

INTERMODULAR ARGUMENTATION

- (1) purpose
 - a. to call attention to the intermodular potential of the interactionist architecture that multiple spell-out and derivation by phase (Epstein et al. 1998, Uriagereka 1999, Chomsky 2000, 2001 *et seq.*) have introduced.
 - b. in contrast to the Government & Binding paradigm where the completed morpho-syntactic derivation was merely dumped into PF (and LF) with a "good bye and don't come back", Phase Theory establishes a two-way pipe between the concatenative (morpho-syntax) and the interpretational devices (phonology/PF, semantics/LF) that did not exist in earlier versions of the inverted T-/Y-architecture.
 - c. ==> actors on both ends are not free anymore to do what they want: their theories and analyses may make predictions on the other end.
[Note that this does not make any claim as to whether phonology has any bearing on syntax (phonology-free syntax): the two-way argumentation is possible because the mechanisms involved in the shipping back and forth of pieces must be the same. So whatever is true on one side of the pipe must also be true on the other side, irrespectively of the direction in which pieces travel.]
 - d. **intermodular argumentation** provides stronger evidence than what can be produced by modular-internal reasoning: it offers the maximal degree of independent assessment that linguists can expect without leaving their discipline.
 - e. a syntactic referee for competing phonological theories
 - 4 intermodular argumentations
 1. selective spell-out vs. spell-out of every node
==> syntactic refereeing: selective spell-out
 2. within selective spell-out, what exactly is sent to interpretation when interpretation is triggered?
the mother or the sister of the triggering morpheme?
==> syntactic refereeing: the sister (phase edge, spell out your sister!)
 3. interactionist vs. non-interactionist architecture
==> syntactic refereeing: spell-out is interactionist (successive shipping of small pieces)
 4. presence vs. absence of "freezing" no look-back (Phase Impenetrability PIC)
==> syntactic refereeing: the PIC must also be active in phonology
 - f. this talk is based on Scheer (forth),
pieces of which are Scheer (2008, 2009a,b, 2010)

1. Introduction

- (2) phase theory should bother phonologists, but it doesn't
 - a. the minimalist focus on the interface has changed the landscape radically: the revival of cyclic spell-out and Phase Impenetrability (i.e. phase theory) establishes a pipe between syntax and phonology that did not exist in GB.
 - b. People on both ends of the pipe are not free anymore to do what they want: their theories and analyses may make predictions on the other end.
 - c. The intermodular potential of phase theory has not received much attention thus far. Syntacticians use Phase Impenetrability for syntax-internal purposes, and phase theory evolves at high speed without taking into account what happens when the parcel is dumped to phonology.
 - d. Phonologists have barely acknowledged the existence of phase theory, let alone taken into account the predictions that it makes on the phonological side.
 - e. Certainly an important factor here is the misty relationship (if any) that OT has with modularity, which is constantly violated (mapping done in the phonology, interface constraints, constraints that combine phonological and morphological instructions etc.). Phase theory (and indeed the generative architecture of grammar), however, make no sense in absence of sharp modular contours.
- (3) convergence
 - a. I would like to draw attention to the fact that the mechanisms which have been proposed on the morpho-syntactic side in order to manage the procedural communication with phonology, and their phonological equivalents are actually converging to a large extent – but this is not really perceived because they run under different labels.
 - b. there is no alternative anyway if there is any cyclic communication between morpho-syntactic structure and phonological interpretation at all:
==> the spell-out mechanism must be the same on both sides: the pieces that travel are the same.
 - c. convergence is a criterion for selecting among competing solutions in phonology.

