Turkish—counteranalysis to Kabak & Vogel

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(Examples from K&V[1] and I&O[2])

Since K&V explicitly argue against lexical-phonology alternatives, I won't try that (though see below). Instead, let's try SPE-esque boundary symbols.

(1) Boundaries assumed

Regular suffixes have just a "+" (morpheme) boundary, but exceptional suffixes and clitics have a "#" word boundary.

Moreover, assume that insertion of a word into a lexical head position places # symbols on either side of it. (This is either stipulated by GEN or enforced by high-ranked constraints; either way, I won't show candidates that violate it.)

[Things are more complicated, or at least different, in SPE—see ch. 8, section 6.2]

(2) Lexical representations—again, this is not exactly SPE

root: #gel#
regular suffix: +di#
stress-disrupting suffix: #mA#
clitics (including null clitics): #mI#

Basic stress

(3) Constraints assumed (more to come)

STRESSBEFORE##: the syllable before a ## boundary must be stressed
CULMINATIVITY: a form (syntactic word) has exactly one primary stress

(4) How much is evaluated?

We do have to refer to a domain for stress, the syntactic word—or, say that the syntactic word is what gets evaluated by the grammar, e.g. using lexical and postlexical strata. What defines a syntactic word? Say it's a lexical head plus any affixes that get moved onto it.

What's different from the prosodic approach is that we needn't posit a purely phonological constituent (a p-word is not, in general, isomorphic to any morphological or syntactic constituent).

(5) Default final stress

	/##gel#+dI#+nIz##/ come-PAST-2PL	CULMINATIVITY	STRESSBEFORE##
a.	##gél#+di#+niz##		*!
b.	##gel#+dí#+niz##		*!
☞ *c.*	##gel#+di#+níz##		

[1] Baris Kabak & Irene Vogel (2001). The phonological word and stress assignment in Turkish. *Phonology* 18: 315-360.

[2] Sharon Inkelas & Cemil Orhan Orgun (2003). Turkish stress: a review. *Phonology* 20: 139-161 (squibs and replies).

Stress-disrupting affixes

(6) Stress goes before a stress-disrupting suffix or a clitic

LEFTMOST: stress should be as far to the left (in the syntactic word) as possible. (Count one violation for every intervening syllable.)

	/##gel##mA#+dI#+nIz##/ come-NEG-PAST-2PL	CULMINATIVITY	STRESSBEFORE##	LEFTMOST
☞ *a.*	##gél##me#+di#+niz##		*	
b.	##gel##mé#+di#+niz##		**!	*
c.	##gel##me#+dí#+niz##		**!	**
d.	##gel##me#+di#+níz##		*	*!**
e.	##gél##me#+di#+níz##	*!		

(7) If more than one stress-disrupting suffix, leftmost one wins

	/##gel##mA##sIn##/ come-NEG-3SG-IMP	CULMINATIVITY	STRESS BEFORE##	LEFT MOST
☞ *a.*	##gél##me##sin##		**	
b.	##gel##mé##sin##		**	*!
c.	##gél##mé##sín##	*!		

Stressed suffixes

MAX(stress): preserve underlying stress

(8) Stress is faithful to underlying specification

	/##bırak#+ÁrAk##/ leave-ADV	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##bırak#+árak##			*	**
b.	##bırak#+arák##		*!		***
c.	##bırak#+árák##	*!			**

(9) If more than one stressed suffix, left one wins

	/##yap#+ívAr#+ÍncA##/ leave-ADV	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##yap#+íver#+ince##		*	*	*
b.	##yap#+iver#+ínce##		*	*	**!*
c.	##yap#+íver#+ínce##	*!		*	*

(10) If stressed suffix and stress-disrupting suffix combine, left one wins

	/##yap#+Árak##mI##/ leave-ADV	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##yap#+árak##mı##			**	*
b.	##yap#+arák##mı##		*!	*	**
c.	##yap#+árák##mı##	*!		*	*

Here's the first big problem for this analysis: with these constraints and standard OT ranking, we have to decide which is more important: preserving underlying stress or preserving pre-## stress. Actually, there's no evidence for such a preference—it should always be the leftmost of those sites that wins:

	/##yap##mA#+Árak##/ leave-ADV	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☹ *d.*	##yáp##ma#+arak##		*!	*	*
💣 *e.*	##yap##ma#+árak##			**	**
f.	##yáp##ma#+árak##	*!		*	*

We can't just promote LEFTMOST, because that would give us initial stress all the time.

