

Outline

- 1 Intro
- 2 Day 1: SPE and sons
- 3 Day 2: The prosodic hierarchy and morphology
- 4 Day 3: Morphology within OT**
- 5 Day 4: GP and CVCV-phonology
- 6 Day 5: DM-inspired approaches

OT

OT needs no introduction, and certainly not by a CVCV proponent - it's like an atheist talking about God!

This said, this is of course not an intro class to OT, rather a moment during which we observe, discuss, and comment on some interesting aspects of three OT analyses of morphophonological facts.

Let's keep in mind one central thing: OT is a theory of constraint interaction, that is of computation and not of representation.

Burzio (1998)

As Burzio writes in the abstract, “[t]his article argues that Italian agentive nouns in *-ore* are indeed based simultaneously on both the infinitive and the past participle, and that affixal allomorphs are in general also in multiple correspondence with one another, both facts evading any derivational account.”

- Burzio argues for a parallel version of derivational morphology
- There is no such thing as basic form
- Allomorphy is a relation between surface forms

Burzio (1998)

Burzio's starting point and basic claims:

- (41)
- a. Emergence of the Unmarked IO-F \gg Phon \gg OO-F
 - b. Cyclic effects OO-F \gg Phon \gg IO-F
- (42)
- a. Surface to surface relations are sufficient to deal with allomorphy
 - b. Morphologically complex words can have multiple bases.

Burzio (1998)

Nouns in *-ore* in Italian. Traditionally, such items are described as being formed from a past participial base; in fact, things are more complex.

(4) Gloss	Infinitive	Participle	<i>-ore/-ivo</i> derivative
a. <i>adapt</i>	adatt-áre	adatt-át-o	adatt-at-óre
b. <i>provide</i>	provved-ére	provved-út-o	provved-it-óre
c. <i>sell</i>	vénd-ere	vend-út-o	vend-it-óre
d. <i>mail</i>	sped-íre	sped-ít-o	sped-it-óre
e. <i>compress</i>	comprim-ere	compres-s-o	compres-s-óre
f. <i>win</i>	vínc-ere	vín-t-o	vinc-it-óre ←
g. <i>ascend</i>	ascénd-ere	ascé-s-o	ascen-s-óre ←
h. <i>exceed</i>	eccéd-ere	ecced-út-o	ecces-s-ívo
i. <i>possess</i>	possed-ére	possed-út-o	posses-s-óre
j. <i>aggress</i>	aggred-íre	aggred-ít-o	aggres-s-óre

Burzio (1998)

Central idea: metrical OO-F constraints, expressing the notion that morphologically related words tend to be metrically consistent with one another (Burzio 1998:83)

(8)

	vinc- -út-o -t-	syl	Metr-OO-F		Segm-OO-F	
			suffix: -út-	stem: vinc-	suffix: -ut->>-t-	stem: vinc-
a.	vinc-út-o			*		
b.	vinc-ut-o		*			
c.	vinc-t-o	*			*	
d.	vin-t-o				*	*

Analysis of so-called syncopated participles

Burzio (1998)

Let's have a look on this paragraph, which appears at page 85: "It is worth pausing for a moment here to consider the status of the material given in the upper left-hand comer in (8) which serves as the base for the calculation of the participle. One crucial aspect of it is that each piece comes with its own metrical parse, which is what enables us to account for the syncope. **This means that these cannot really be traditional 'underlying representations' of the various morphemes.** To maintain that view, one would have to especially encode the stress into the URs of *vínc-* and *-út-*, clearly the wrong move, given that there is nothing special about the stress of either, just the regular penultimate or antepenultimate stress of Italian. Moreover, the antepenultimate stress of *vínc-ere* depends on the metrical properties of the suffix (unstressed, unlike that of the other conjugations), and that is not part of the UR of *vínc-*. On the other hand, the forms in question can also not be surface forms, for the simple reason that they are not words, but only fragments (in that respect, though not in others, the notion of UR and its ancillary notion of 'morpheme' seemed correct).