2. Selective spell-out

- (4) inside-out interpretation
 - a. introduced by Chomsky et al. (1956:75).
Known as the Transformational Cycle, the Phonological Cycle, cyclic spell-out, cyclic interpretation.
 - b. is shared by all generative theories of phonological interpretation.
[except a body of anti-cyclicity literature in OT, e.g. Kager 1999:277]

- (5) spell-out in SPE
- all morphemes are cycles
[except for two successive items of the same major category (A,N,V):
theatricality is [[[theatr]_N ic + al]_A i + ty]_N (Chomsky & Halle 1968:88f)]
 - all cycles are interpreted (by so-called cyclic rules)
 - [[[A] B] C]
cycle 1: interpretation of A
cycle 2: interpretation of AB
cycle 3: interpretation of ABC

2.1. Lexical Phonology

- (6) all cycles are interpreted – but not by the same computational system
- English affix classes
e.g. Kaisse & Shaw (1985), Giegerich (1999), McMahon (2000)
 - example: stress assignment
párent, parént-al vs. párent-hood

- (7) *párent* - *parént-al* vs. *párent-hood* in Lexical Phonology

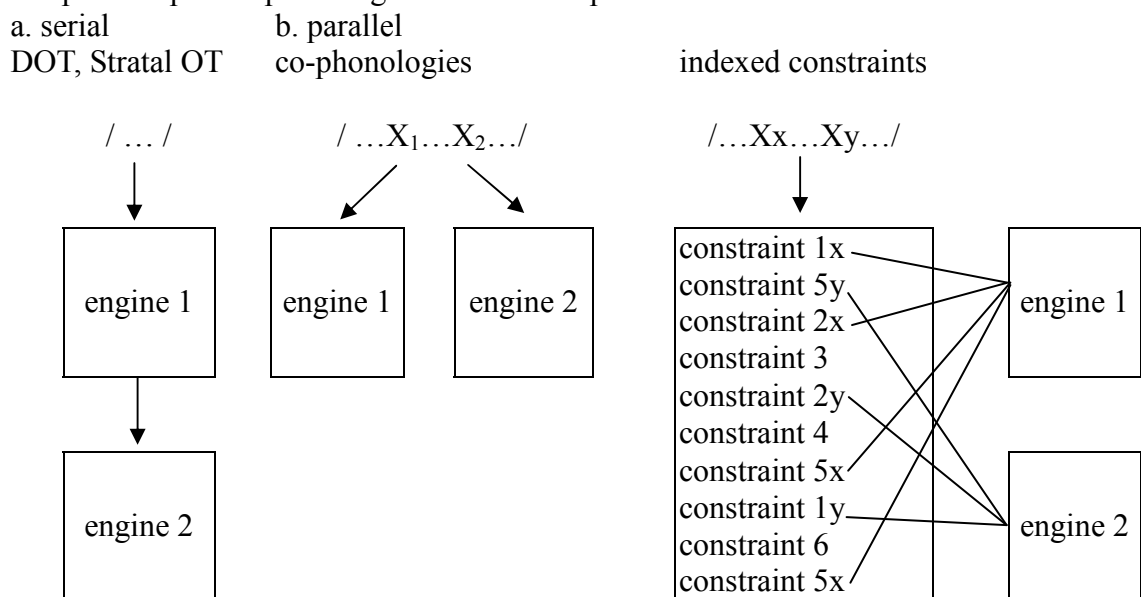
		parent	parént-al	párent-hood
lexicon		parent	parent	parent
level 1	concatenation	—	parent-al	—
	stress assignment	párent	parént-al	párent
level 2	concatenation	—	—	párent-hood
	rule application	—	—	—

- (8) stratal architecture
- the lexicon contains underived roots
 - class 1 affixes are concatenated at stratum 1 (level 1)
 - class 2 affixes join in at stratum 2 (level 2)
 - after the concatenation is complete at each stratum, a stratum-specific phonology applies to the string as it stands.
 - rules are assigned to specific strata: in our example, the stress-assigning rule is a level 1 rule, which means that it is active at level 1, but absent from level 2.
 - the derivation is strictly serial: given the order lexicon → level 1 → level 2, strings that are present at some level must run through all subsequent levels on their way to the surface. This means that they experience the computation that these levels.
 - there are two distinct and morpheme-specific computational systems:
 - level 1 phonology
 - level 2 phonology
 ==> underapplication (here at level 2) is achieved by the contrast of these two systems.

