

## 24.964 Topics in Morpho-Phonology:

The analysis of cyclic and pseudo-cyclic phenomena

**When and Where:** M 2-5, 32-D461

**Instructors:** Donca Steriade and David Pesetsky

**Prerequisites:** Some phonology, some understanding of OT, some syntax. Ask us.

**Requirements:** Readings, 4-5 assignments, term paper (expanding one assignment).

**Website:** <http://stellar.mit.edu/S/course/24/sp13/24.964/>

### **Description:**

In these lectures, we propose to explore some well-known problems in the functioning of the phonological cycle; to examine and debate some solutions. We will also document and solve some less well-known problems that bear some resemblance to the cycle. A central topic will be a proposed unified view of all cyclic-like interactions in phonology, based on recent work. A related important goal of the class will be the clarification or elimination (not yet sure which) of differences between cyclic computations, as motivated in phonology, and cyclic spell-out in syntax.

This is a collaborative venture. The two instructors will take turns proposing alternative solutions to problems laid out. Exercises will be designed to give a chance to all participants to engage in the debate. After completion, the problems will be discussed in class.

### Course schedule (annotations and readings below)

(2/11) The first problem: what is a cyclic base.

(2/19) Continued [Note: 2/19 is a Tuesday.]

(2/26) The second problem: cyclicity without containment

(3/4) Continued

(3/11) The third problem: the pseudo-cycle

(3/18) Continued

(3/25) Spring break

(4/1) The fourth and fifth problem: non-local and multiple bases.

(4/8) Continued

(4/15): Patriots Day

(4/22) The sixth problem: base priority in anti-homophony effects

(4/29) David TBA

(5/4) David TBA

(5/11) David TBA

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### Annotated schedule

#### (2/11 and 2/19) Review. The first problem: what is a cyclic base.

The phonological cycle is a mechanism allowing complex expressions to inherit phonological properties from their subconstituents. It is needed when phonological properties are predictable *inside* a subconstituent, but hard to predict in larger expressions containing it: e.g. stress in *chállengeable* is unusual, but predictable in *chállenge*. The stress of the former word was inherited from the latter. Current work on the cycle is divided on what forms can transmit their properties to larger units (= can be *bases* or 1<sup>st</sup> *cyclic domains* of those units). Some evidence suggests that only words/phrases that surface in isolation can be bases. That generalization has recently been disputed, but relevant evidence is limited. We think there is a way to explore this question more extensively. Closer examination of all cases seems consistent with just one view.

#### Readings:

- a. Background: Chomsky, Halle and Lukoff 1956, Chomsky and Halle 1968
- b. Bases as isolation forms: Brame 1974, Benua 1998, Kenstowicz 1998; Borowsky & al 1999
- c. No isolation-form condition: Trommer 2013, Strycharczuk 2012, Bermúdez-Otero 2010

#### (2/26-3/4) The second problem: cyclicity without containment

We analyze phenomena that are similar to cyclic inheritance in displaying the usual asymmetry between base and a derivative that inherits base properties (as in *chállenge-chállengeable*), but where arguably neither form contains the other. The pairs discussed are syntactically related, e.g. verb forms with same aspect. The analysis of these cases suggests a new take on the cycle.

#### Reading:

- a. Background: Albright 2005, Burzio 2005, Wolf 2008
- b. Data+analysis: Steriade 2013 (to appear)

#### (3/11-3/18) The third problem: pseudo-cyclic effects

Several phonological systems allow certain forms to appear in morphosyntactically unexpected contexts, if their presence there improves the phonology: e.g. French *nouvelle* [nuvɛl] ‘new-fem.’ avoids hiatus before masculine V-initial nouns, e.g. in *nouvel ami* ‘new friend (masc.)’. We review a collection of these cases and integrate their analysis into proposals already made.