Burzio (1998)

(10) Gloss (Infin.)	Infinitive	Participle
a. <i>assume</i>	assúm-ere	assún-T-o
a'. <i>oppress</i>	opprím-ere	opprés-S-o
b. <i>hand</i>	pórg-ere	pór-T-o
b'. <i>emerge</i>	emérg-ere	emér-S-o
c. <i>ask</i>	chiéd-ere	chiés-T-o
c'. <i>laugh</i>	ríd-ere	rí-S-o
c'. <i>concede</i>	concéd-ere	concés-S-o
d. <i>hide</i>	nascónd-ere	nascós-T-o
d'. <i>expand</i>	espánd-ere	espán-S-o
d'. <i>ascend</i>	ascénd-ere	ascé-S-o
e. <i>write</i>	scrív-ere	scrít-T-o
e'. <i>move</i>	muóv-ere	mós-S-o

Burzio (1998)

(14) Gloss (Infin.)	Infinitive	Participle	Derivatives
a. <i>sculpt</i>	scolp-íre	scolp-ít-o	scul-T-óre
a'. <i>abolish</i>	abol-íre	abol-ít-o	abol-it-óre
b. <i>assert</i>	asser-íre	asser-ít-o	asser-T-ívo
b'. <i>wound</i>	fer-íre	fer-ít-o	fer-it-óre
c. <i>scan</i>	scand-íre	scand-ít-o	scan-S-íone
c'. <i>prepare lavishly</i>	imband-íre	imband-ít-o	imband-it-óre
d. <i>invert</i>	invert-íre	invert-ít-o	inver-S-íone
d'. <i>lie</i>	ment-íre	ment-ít-o	ment-it-óre
e. <i>adhere</i>	ader-íre	ader-ít-o	ade-S-ívo
e'. <i>discolor</i>	scolor-íre	scolor-ít-o	scolor-it-úra
f. <i>aggress</i>	aggred-íre	aggred-ít-o	aggres-S-óre
f'. <i>hear</i>	ud-íre	ud-ít-o	ud-it-ívo
g. <i>execute</i>	esegu-íre	esegu-ít-o	esecu-T-óre
g'. <i>chase</i>	insegu-íre	insegu-ít-o	insegu-it-óre

Burzio (1998)

(15) agcred-ít-óre -s-	syl	Metr-OO-F		Segm-OO-F	
		suffix: -óre	stem: agcred-ít-	suffix: -ore	stem: agcred-it->> agcred-s-
a. àgred-it-óre			*		
b. àggred-ít-ore		*			
c. àggred-s-óre	*				*
d. ⚡ àggres-s-óre					**

As in the previous tableau, the constraint *syl* rules out the potentially-winning candidate: the job of this constraint is similar to a readjustment (post-lexical) rule.

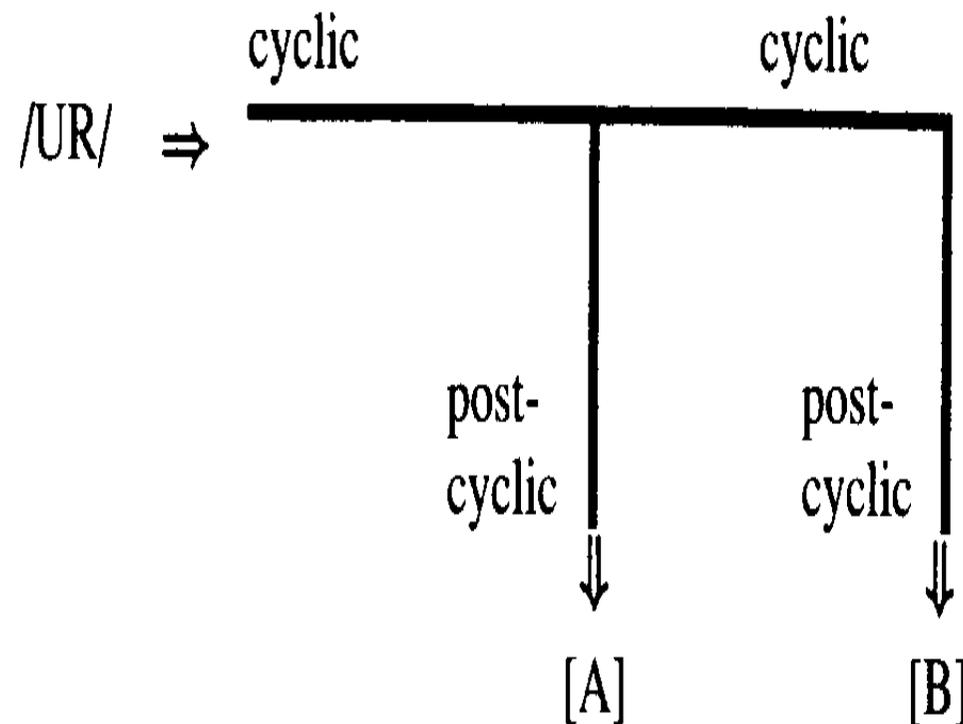
Burzio (1998)