2.2. Modern versions of morpheme-specific multiple mini-phonologies

- (9) OT-based implementations
- serial versions: continuation of the stratal architecture
 - Stratal OT (Kiparsky 2000, Bermúdez-Otero forth)
 - DOT (Rubach 1997 et passim)
 - parallel versions:
 - co-phonologies (e.g. Itô & Mester 1995, Inkelas 1998, Anttila 2002)
 - indexed constraints. Prince & Smolensky (1993), Itô & Mester (1999), Pater (2000,forth).
 - all cycles are interpreted by some phonological computational system.
==> no selective spell-out

(10) morpheme-specific phonologies: different implementations in OT



2.3. Halle & Vergnaud (1987)

- (11) Selective Spell-out
- there is only one computational system.
 - only some nodes of the morpho-syntactic tree trigger spell-out
 - whether or not a node dominates an interpretational unit is decided by its head: affixes are lexically specified as interpretation-triggering (cyclic affixes in Halle & Vergnaud's terms) or interpretation-neutral (non-cyclic). This property is then inherited by the node that they project, and the spell-out mechanism does or does not send off nodes to PF/LF according to this property.

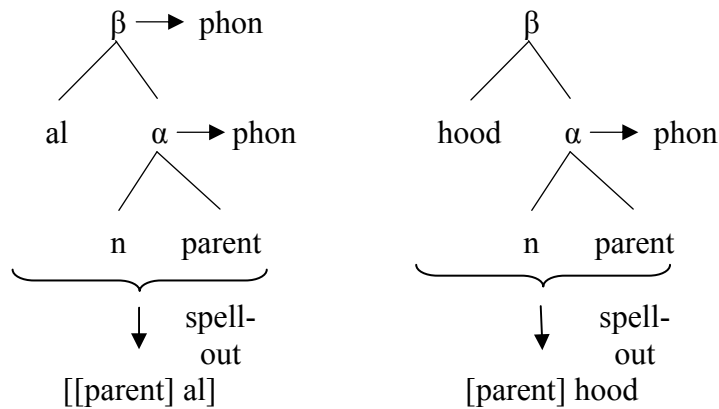
(12) Halle & Vergnaud (1987): analysis of affix class-based stress

class 1 (-al): interpretation-triggering

class 2 (-hood): interpretation-neutral

a. parént-al

b. párent-hood



(13) analysis of level 1 rules (rule-blocking pattern)

a. all roots are interpretational units by themselves

b. class 1 (-al), rather than class 2 (-hood) affixes, are interpretation-triggering

b. input to phonology:

[[parent] al] - the stress rule reapplies to the whole word: regular penultimate stress

[parent] hood - the stress rule applies only to the root

c. underapplication is achieved by selective spell-out: class 2 affixes do not trigger interpretation, which prevents the stress rule from reapplying.

2.4. Kaye (1995)

(14) Selective Spell-out, but with different secondary choices

a. Kaye (1992,1995) adopts selective spell-out

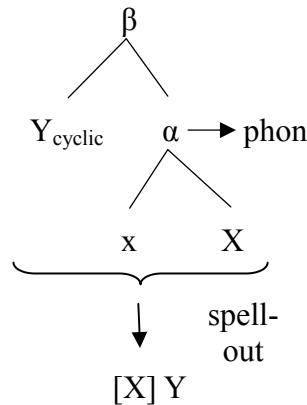
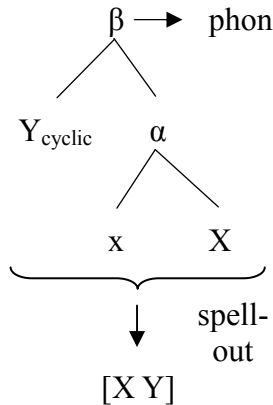
b. like Halle & Vergnaud, Kaye rejects morpheme-specific phonologies

(15) differences between Halle & Vergnaud (1987) and Kaye (1995)

	Halle & Vergnaud	Kaye
a. the root is an interpretational unit	yes	no
b. the word is an interpretational unit	no	yes
c. interpretation-triggering affixes trigger the spell-out of	their own node	their sister
d. type of English affix-classes that triggers interpretation	class 1	class 2
e. underapplication is achieved by	cycles	cycles and no look-back

