: '-a'   3rd pl: '-on'

1st pl: '-na'   2nd pl: '-kun'

With the exception of the first person singular, these particles are identical to possessive markers.

These particles may be suffixes or clitics, but this is not as relevant, as they are still segmentable and therefore their presence is another attestation to concatenation in Arabic, a non-concatenative language.

Suffixes or clitics that resemble the aforementioned one would be the dative particle, similar to the above particles except that they all contain an additional initial 'L-'. The dative paradigm is shown below:

1st sg: '-le'   2nd sg masc: '-lak'   2nd sg fem.: '-lik'

3rd sg masc: '-lo'   3rd sg fem: '-la'   3rd pl: '-lon'

1st pl: '-lna'   2nd pl: '-lkun'

The 'L-' component of this particle may be the result of the grammaticalization of a dative preposition.

The concatenative process of marking possession may be applied to function words like prepositions, which is not possible in English, but common in Hungarian.

Consider the following table which shows different prepositions declined for the 1st person singular in Arabic and Hungarian, compared to their counterparts in English.

Arabic	Hungarian	English
ʕind-e	nál(a)-m	at mine/ with me/in my possession
il-e	nek(e)-m	for me/ to me
maʕ-e	vel(e)-m	with me
ʕla(yy)-e	rajt(a)m	on me
minn-e	től(e)-m	from me

The regularity by which both Arabic and Hungarian form these prepositions/pronouns also applies to Hungarian postpositions and the equivalent thereof in Arabic. In English, possession is not expressed by means of a suffix or a particle, thus rendering such a process impossible on function words.

Consider these two words:

(1) L.mʕalm.e.et

def.teacher.fem.pl

The teachers (fem.)

(2) mʕalm.e.et.kun

teacher.fem.pl.2ndpl poss

Your (plural) teachers (fem.)

It is clear that possession is mutually exclusive with the definite article. Arabic, then, is a language where determiners cannot co-occur with possession in the NP, i.e. they are in complementary distribution.

Compare this to Hungarian: A te tanáraid (literally 'the your teachers')

Here, a morphosyntactic clash in the language prevented concatenation from taking its full course. However, this introduces us to portmanteau morphemes.

Portmanteau morphemes are morphemes which have more than one meaning incorporated into their semantic-syntactic profile.

An example of a portmanteau morpheme would be the abovementioned '-kun', which carries two meanings here. First, it is the 2nd plural possessive marker, which also encodes definiteness into it, taken to be the second meaning.

Question: Can you think of portmanteau morphs in your language?

The Zero Morph:

Haspelmath p. 45-46, 64-65

Question: Think of Arabic's 'default' form I being the 3rd sg masculine. Can this be treated as an instance of the zero morph? If yes, how? If not, why?

In class discussion in depth on the zero morph model triggering phonological processes such as palatalization.

Now, before moving on to the next section, we should briefly mention a non-concatenative process in a non-concatenative system which does not conform to any templates or rules whatsoever.

The process we are talking about here is suppletion. Fully suppletive forms:

An example of full suppletion found in a lot of languages is the morphological difference between the cardinal and ordinal number 1.

In Arabic, the cardinal number 1 is 'waħad', but the ordinal number 1 is a suppletive form 'ʔawwal'.

Likewise, a lot of languages make use of suppletion in their most basic and most frequent verbs:

'taʕa!' 'come!' IMP. vs. 'žeeye/žiit' 'I'm coming/ I came'.

While we can account for non-concatenative templates by resorting to autosegmental phonology, such suppletion cannot be explained in that way.

It is precisely because non-concatenative templatic frameworks involve a sense of regularity in their forms that we're able to decompose and analyze them systematically, but suppletive forms allow for no such maneuvering.

Borrowed words are also a phenomenon that must be accounted for.

Consider these two words:

(3) 'ʕandaliib' 'nightingale' (Classical Arabic)

(4) 'rastir' 'to restart (something) (Lebanese Arabic)

We know that (3) must be a borrowed word because Arabic templates do not typically accommodate more than four consonants. This word, however, contains five consonants

'ʕ-n-d-l-b'

Forming the plural here is highly problematic, because there exists no pattern or template which is used for five-consonant words, as those do not indigenously occur in the language. The singular form, with five consonants, is borrowed as is, but the plural must somehow fit into a pattern.