Reading: Bonet and Torres-Tamarit 2009, Steriade 1999, Steriade 2008

#### (4/1 and 4/8) The fourth and fifth: non-local bases; choice of bases

When the cycle was conceived, it was natural to think that information is inherited from inner constituents to immediately higher ones. Some evidence supports this. But non-local bases can sometimes have an effect on the shape of their remote derivatives. A related phenomenon involves morphologically complex forms with the structure [a [b c]] inheriting their phonological properties

from [ab] rather than [bc]; and variants of this. We integrate these cases into the analysis of pseudo-cyclic and cyclic effects discussed to this point.

Readings:

- a. Data for non-local bases: Cohn and McCarthy 1994
- b. Bracketing paradoxes: Pesetsky 1985
- c. Other choice-of-base phenomena: Kager 1999; Bat-El 2002.

(4/22) The sixth: base priority in anti-homophony effects.

Antihomophony constraints insure that members of the same inflectional paradigm are phonologically distinct. To avoid homophony, phonotactics or exponence conditions are violated: phonological processes are blocked, or different affixes are used from the expected ones. In this session we ask: which member of a potentially homophonous pair is modified in order to achieve distinctness; which member is allowed to surface unmodified? We find evidence reminiscent of what has been called 'base priority' in work on the cycle and observe we can analyze this in the expanded view of the cycle that has emerged.

Readings:

- a. Background on antihomophony: Crosswhite 1999, Kenstowicz 2005
- b. Data on base-priority in antihomophony: Löfstedt 2010, Truckenbrodt & Butska 2005

References

- Albright, Adam. 2005. The morphological basis of paradigm leveling. *Paradigms in Phonological Theory*, ed. L. Downing, T.A.Hall and R.Raffelsiefen, pp. 17-43. OUP
- Bat-El Outi 2002 True Truncation in colloquial Hebrew imperatives, *Language*, VOLUME 78, NUMBER 4, p. 651ff
- Benua, Laura. 1997. *Transderivational identity: Phonological relations between words*. Ph.D. Dissertation. Amherst, MA:U. Mass. Available at <http://roa.rutgers.edu/view.php3?id=271>
- Bermúdez-Otero, Ricardo 2010 Cyclicity, in Marc van Ostendorp, Colin Ewen, Elizabeth Hume and Keren Rice (eds.) *The Blackwell Companion to Phonology*, Malden MA: Wiley-Blackwell
- Bonet, Eulàlia & Francesc Torres-Tamarit. 2009. Allomorphy in pre-clitic imperatives in Formenteran Catalan, to appear in *Proceedings of LSRL*.
- Borowsky, Toni and Mark Harvey 1997 Vowel-Length in Warray and Weight Identity, *Phonology*, Vol. 14, No. 2 pp. 161-175
- Brame, M. 1974. The cycle in phonology: stress in Palestinian, Maltese and Spanish. *Linguistic Inquiry*, 5.39-60.
- Burzio, Luigi. 1996. Surface constraints vs. underlying representation, in J. Durand and B. Laks (eds.), *Current Trends in Phonology*. Manchester: European Studies Institute, pp. 123-41. (1998)
- Burzio, Luigi. 1998. Multiple correspondence. *Lingua* 104: 79-109.
- Burzio, Luigi. 2005. Sources of paradigm uniformity. *Paradigms in Phonological Theory*, ed. L. Downing, T.A.Hall and R.Raffelsiefen, pp. 65-106. OUP
- Chomsky, Noam, Morris Halle, and Fred Lukoff (1956), "On accent and juncture in English", in M. Halle et al. (eds.), *For Roman Jakobson*, 65-80. The Hague: Mouton.