(16) interpretation-triggering affixes: what exactly is spelled out

- a. Halle & Vergnaud (1987): cyclic affixes trigger the spell-out of their own constituent β
- b. Kaye (1995): cyclic affixes trigger the spell-out of their sister α



(17) given that

X = interpretation-neutral affix Y = interpretation-triggering affix

	Halle & Vergnaud	Kaye	
a. root-X	$[root] X$	$[root X]$	different
b. root-Y	$[[root] Y]$	$[[root] Y]$	identical

(18) analysis of level 1 rules (rule-blocking pattern)

- line of attack: the observation that morpho-syntactic boundaries may or may not be visible for phonological processes.
- [parent al] boundary invisible

[[parent] hood] boundary visible
- [parent al]
penultimate stress assigned on the only cycle
- [[parent] hood]

inner cycle: penultimate stress assigned

outer cycle: no reapplication of the stress rule because of "freezing" no look-back.
- "freezing" no look-back
strings which have already been subject to interpretation cannot be modified by further computation on later cycles.
- \implies underapplication is achieved by freezing no look-back.

2.5. Summary

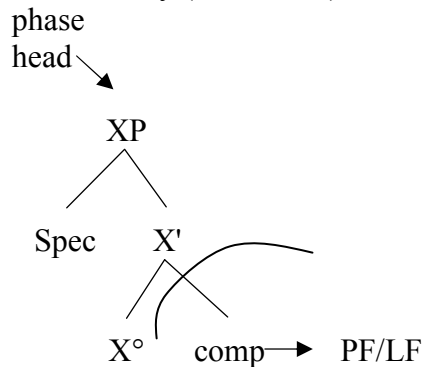
- (19) morpheme-specific mini-phonologies vs. selective spell-out
- empirical coverage: to be looked at.
 - intermodular argumentation I
derivation by Phase is based on selective spell-out
[Uriagereka 1999, Chomsky 2000,2001 etc.]
==> if derivation by phase, i.e. minimalist syntax, is on the right track, selective spell-out must be correct (and morpheme-specific mini-grammars wrong).
 - two different candidates that practise selective spell-out:
 - Halle & Vergnaud (1987)
 - Kaye (1995)

3. The phase edge: spell out your sister!

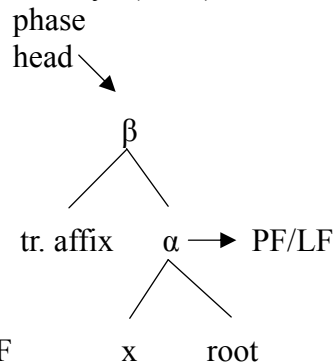
- (20) the phase edge in syntax
current phase theory holds that in case XP is a phase head, the spell-out of XP only triggers the interpretation of the complement; the head and Spec,XP – the edge of the phase – are spelt out only at the next higher phase (Chomsky 2000:108).

- (21) Kaye's version of interpretation-triggering affixes and Chomsky's phase edge

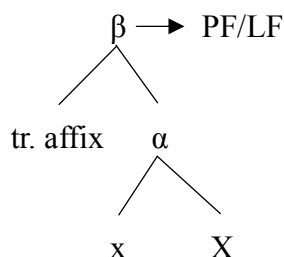
a. Chomsky (2000,2001)



b. Kaye (1995)



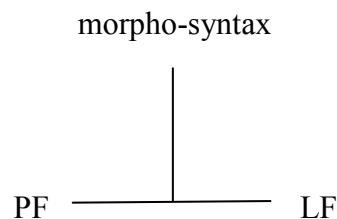
- (22) compare with Halle & Vergnaud:
spell-out the node that you project



- (23) intermodular argumentation II
- both Halle & Vergnaud and Kaye practise selective spell-out, but only the latter spells out like syntactic spell-out: the sister of the phase head.
 - of course we are talking about the same spell-out: it cannot be like this on the syntactic, but like that on the phonological side.
==> only Kaye passes both syntactic filters.