Here, the language can either innovate a new template to accommodate for the extra consonant, or, the word must somehow be changed in order to fit a pre-existing template.

Knowing that the plural is 'ʕanaadil', we see that the language decided to drop the final consonant in order to make it fit a template which already exists. The template '$C_1aC_2aaC_3iC_3$' already exists in the broken plurals of words like 'fṭiira' 'pie' → 'faṭaayir' 'pies'. Although the singular form of the borrowed word does not conform to the singular template of 'pie' 'fṭiira', i.e. '$C_1(a)C_2iiC_3a$', the plural is made to conform by necessity.

Compare this to what happens in (4). This is a fairly newly borrowed word into the language. It was used in the context of restarting a router. 'Rastir L-router' 'Restart the router' IMP. clearly conforms to the template '$C_1aC_2C_3iC_4$', which is the imperative of quadriconsonantal verbs. The existence of four-consonant roots is debatable in and of itself, but it is treated here as a de facto root of the language. That said, the English word 'restart' contains five consonants 'r-s-t-r-t', which means that we would stumble upon the same problem of finding a consonantal slot for the fifth and ultimate consonant. Since the creation of a new template which fits five consonants is very difficult (but not unheard of or unattested), the borrowed word will have to 'take a hit' and lose that extra consonant, thus the verb becomes 'restar' instead of 'restart'.

Non-Concatenation in a Concatenative Framework:

We may want to consider the points discussed above, first, then expand on that.

Full suppletion:

As a non-concatenative process, it is abundant in concatenating languages.

A common case of suppletion can be illustrated through the example of the cardinal vs. ordinal number 1:

English 'one' but 'first'

Hungarian 'egy' but 'első'

Italian 'uno' but 'primo/a'

Persian 'yek' but 'avval' (Borrowed from Arabic, cf. above)

This may also be extended in this case to the number 2:

English 'two' but 'second'

Hungarian 'kettő' but 'második'

Italian 'due' but 'secondo'

Persian 'do' and 'dovvom' are clearly connected. We will get back to such forms in the discussion of partial suppletion/ base modification.

Question: Can you think of other examples of fully suppletive forms in English or other languages? (cf. above Arabic's 'come!' imperative and Hungarian 'gyere!' vs. 'jövök/jöttem')

On base modification in English:

While pairs like 'tooth' – 'teeth' are diachronically related, whereby the plural is derived from the singular by certain phonological changes, such a relationship is not synchronically available. The ablaut operation on the internal vowel of 'tooth' can only be seen as an instance of non-concatenative base modification. This is also the case with some of the 'irregular' verb pairs like 'think' – 'thought' and 'sing'- 'sang' etc.

So, while these forms are historically related, it is not the case that today we can derive one form from the other by means of a regular process of ablaut.

Such historical relics, while bearing a striking resemblance to other words in their paradigms, can only be treated as 'weak' suppletive forms.

Think of pairs like 'grass' and 'graze', 'bath' and 'bathe' etc.

The phonological environment which triggered final voicing for the verbs (as opposed to the voicelessness of the ultimate consonants of the noun counterparts) does not exist anymore. This voicing was conditioned by the presence of the infinitival suffix '-en' which disappeared after Middle English. This suffix would have placed the otherwise final consonants in an intervocalic position, thereby triggering voicing. Since such infinitival suffix does not exist anymore, the verbs which acquired final voicing through said suffix have lexicalized as such and preserved as

having voiced final consonants. In this sense, we can see how these words are historically related to one another, and not completely different as is the case in full suppletion.

Let's go back to Persian's 'do' 'two' and 'dovvom' 'second'. Clearly, these two forms bear resemblance to each other. What must have happened here is the presence of a labio-velar /w/ somewhere at the end of /do/ 'two', and when the ordinal numeral forming suffix is /om/, we would have gotten /dowom/ or /dowwom/ because of assimilation. It is then very easy to go from a labio-velar /w/ to a labiodental /v/ as in /dovvom/.

Think of a similar process that happened in Hungarian. I will not explain it here, go check an etymological dictionary or try to think about it yourselves ☺ The process I am talking about is 'szo' → 'szavak'. How come it is not 'szok'? Why do we have 'szot' for the accusative of 'szo' and not 'szavat'?

Question: Can you think of more such 'weak' suppletive forms in English or other languages?