(23)

		Metr-OO-F		Segm-OO-F	
vint-óre		suffix: -óre	stem: vint-	suffix: -ore	stem: vint-
a.	vint-óre		*		
b.	vint-ore	*			
c.	vint-IT-óre				*

Burzio (1998)

What a derivational framework (=cyclic derivation) needs to do to capture the similarity between [A] and [B]:

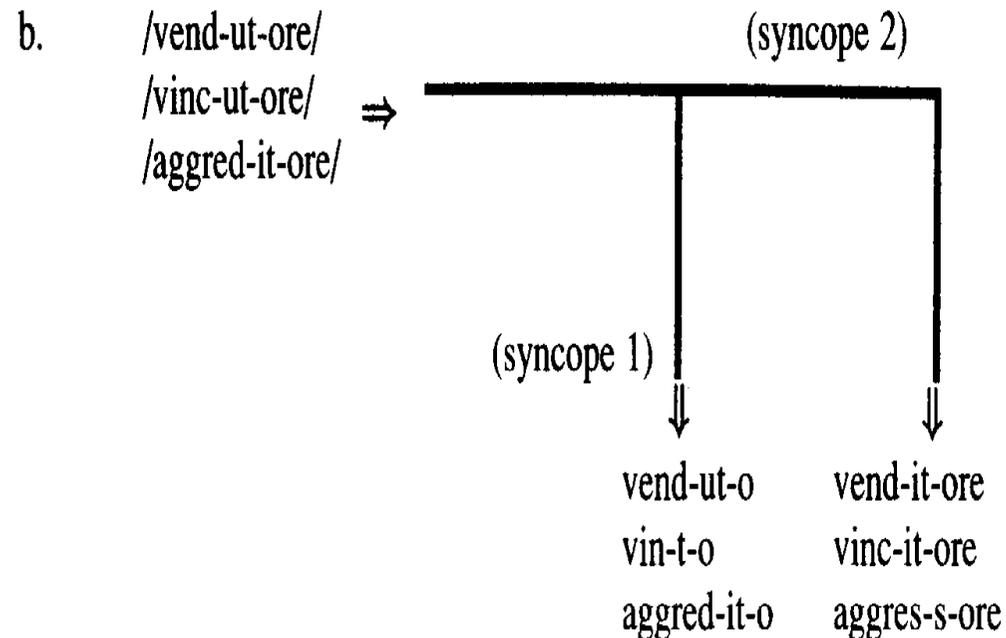


Burzio (1998)

Burzio (1998:106): “Specifically, similarities between the two words A and B in ([above]) must be attributed to either the common UR, or to the ‘cyclic’ part of the derivation leading to A, also common. In contrast, the differences need to be attributed to those portions of the derivation which the two words do not share (the ‘post-cyclic ones’). A characterization of the three contrasting paradigms in (a) would on this approach, and in its essentials, be as in (b).”

a.

vendere	venduto	venditore
vincere	vinto	vincitore
aggredire	aggredito	aggressore



Burzio (1998)

Burzio concludes as follows: “[T]he derivational model would be forced to enrich underlying representations with ad-hoc diacritic marks that may steer the derivations in the right directions. The artificial encoding of surface properties into underlying representation, however, is simply the admission that the surface, rather than the underlying representation is relevant.”