4. Interactionism

- (24) the generative architecture of grammar:
the inverted T model



- (25) the inverted T
- introduced by Chomsky (1965:15ff)
 - modular
 - syntactico-centric:
 - one concatenative unit (where pieces are glued together): morpho-syntax
 - two interpretative modules (where ready-glued strings are interpreted)
- (26) SPE: phonology interprets a bracketed string
- a proviso assorted to the inverted T in SPE
all concatenation before all interpretation
 - consequence: inside-out interpretation does not take place "online", but in two steps:
 - the spell-out mechanism transforms morpho-syntactic structure into a linear string all the way down (or up) the tree: the entire sentence is transformed before anything is shipped to phonology.
 - phonology receives a full sentence in form of a bracketed string:
theatricality is [[[theatr]_N ic + al]_A i + ty]_N
Brackets have two functions:
 - they are the buffer for cyclic structure: inside-out information is restored
 - they are labelled and hence give direct access to morpho-synt. information
 - brackets violate modularity, in both of their functions:
 - phonology cannot parse diacritic indicators of the derivational history
 - phonology does not know what a noun etc. is.
 - but nobody cared until Lexical Phonology came up with a solution to this problem – which provoked a reaction in defence of the modularity-violating "all concatenation before all interpretation".

- (27) Lexical Phonology
[Pesetsky 1979, Kiparsky 1982 etc.]
- a. accepts the inverted T
 - b. but dispenses with the proviso
"all concatenation before all interpretation"
 - c. proposes an **interactionist** architecture where concatenation and interpretation are interspersed:
 1. take a root: A
 2. interpret the root: $\varphi(A)$
 3. concatenate an affix: A+B
 4. interpret the result: $\varphi(AB)$
 5. concatenate another affix: AB+C
 6. interpret the result: $\varphi(ABC)$and so on
- (28) Halle & Vergnaud (1987)
- a. are anti-interactionist: the reaction of generative orthodoxy on Lexical Phonology
 - b. propose a non-interactionist version of Lexical Phonology
 - c. in order to restore the proviso
"all concatenation before all interpretation"
- (29) interactionism reconciles inside-out interpretation and modularity
- a. interactionism does away with brackets
 - b. it is the only way to make inside-out interpretation compatible with modularity
 - c. surprisingly enough, this has played no role at all in the late-80s discussion around (anti-)interactionism. Modularity was never used as an argument by the defenders of interactionism.
- (30) when generative linguistics became interactionist
- a. Uriagareka (1999) paved the way
 - b. the spine of Chomsky's (2000 et passim) derivation by phase is interactionism.
 - c. but the syntactic literature does not mention the phonological model.
 - d. modular argumentation III
all in all, that's good news:
 1. views on how procedural communication between morpho-syntax and phonology works converge. Grammar is interactionist.
 2. inside-out interpretation is made compatible with modularity.

5. No look-back in generative linguistics

5.1. Strict Cycle Condition, Chomsky's (1973) and Kiparsky's (1982) version

- (31) There is quite some confusion in the literature when it comes to the discussion of no look-back devices. The most deeply rooted misconception is due to Kiparsky (1982), who has scrambled derived environment effects with Chomsky's original requirement to use newly introduced material – while presenting his significantly modified package as a version of Chomsky's Strict Cyclicity.

(32) Chomsky (1973)

- a. The ancestor of all no look-back devices is Chomsky's (1973) Strict Cycle Condition, which prevents rules from applying if they do not use material that has been introduced on the current cycle.
- b. Strict Cycle Condition (SCC)
"No rule can apply to a domain dominated by a cyclic node A in such a way as to affect solely a proper subdomain of A dominated by a node B which is also a cyclic node." Chomsky (1973:243)
- c. the effect is that rules are blocked whose structural description is met by a string which is made exclusively of material that belongs to a previous cycle. That is, given $[[AB]_i C]_j$, a rule that is triggered by AB can apply at cycle i, but not at cycle j.
Or, in other words, multiple application of rules is prohibited.
- d. Kean (1974) and Mascaró (1976) have applied Chomsky's SCC to phonology. Mascaró's (1976:7) formulation talks about the "proper" application of a rule, which means that "improper" applications are blocked: "for a cyclic rule to apply properly in any given cycle j, it must make specific use of information proper to (i.e. introduced by virtue of) cycle j."