K&V's solution (I think) is to assign the multiple stresses and then keep the leftmost one. I&O's solution is to be faithful to the stress assigned on the innermost cycle. Final stress is assigned only at the end of the derivation, if no other stress has yet been assigned.

I can think of two ways to repair this analysis.

- Have derivational levels, with CULMINATIVITY ranked low on the earlier level, so that multiple stresses get assigned (all lexical stresses, plus one before each ##). On the next level, rank CULMINATIVITY, DEP(stress) >> LEFTMOST high, so that no additional stresses can be assigned and only the leftmost of the existing ones is kept.
- Use crucially tied constraints (in the sense of Tesar & Smolensky 2000[3]): add the violations in the two columns. (This is different from constraints that are variably ranked, or whose ranking can't be determined from the data.)
- Equivalently to a crucial tie, have a disjoined constraint (Crowhurst & Hewitt 1997[4]) MAX(stress)∨STRESSBEFORE##, which is satisfied as long as either underlying stresses are preserved or ##s are prestressed—I think this gets us in trouble in the case of multiple lexical stresses or multiple ##s, though: only CULMINATIVITY-violating candidates will satisfy the disjoined constraint in that case.

Example with crucially tied constraints:

	/##yap##mA#+Árak##/ leave-ADV	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *d'.*	##yáp##ma#+arak##		*	*	*
e'.	##yap##ma#+árak##			**	**!
f'.	##yáp##ma#+árak##	*!		*	*

(This works for all the above tableaux too—let's take a minute to check.)

(11) What if a suffix were both stressed and stress-disrupting?
It would just sound like it was stress-disrupting (LEFTMOST), so the learner would never realize that it was also supposed to be stressed.

[3] Bruce Tesar & Paul Smolensky (2000). *Learnability in Optimality Theory*. Cambridge, MA: MIT Press.
[4] Megan Crowhurst & Mark Hewitt (1997). Boolean operations and constraint interaction in Optimality Theory. Ms., UNC and Brandeis. ROA 229-1197.

Exceptionally stressed roots

MAX(stress) again.

(12) Stress is faithful to underlying specification

	/##ánkara##/ 'Ankara'	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFTMOST
☞ *a.*	##ánkara##			*	
b.	##ankára##		*	*!	*
c.	##ankará##		*		*!*
d.	##ánkará##	*!			

(13) Even when a stress-disrupting suffix is attached

	/##pencére##ylA##/	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##pencére##ylA##			**	*
b.	##penceré##ylA##		*	*	**!
c.	##péncere##ylA##		*	**!	

(14) And even when a stressed suffix is attached

	/##avrúpa#+lI#+laş#+ÁrAk##/	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##avrúpa#+lı#+laş#+arak##		*	*	*
b.	##avrupa#+lı#+laş#+árak##		*	*	**!***
c.	##avrúpa#+lı#+laş#+árak##	*!		*	*

(15) Why are there no roots lexically marked with final stress (i.e., root-final stress even when suffixed)?

K&V don't address the question. I&O's explanation is that stress is marked by a trochaic underlying foot:

av(rupa) *(anka)ra* *(σ -ma)* *(-ArAk)*

This foot must be realized within the morpheme or within the material that fills its subcategorization frame, so **bada(pa σ)* is forbidden as a lexical representation (or in any case, would neutralize with unmarked *badapa*). (This also explains, say I&O, why no consonant-only suffixes are stress-disrupting, except the copula *–y*, which is never word-final.)

Another possibility: when a word with nonfinal stress enters the language (presumably in unaffixed form), hearers must attribute lexical stress to it to explain its surface stress. But when a word with final stress enters the language, its surface stress can be explained by the grammar alone, so the (simpler) unmarked underlying form is assumed.

Compounds

Not including phrase-like compounds discussed by I&O, which just get final stress.

(16) First element is stressed

	/##baş##bakan##/ head-minister	CULMINATIVITY	MAX(stress)	STRESSBEFORE##	LEFTMOST
☞ *a.*	##báş##bakan##		*		
b.	##baş##bákan##		**!		*
c.	##baş##bakán##		*		*!*
d.	##báş##bakán##	*!			