Raffelsiefen (1999)

In Raffelsiefen (1999), OO-correspondence is taken to be responsible for the following generalization observed in English: “vowel-initial suffixation differs from consonant-initial suffixation in that it exhibits phonological effects.”

The author argues “that reference to output forms alone is sufficient for a description of English morphophonology if a) output forms are represented phonemically rather than phonetically and b) there are constraints which require certain features of derived words to be identical to the corresponding features in their base.

Raffelsiefen (1999)

a. médecine+al	→	medícinal	b. áccurate+ness	→	áccurateness
sýnonym+ous	→	synónymous	devélop+ment	→	devélopment
márginal+ity	→	margináality	pílot+less	→	pílotless
móllusc+ous	→	mollúscous	frólic+some	→	frólicsome
frágment+al	→	fragméntal	sávage+dom	→	sávagedom
cólumn+al	→	colúmнар	éffort+ful	→	éffortful

Raffelsiefen (1999)

- IDENT(S): A stressed syllable in a derived word must correspond to a stressed syllable in the base.
- *CLASH: Two adjacent stressed syllables are prohibited.
Domain: pword.
- M-PARSE: Morphemes are parsed into morphological constituents (this avoids unattached affixes)

(43) **giráfféer* (gap accounted for)

	dʒərə́ɛf-íyr	IDENT(S)	*CLASH	M-PARSE
	(dʒɪrə́fiyr) _ω ¹⁵	*!		
	(dʒərə́ɛfiyr) _ω		*!	
✓	dʒərə́ɛf-íyr			*!

Raffelsiefen (1999)

(44) *Tàiwanése*

taywán-íyz		M-PARSE	*CLASH	IDENT(S)
√	(tàywəníyz) _ω			*
	(taywàníyz) _ω		*!	
	taywán-íyz	*!		

(45) **Remàin+átion* not possible (gaps are not random!)

rəméyn-éyşən		IDENT(S)	*CLASH	M-PARSE
	(rəmənəyşən) _ω	*!		
	(rəməynəyşən) _ω		*!	
√	rəméyn-éyşən			*

Raffelsiefen (1999)

- $*L_iL_i^1$: Identical syllable nodes consisting of liquids are prohibited.

- a. $*XVI+al$ *appéalal, *annúlal, *exhálal, *assáilal, *revéalal, *instálal, *aváilal, *beguílal, *compélal, *compílal, *concélal, *condólal, *consólal, *contrólal, *curtáilal, *deráilal, *entáilal, *distílal, *enrólal, *excélal, *fulfílal, *inhálal, *instíllal, *propélal, *preváilal, *rebélal, *recállal, *repélal, *revéalal, *retáilal
- b. $*XVIC_1+al$ *insúltal, *invólval, *absólval, *assáultal, *consúltal, *dissólval, *engúlfal, *evólval, *exáltal, *rebúildal, *repúlsal, *resólval, *resúltal, *revóltal, *withhóldal
- c. $*XVIVC_0+al$ *relíeval, *relíal, *relápsal, *relátal, *reláxal, *reláyal, *reléasal, *reléntal, *deláyal, *delíghtal, *delúdal, *collápsal, *colléctal, *collídal, *belíeal, *belíeval, *belóngal

Raffelsiefen (1999)

The adjectival suffix *-al* satisfies the constraint $*L_iL_i^1$ not by causing gaps, but by violating an identity constraint.