(33) Kiparsky's scrambling with derived environment effects

- a. A derived environment effect is a phenomenon whereby a rule only applies to morphologically complex strings.¹
- b. Paul Kiparsky has been on the track of this pattern since Kiparsky (1968-1973).
- c. Chomsky's (and Kean's and Mascaró's) condition on the applicability of rules is entirely irrelevant for derived environment effects: it will not prevent rules from applying to monomorphemic strings since these have necessarily been introduced on the latest (the only) cycle.
Thus Trisyllabic Shortening ($s[ej]ne - s[æ]n-ity$), a famous example, will happily apply to $n[aj]tingale$ and $[aj]vory$ under Chomsky's SCC.
- d. nonetheless, Kiparsky (1982) introduces his version of the SCC as if it were just a restatement of Mascaró's.
"With some simplification, his [Mascaró's] proposal was:

(47) Strict Cycle Condition (SSC):

- a. Cyclic rules apply only to derived representations.
- b. Def.: A representation ϕ is derived w.r.t. rule R in cycle j iff ϕ meets the structural analysis of R by virtue of a combination of morphemes introduced in cycle j or the application of a phonological rule in cycle j."
Kiparsky (1982:153f)
- e. Kiparsky's attempt to kill two birds ("use new material!" and derived environment effects) with one stone (his scrambled SCC) was considered an important achievement in the 80s, but has turned out to lead into a dead end: ten years later, Kiparsky (1993) himself declares the bankruptcy of his version of the SCC.

¹ Or to monomorphemic strings which however are the result of the application of a previous rule (phonologically derived environments).

(34) Halle (1978)

- a. another (anecdotal) aspect of this dossier is that the combination of Chomsky's SCC with derived environment effects was actually not done by Kiparsky (1982), which is always given credit in the literature, but by Halle (1978) in an article that nobody quotes.²
- b. Unlike Kiparsky, Halle (1978:131) is explicit on the fact that "the version of the constraint on cyclic rule application that I propose below is a combination of certain suggestions made by Kiparsky (1973:60), with others due to Mascaró (1976:9)."
- c. Halle's formulation
"A cyclic rule R applies properly on cycle j only if either a) or b) is satisfied:
a) R makes specific use of information, part of which is available on a prior pass through the cyclic rules, and part of which becomes first available on cycle j. [...]
b) R makes specific use of information assigned on cycle j by a rule applying before R."
Halle (1978:131)
- d. Halle's version of the SCC does exactly the same labour as Kiparsky's. The critical modification is that instead of imposing only new material to be used by rules, Halle requires that new *and* old material be accessed.

5.2. A new idea: modification-inhibiting (freezing) no look-back

(35) early expressions I on stress: the Free Element Condition (FEC)

- a. Free Element Condition (FEC) (Prince 1985)
The FEC restricts rules that erect foot structure to strings that do not possess any such structure yet.
- b. literature
 - Steriade (1988) on stress in constructions with an enclitic element in Latin and Greek (also Halle 1990, Halle & Kenstowicz 1991)
 - McCarthy (1980) (which is about stress and syncope in Damascene Arabic)
 - Poser (1986, 1989) (on stress in Diyari, South Australian)
- c. the FEC is only competent for stress: no general ambition
previously assigned structure is immune against further modification on later cycles. But this is only true for stress and hence metrical structure.

² I am aware of two exceptions: Rubach (1981:18ff) and Szpyra (1989:17). Halle (1978) is absent from Kiparsky (1982b); it is mentioned in the reference section of Kiparsky (1982a), but does not appear in the text (or the notes).