- Cohn, Abigail & John McCarthy. 1994. Alignment and parallelism in Indonesian Phonology. *Working Papers of the Cornell Phonetics Laboratory*, 12: 53-137 available at <http://roa.rutgers.edu/view.php3?id=570> and at [http://works.bepress.com/john\\_j\\_mccarthy/45/](http://works.bepress.com/john_j_mccarthy/45/)
- Crosswhite, K. 1999. 'Inter-paradigmatic homophony avoidance in two dialects of Slavic', in M. Gordon (ed.), *UCLA Working Papers in Linguistics 1*, pp. 48-67.
- Kager René. 1999. Surface opacity of metrical structure in Optimality Theory. in B. Hermans and M. van Oostendorp, eds. *The Derivational Residue in Phonology*. Amsterdam: John Benjamins, 207-245. Available at <http://www.let.uu.nl/~Rene.Kager/personal/Papers/opacity.pdf>
- Kenstowicz, Michael 1995 Cyclic vs. Non-Cyclic Constraint Evaluation, *Phonology*, Vol. 12, No. 3 , pp. 397-436
- Kenstowicz, Michael. 1997. Base identity and uniform exponence: alternatives to cyclicity. In J. Durand & B. Laks, eds., *Current Trends in Phonology: Models and Methods*. Salford: University of Salford, 363-394, available at <http://roa.rutgers.edu/files/103-0000/roa-103-kenstowicz-3.pdf>
- Kenstowicz, Michael. 2005. Paradigmatic Uniformity and Contrast, in L.Downing, T.A.Hall and R.Raffelsiefen (eds.) *Paradigms in Phonological Theory*, OUP. Available at <http://web.mit.edu/linguistics/people/faculty/kenstowicz/publications.html>
- Kiparsky, Paul. 1982. From cyclic phonology to lexical phonology, in Harry van der Hulst and Noval Smith (eds.), *The Structure of Phonological Representations*, part I. Dordrecht: Foris, pp. 131-75.
- Löfstedt, Ingvar 2010 *Phonetic Effects in Swedish Phonology: Allomorphy and Paradigms*, UCLA PhD thesis
- McCarthy, John. 2005. Optimal Paradigms, in L.Downing, T.A.Hall and R.Raffelsiefen (eds.) *Paradigms in Phonological Theory*, OUP. Available at [http://works.bepress.com/john\\_j\\_mccarthy/48/](http://works.bepress.com/john_j_mccarthy/48/)
- McCarthy, John and Alan Prince. 1995. Faithfulness and reduplicative identity. In Jill N. Beckman, Laura Walsh Dickey and Suzanne Urbanczyk (eds.) *Papers in Optimality Theory*. University of Massachusetts Occasional Papers, 18, p. 249-384. GLSA, UMass Amherst. Available at [http://works.bepress.com/john\\_j\\_mccarthy/44/](http://works.bepress.com/john_j_mccarthy/44/)
- Pesetsky, D. 1985. "Morphology and logical form." *Linguistic Inquiry* 16:193-246.
- Raffelsiefen, Renate. 2004. Absolute ill-formedness and other morphophonological effects. *Phonology* 21:91-142.
- Steriade, Donca. 1999. Lexical conservatism in French adjectival liaison, in B. Bullock, M. Authier, and L. Reed (eds.), *Proceedings of LSRL 25*. Benjamins, pp. 243-71.
- Steriade, Donca. 2008. A pseudo-cyclic effect in Romanian morphophonology in A. Bachrach and A.Nevins (eds.) *Inflectional Identity*, pp. 313-361, MIT Press
- Steriade, Donca 2013 The cycle without containment: the Latin perfect, to appear in *Language*.
- Strycharczuk, Patrycja and Ellen Simon 2013 Obstruent voicing before sonorants. The case of West-Flemish, to appear in *NLLT*.
- Trommer, Jochen 2013 Stress Uniformity in Albanian: morphological arguments for cyclicity, to appear in *LI*.
- Truckenbrodt, Hubert and Luba Butska 2003 Ukrainian nominal inflection and conditions on asymmetric OO faithfulness, ms. available at <http://www2.sfs.uni-tuebingen.de/~hubert/Home/papers/Ukrainian.pdf>
- Wolf, Matthew. 2008. *Optimal Interleaving: Serial Phonology-Morphology Interaction in a Constraint-Based Model*. PhD dissertation. University of Massachusetts Amherst. Available at <http://roa.rutgers.edu/view.php3?id=1436>