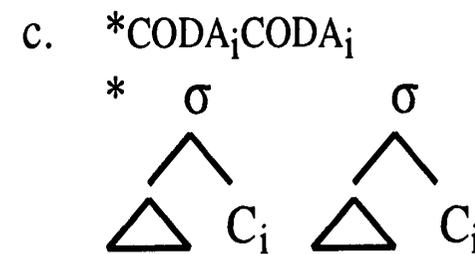
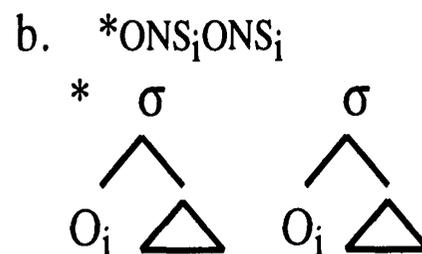
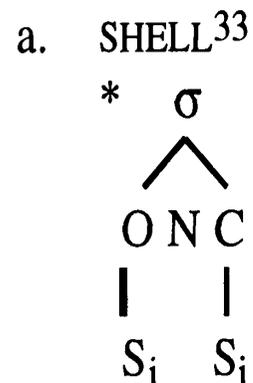
- | | | | |
|----|---------------------------|----|-------------------------|
| a. | mole+al → molar ~ molal | b. | lobule+al → lobular |
| | corolla+al → corollar | | nodule+al → nodular |
| | enamel+al → enamellar | | spherule+al → spherular |
| | arteriole+al → arteriolar | | sporule+al → sporular |
| | fibrilla+al → fibrillar | | zonule+al → zonular |
| | protocol+al → protocolar | | aedicule+al → aedicular |

Raffelsiefen (1999)

Constraints on dissimilation: gaps in the distribution of *-ity* suffixation:

- a. *acúity, *complétity, *òbsolétity, *remóity, *discreétity, *conténtity,
 *occúltity, *fáintity, *quáintity, *pàramóuntity, *exáctity, *abrúptity,
 *áptity, *inéptity, *corrúptity, *diréctity, *compáctity, *abstráctity,
 *intáctity, *corréctity, *stríctity, *dèrelíctity, *distíntity, *succíntity,
 *extíntity, *defúntity, *disjúntity
- b. **covértity, **sèparátity, **affèctionátity, **quíétity, **pèrmanéntity,
 **perféctity, **consìderátity

(46) Constraints



Raffelsiefen (1999)

(47) *émphasize*, **cathársize*

émfəsis-áyʒ		IDENT(S)	ONS _i ONS _i	*CLASH	M-PARSE
	(émfəsisàyz) _ω		*!		
√	(émfəsàyz) _ω				
	(émfəyz) _ω			*!	
	émfəsis-áyʒ				*!
kəθársis-áyʒ		IDENT(S)	ONS _i ONS _i	*CLASH	M-PARSE
	(kəθársisàyz) _ω		*!		
	(kəθársàyz) _ω			*!	
	(kæθərsàyz) _ω	*!			
√	kəθársis-áyʒ				*

Raffelsiefen (1999)

The constraint *VV:

- | | |
|--|--|
| <p>a. m\acute{u}sket+\acute{e}er → m\grave{u}sket\acute{e}er
 w\acute{e}apon+\acute{e}er → w\grave{e}apon\acute{e}er
 j\acute{a}rgon+\acute{e}er → j\grave{a}rgon\acute{e}er
 sl\acute{o}gan+\acute{e}er → sl\grave{o}gan\acute{e}er</p> | <p>b. baz\acute{o}oka+\acute{e}er → \emptyset
 torp\acute{e}do+\acute{e}er → \emptyset
 l\acute{i}ngo+\acute{e}er → \emptyset
 m\acute{o}tto+\acute{e}er → \emptyset</p> |
| <p>a. Ch\acute{i}na+\acute{e}se → Ch\grave{i}n\acute{e}se
 M\acute{a}lta+\acute{e}se → M\grave{a}lt\acute{e}se
 B\acute{u}rma+\acute{e}se → B\grave{u}rm\acute{e}se</p> | <p>b. J\acute{a}va+\acute{e}se → J\grave{a}van\acute{e}se
 B\acute{a}li+\acute{e}se → B\grave{a}lin\acute{e}se
 G\acute{o}a+\acute{e}se → G\grave{o}an\acute{e}se</p> |

Raffelsiefen (1999)

The prosodic structure of suffixed words according to Raffelsiefen (1999):

- (48)
- a. In English, the pword is the domain for morphophonological constraints
 - b. Only vowel-initial and glide- initial suffixes induce phonological effects: this observation is accounted for by the integration of those suffixes, but not consonant-initial suffixes, into the pword of the stem.