- (36) early expressions II on syllable structure: Structure Preservation
- a. Structure Preservation is about the erection of syllable structure over strings that are lexically unsyllabified. The idea is the same as with the FEC: "old" syllable structure that was built on a previous cycle cannot be erased or modified by computation on later cycles.
 - b. literature
 - Steriade (1982:84ff, 1984, 1988:205, Greek and Latin)
 - van Oostendorp (1994, Dutch)
 - J. Harris (1993, Spanish)
 - c. no general ambition either:
as for stress, modification-inhibiting no look-back in these analyses is taken to be specific to a particular process, syllabification, and only concerns autosegmental structure that is absent from the lexicon.
- (37) Kaye (1992,1995): modification-inhibiting no look-back generalized
- a. Kaye makes freezing no look-back a general condition on phonological computation.
 - b. that is, previously interpreted strings cannot be modified by computation on subsequent cycles.
- (38) Chomsky's Phase Impenetrability Condition (PIC)
- a. Chomsky's (2000, 2001 et passim) Phase Impenetrability does exactly the same thing: previously interpreted phases are "frozen in place" (Chomsky 2001:6)
 - b. Chomsky's PIC is the instrument which frees active memory from the unnecessary burden of old strings. This extra-linguistic motivation is reflected in the quote below, which is also explicit on the fact that the economy effect is supposed to apply to phonological as much as to syntactic memory.
 - c. "The whole phase is 'handed over' to the phonological component. The deleted features then disappear from the narrow syntax. [...Uninterpretable features] have been assigned values (checked); these are removed from the narrow syntax as the syntactic object is transferred to the phonology. The valued uninterpretable features can be detected with only limited inspection of the derivation if earlier stages of the cycle can be 'forgotten' – in phase terms, if earlier phases need not be inspected. **The computational burden is further reduced if the phonological component too can 'forget' earlier stages of derivation.** These results follow from the Phase-Impenetrability Condition (PIC) (MI [Minimalist Inquiries, i.e. Chomsky 2000], (21)), for strong phase HP with head H,

(7) The domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations."
Chomsky (2001:12f, emphasis mine)
 - d. "If such ideas prove correct, we have a further sharpening of the choices made by FL [faculty of language] within the range of design optimization: the selected conditions reduce computational burden for narrow syntax and phonology."
Chomsky (2001:15)

(39) intermodular argumentation IV

a. strong version:

derivation by phase is motivated by the minimalist interest for the extra-linguistic conditions of grammar: the derivation of a whole sentence is supposed to be too demanding for active memory (workbench memory). Piecemeal derivation cuts down the demand – but only if previously computed pieces can "be forgotten".

==> if active memory is a concern, it is a concern for all linguistic computation, not just morpho-syntactic computation. Hence phonological derivation must also be piecemeal, and it must also "forget" previously computed pieces. Chomsky (see the boldfaced part of the quote under (38)c) is explicit on this.

==> phonological theories (of the interface) that do not implement any version of the PIC do not qualify.

b. weak version

in case phonological theories that do and do not implement some version of the PIC compete, the PIC-bearing theory affords a convergence with syntactic theory. Not taking advantage of this convergence is missing a generalisation regarding the spell-out mechanism.

6. Conclusion

(40) Phase Theory is a good thing

a. independently of its syntax-internal merits

b. it establishes a bridge that is by and large ignored by syntacticians and phonologists, who are more and more estranged by the Continental Drift of their respective continents.

c. Phase Theory can reduce the drift, and force each party to shape its own theory according to what happens in the fauna and flora that is exotic to them.

References

Items followed by WEB can be downloaded at www.unice.fr/dsl/tobias.htm.

Anttila, Arto 2002. Morphologically conditioned phonological alternations. *Natural Language and Linguistic Theory* 20: 1-42.

Bermúdez-Otero, Ricardo forth. *Stratal Optimality Theory*. Oxford: Oxford University Press.

Chomsky, Noam 1965. *Aspects of the Theory of Syntax*. Cambridge, Mass.: MIT Press.

Chomsky, Noam 1973. Conditions on Transformations. A Festschrift for Morris Halle, edited by Stephen Anderson & Paul Kiparsky, 232-286. New York: Holt, Rinehart & Winston.