(17) What if the first element has exceptional stress?
We don't have examples, but let's assume that the first element keeps its stress (that's what everyone predicts):

	/##ánkara##bakan##/ (hypothetical)	CULMINATIVITY	MAX(stress)	STRESSBEFORE##	LEFTMOST
☞ *a.*	##ánkara##bakan##			**	
b.	##ankará##bakan##		*	*	*!*
c.	##ánkará##bakan##	*!		*	
d.	##ankara##bakán##		*	*	*!***

(18) What if both elements have exceptional stress?
Again, I assume that only the first element gets to keep its stress (what everyone predicts).

	/##ánkara##bárbara##/ (hypothetical)	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##ánkara##barbara##		*	**	
b.	##ankara##bárbara##		*	**	*!**
c.	##ánkara##bárbara##	*!		**	
d.	##ankará##barbara##		**	*	*!*
e.	##ankara##barbará##		**	*	*!****

(19) What if just the second element has exceptional stress?
First member still gets stressed (same issues as in (10))

	/##baş##bárbara##/ (hypothetical)	CULMINATIVITY	MAX(stress)$_{root}$	STRESS BEFORE##	LEFT MOST
☞ *a.*	##báş##barbara##		*	*	
b.	##baş##bárbara##			**	*!
c.	##báş##bárbara##	*!		*	

(20) What happens when a compound gets a stress-disrupting suffix?
Don't know. This analysis predicts that stress should remain on the compound:

	/##baş##bakan##ma##/ (hypothetical)	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *a.*	##báş##bakan##ma##			**	
b.	##baş##bakán##ma##			**	*!*
c.	##báş##bakán##ma##	*!			

	/##ánkara##bakan##ma##/ (hypothetical)	CULMINATIVITY	MAX(stress)	STRESS BEFORE##	LEFT MOST
☞ *d.*	##ánkara##bakan##ma##			***	
e.	##ankará##bakan##ma##		*	**	*!*
f.	##ankara##bakán##ma##		*	**	*!***
g.	##ánkará##bakán##ma##	*!			

Same story if compound gets a regular or a stressed suffix.

Clitics with both full and reduced forms (K&V p. 330)

(21) Full vs. reduced

Assume that when the full-form copula is used, the inflectional affixes all move on to it (or it moves onto them, or the copula is inserted as a root---pick your theory of morphosyntax), so there are two syntactic words: *kabá* ***i****-di-níz*.

The reduced copula, by contrast, moves, along with the inflectional affixes, onto the main verb (or it moves onto them, or only the main verb is inserted as a root and the rest are inserted as affixes), so there is one syntactic word: *kabá##****y****-dı-nız*.

Same goes for the 'with' postposition.

Vowel harmony

Straightforward—we can just adopt K&V's analysis, which makes no reference to the p-word.

Syllabification

Just assume that syllabification, like stress, is applied to each syntactic word. (We would need to appeal to prosodic constituents only if the domain of syllabification was different from the syntactic word.)

Lexical phonology?

K&V discuss van der Hulst & van de Weijer 1991 (H&W) on pp. 320-321.

According to H&W, each regular suffix gets stressed when it's added, producing a clash that's resolved by deleting the preceding stress:

gél → gél+dí → gel+dí → gel+dí+níz → gel+di+níz

Exceptional suffixes, on the other hand, bear no stress, so there's no clash and we end up with two stresses. The culminativity violation is resolved in favor of the first stress:

gél → gél+me → gél+me+dí → gél+me+dí+níz → gél+me+di+níz → gél+me+di+niz

K&V's first objection is that you have to do a lot of operations if there are a lot of affixes (see (8)). So what?

Their second object is that H&W predict secondary stress on syllables that need to be treated as extrametrical elsewhere. But since K&V don't say deal with secondary stress at all, we can't compare the two analyses there.

Appendix: Sezer stems

K&V claim that the Sezer pattern isn't a real generalization.
I&O, though, say that when you take out the following types of place names

- those containing stressed or stress-disrupting suffixes
- those containing a (nonphrasal) compound
- those formed by other place-name suffixes
- those formed by a zero morpheme that applies to words ending in *–lEr*, *-mEz*
- underived place names

...99% of what's left displays Sezer stress (and, they show some evidence that it's productive).

The above analysis has nothing to say about how a zero derivation can impose a special stress grammar.