Raffelsiefen (1999)

“[this] difference can be described in terms of a systematic contrast in the prosodic structure of the words. Crucially, the constraint *CLASH would be satisfied in *béelike* if the consonant-initial suffix were not integrated into the pword of the stem as is shown [below]” (Raffelsiefen 1999:253)

béelike	*stéelìze (cf. copperize)
cówlìke	*ówlìze (cf. vulturize)
fúrlìke	*gírlìze (cf. womanize)

biy+layk		*CLASH
	(bíy) _ω làyk	
stiyl+ayz		
	(stíylàyz) _ω	*

Raffelsiefen (1999)

- ALIGN SUFFIX: it aligns the left edge of a suffix with the right edge of a pword thereby ensuring that suffixes are not integrated into the pword of their stem.
- ONSET: Syllable must have a [+consonantal] onset

biy+layk		ONSET	ALIGN SUFFIX
✓	(bíy.) _ω làyk		
	(bíy.làyk) _ω		*!

(stíyl) _ω -ayz		ONSET	ALIGN SUFFIX
✓	(stíyl.) _ω àyz	*!	
	(stíy.làyz) _ω		*

“[...] ALIGN is a constraint family with a uniform template: the left or right edge of a given unit coincides with the left or right edge of another unit. The units in question may be phonological, morphological or syntactic, and both units involved in an alignment constraint may belong to the same area” (Scheer 2011:389)

Raffelsiefen (1999)

Recall:

- (49)
- a. Class I: -ous, -al, -ity, -ize, -ify, ...
 - b. Class II: -ness, -less, -ful, -hodd, -ish, ...
- (50)
- a. Class I: attaches also to stem, triggers stress shifts, triggers segmental adjustments.
 - b. Class II: none of the above.

“To summarize, descriptions of English morphonology in terms of arbitrary affix-classes fail to capture the generalization that the onset of a suffix determines whether or not it exhibits phonological effects. Those descriptions also fail to express the generalization that in English phonological effects in word formation are found only within the domain of syllabification.”

(Raffelsiefen 1999:262)

Wolf (2016)

Maltese stress is a very well-known case study supporting the transformational cycle in phonology.

(51) Syncope of vowels in unstressed open syllables underapplies in verb stems with pronominal (object-marking) suffixes.

(52) Cyclic stress in Maltese

(a) /ħataf-Ø _{3.masc.sg.subj} /	[ħa.taf]	‘he snatched’
(b) /ħataf-na _{1pl.subj} /	[ħtaf.na]	‘we snatched’
(c) /ħataf-Ø _{3.masc.sg.subj} -na _{1pl.obj} /	[ħa.ˈtaf.na]	‘he snatched us’

Wolf (2016)

Stress in Maltese:

- (53) a. On the ultima, if it is superheavy (or the word is monosyllabic), else
- (i) On the penult, if it is heavy (or the word is bisyllabic), else
- (ii) On the antepenult.

(54) Cyclic derivation

	'we snatched'	'he snatched us'
Input	[ħataf-na]	[[ħataf-Ø]-na]
<i>Cycle 1</i>		
Stress	ħa.'taf.na	'ħa.taf
Syncope	'ħtaf.na	<i>no change</i>
<i>Cycle 2</i>	<i>n/a</i>	
Stress		ħa.'taf.na
Syncope		<i>no change</i>
Output	['ħtaf.na]	[ħa.'taf.na]

Wolf (2016)

A problem arises: “cyclic stress, as diagnosed by the underapplication of syncope in object-marked verbs, occurs only with consonant-final verb stems. Vowel-final verbs by contrast do permit syncope of the first stem vowel when stress shifts rightwards under object suffixation.” (Wolf 2016:328).

(55) *mela* ‘to fill’

[mlɪ:ni]	‘he filled me’	[mlɪ:na]	‘he filled us’
[mlɪ:k]	‘he filled you.SG’	[mlɪ:kom]	‘he filled you.PL’
[mlɪ:h]	‘he filled him’	[mlɪ:hom]	‘he filled them’
[mlɪ:ha]	‘he filled her’		

(56) *sewa* ‘to cost’

[swɪ:li]	1sg IDO	[swɪ:lɪna]	1pl IDO
[swɪ:lek]	2sg IDO	[swɪ:lkom]	2pl IDO
[swɪ:lu]	3sg masc. IDO	[swɪ:lhom]	3pl IDO
[swɪ:lha]	3sg fem. IDO		

Wolf (2016): Theoretical tools

(57) OT-Candidate Chains

Gradualness: Given a chain $\langle \dots, l_i, l_{i+1}, \dots \rangle$, l_{i+1} can differ from l_i by the performing of at most one basic operation.

Harmonic improvement: Given a chain $\langle \dots, l_i, l_{i+1}, \dots \rangle$, l_{i+1} must be more harmonic than l_i , given the constraint ranking of the language in question.

Local Optimality: Let $\langle f_1, f_2, \dots, f_n \rangle$ be a valid chain in language L , and let $\{g_1, g_2, \dots, g_m\}$ be the set of all the forms which could be produced by applying an operation of type T to f_n . Then $\langle f_1, f_2, \dots, f_n, g_i \rangle$ is not a valid chain of L unless g_i is the most harmonic member of the set $\{g_1, g_2, \dots, g_m\}$. (*Informally*: starting from any given point, if there is more than one way of doing some operation, the grammar may place under consideration only the initially-best way of doing that operation.)

(58) Multi-step derivations controlled by PRECEDENCE

PREC(A, B)

Assign a violation-mark for every time that:

(a) An operation of type B occurs and it is not preceded by an operation of type A.

or

(b) An operation of type B occurs and it is followed by an operation of type A.

Wolf (2016)

(59) PRECEDENCE applied to Maltese

(13) PREC(build-PWd, Insert-obj)

Assign a violation-mark for every time that:

- (a) An object-marker morph is inserted, and this was not preceded by earlier construction of a PWd; or
- (b) An object-marker morph is inserted, and is followed by insertion of a PWd.

(60) Prosodic constraints

(16) NONFINALITY(Ft) (Prince & Smolensky [2004/1993: 51]; Gouskova [2003: 24])

Assign one violation-mark if the head foot of a PWd is final in the PWd.

(17) ALL-FOOT-RIGHT (Prince & Smolensky [2004/1993: 46]; McCarthy & Prince [1993b])

The right edge of every foot is aligned with the right edge of the PWd.

(Violations assessed gradiently by syllables.)¹¹

Wolf (2016)

- (19) WDCON (cover constraint from Selkirk [1995: 7]; cf. Prince & Smolensky's [2004/1993: 51] LEX \approx PR)

The left and right edges of every lexical word must coincide, respectively, with the left and right edges of some prosodic word.

Insertion of object marker, or laying down PWD, are harmonically improving

<i>Input from (24b)</i>	ħa.taf-1PL	MAX-M	WDCON	WSP	NONFIN (Ft)	AFR	EXH (wd)	MAX -V
<i>FFC</i>	a. ħa.taf-1PL	1	1					
<i>insert morph</i>	b. \rightarrow_L ħa.taf ^o .na		1					
<i>Build PWD</i>	c. \rightarrow_L ('ħa)taf -1PL	1				1	1	
	d. ('ħa.taf) -1PL	1			1			
	e. ħa('taf) -1PL	1			1		1	
	f. (ħa)('taf) -1PL	1			1	1		

Wolf (2016)

With stem prosodified, insertion of suffix is harmonically improving

<i>Input from (25c)</i>		('ḥa)taf -1PL	MAX- M	WDCON	WSP	NONFIN (Ft)	AFR	EXH (wd)	MAX -V
<i>FFC</i>	a.	('ḥa)taf -1PL	1				1	1	
<i>insert morph</i>	b. → _L	('ḥa)taf'.na			1		2	2	
<i>Delete V</i>	c. ☞	('ḥatf) -1PL	1			1			1

Wolf (2016)

With suffix added, putting stress on stem-final syllable is now harmonically improving

<i>Input from (28b)</i>		MAX-V (heavy)	WSP	NON FIN (Ft)	AFR	EXH (wd)	MAX -V
<i>FFC</i>	a. ('ħa)taf ^h .na		1		2	2	
<i>Add foot</i>	b. → _L (ħa)(^h taf ^h)na				3	1	
	c. (ħa)(^h taf ^h .na)			1	2		
	d. ↵ (ħa)taf ^h (^h na)		1	1	2	1	
<i>Delete V</i>	e. → _L ('ħa)taf ^h n		1		1	1	1
	f. ↵ ('ħat ^h)fna	1			1	1	1

Wolf (2016)

This tableau derives non-cyclic stress:

From unprosodified stem + suffix, stressing stem-final syllable locally optimal

<i>Input from (25b)</i>	ħa.ta ^f .na	MAX- M	WDCON	WSP	NONFIN (Ft)	AFR	EXH (wd)	MAX -V
<i>FFC</i>	a. ħa.ta ^f .na		1					
<i>Build PWd</i>	b. → _L ħa(ˈta ^f)na					1	2	
	c. (ˈħa.ta ^f)na			1		1	1	
	d. ħa(ˈta ^f .na)				1		1	
	e. (ħa.ta ^f)(ˈna)			1	1	1		
	f. (ħa)(ˈta ^f .na)				1	2		
	g. (ħa)(ˈta ^f)na					3	1	
	h. ħa(ħa.ta ^f)(ˈna)				1	1	1	
	i. (ħa)ta ^f (ˈna)			1	1	2	1	
	j. ħa.ta ^f (ˈna)			1	1		2	
	k. (ˈħa)ta ^f .na			1		2	2	

Wolf (2016)

V-ending stems are exclusively non-cyclic:

(43) *Competition of derivational paths: candidate without 'cyclic' stress wins*

	FILL-1PL	PREC (IDENT(long), build-PWd)	PREC (build-PWd, ins-obj)	AFR	EXH (wd)	MAX -V
d.	<FILL-1PL, me.la-1PL, mela:na, me(ˈla:)na >		2	1	2 W	L
e.	→ <FILL-1PL, me.la-1PL, mela:na, me(ˈla:)na , (ˈmla:)na >		2	1	1	1
h.	<FILL-1PL, mela-1PL, (ˈme)la -1PL, (ˈme)la:na , (me)(ˈla:)na >	2 W	L	3 W	1	L

Wolf (2016)

Wolf concludes as follows: “The distribution of syncope in Maltese shows that neither cyclic stress nor its absence is an immutable property of the language. Normally there is cyclic stress before object markers, but this fails to obtain with vowel-final stems. As we just saw, though, vowel-final stems can and do undergo cyclic stress before other types of suffixes. In this paper I have shown that such facts obtain easily in a theory like OT-CC (and specifically the OI variant of it) where the ordering of processes takes the form of violable pairwise ordering statements. **The pressure to assign stress before object suffixation is overridden by a pressure to defer stress until after (pre-suffixal) lengthening”**.

References of today's class:

- Burzio, L. 1998. Multiple Correspondence. *Lingua*, 104: 79-109.
- Raffelsiefen, R. 1999. Phonological constraints on English word formation. In *Yearbook of Morphology 1998*, (eds) G. Booij & J. van Marle, pp. 225-287. (*Yearbook of Morphology* 8). Dordrecht: Kluwer.
- Scheer, T. 2011. A guide to morphosyntax-phonology interface theories : how extra-phonological information is treated in phonology since Trubetzkoy's *Grenzsignale* (Part I, chap. 1 to 12, with special focus on chapters 5/6 and 11/12)
- Wolf, M. 2016. Cyclicity and non-cyclicity in Maltese: Local ordering of phonology and morphology in OT-CC. In J. J. McCarthy & Pater (eds.), *J. Harmonic Grammar and Harmonic Serialism*. Equinox Publishing, 327-268.