Chomsky, Noam 2000. Minimalist inquiries: the framework. Step by Step. Essays on Minimalist Syntax in Honor of Howard Lasnik, edited by Roger Martin, David Michaels & Juan Uriagereka, 89-155. Cambridge, Mass.: MIT Press.

Chomsky, Noam 2001. Derivation by Phase. Ken Hale: A Life in Language, edited by Michael Kenstowicz, 1-52. Cambridge, Mass.: MIT Press.

Chomsky, Noam & Morris Halle 1968. *The Sound Pattern of English*. Cambridge, Mass.: MIT Press.

Chomsky, Noam, Morris Halle & Fred Lukoff 1956. On Accent and Juncture in English. For Roman Jakobson. *Essays on the occasion of his sixtieth birthday*, edited by Morris

- Halle, Horace Lunt, Hugh McLean & Cornelis van Schooneveld, 65-80. The Hague: Mouton.
- Epstein, Samuel, E.M. Groat, R. Kawashima & H. Kitahara 1998. *A Derivational Approach to Syntactic Relations*. Oxford: OUP.
- Giegerich, Heinz 1999. *Lexical Strata in English*. Cambridge: Cambridge University Press.
- Halle, Morris 1978. Formal vs. functional considerations in phonology. *Studies in the Linguistic Sciences* 8: 123-134. Reprinted in Brogyányi, Bela (ed.) 1979. *Studies in diachronic, synchronic and typological linguistics: Festschrift for O. Szemerényi*, 325-341. Amsterdam: Benjamins.
- Halle, Morris 1990. Respecting metrical structure. *Natural Language and Linguistic Theory* 8: 149-176.
- Halle, Morris & Michael Kenstowicz 1991. The Free Element Condition and cyclic versus non-cyclic stress. *Linguistic Inquiry* 22: 457-501.
- Halle, Morris & Jean-Roger Vergnaud 1987. *An Essay on Stress*. Cambridge, Mass.: MIT Press.
- Harris, James 1993. Integrity of prosodic constituents and the domain of syllabification in Spanish and Catalan. The view from Building 20. *Essays in Linguistics in Honor of Sylvain Bromberger*, edited by Kenneth Hale & Samuel Keyser, 177-193. Cambridge, Mass.: MIT Press.
- Inkelas, Sharon 1998. The theoretical status of morphologically conditioned phonology: a case study of dominance effects. *Yearbook of Morphology* 1997: 121-155.
- Itô, Junko & Armin Mester 1995. Japanese Phonology. *The Handbook of Phonological Theory*, edited by John Goldsmith, 816-838. Oxford: Blackwell.
- Itô, Junko & Armin Mester 1999. The phonological lexicon. *The Handbook of Japanese Linguistics*, edited by Natsuko Tsujimura, 62-100. Oxford: Blackwell.
- Kager, René 1999. *Optimality Theory*. Cambridge: Cambridge University Press.
- Kaisse, Ellen & Patricia Shaw 1985. On the theory of Lexical Phonology. *Phonology Yearbook* 2: 1-30.
- Kaye, Jonathan 1992. On the interaction of theories of Lexical Phonology and theories of phonological phenomena. *Phonologica* 1988, edited by Uli Dressler, Hans Luschützky, Oskar Pfeiffer & John Rennison, 141-155. Cambridge: Cambridge University Press. WEB.
- Kaye, Jonathan 1995. Derivations and Interfaces. *Frontiers of Phonology*, edited by Jacques Durand & Francis Katamba, 289-332. London & New York: Longman. Also in SOAS Working Papers in Linguistics and Phonetics 3, 1993, 90-126. WEB.
- Kean, Mary-Louise 1974. The Strict Cycle in Phonology. *Linguistic Inquiry* 5: 179-203.
- Kiparsky, Paul 1968-1973. How abstract is phonology? Manuscript circulated since 1968 and published 1973 in: *Three Dimensions of Linguistic Theory*, edited by Osamu Fujimura, 5-56. Tokyo: TEC.
- Kiparsky, Paul 1982. From Cyclic Phonology to Lexical Phonology. *The structure of phonological representations I*, edited by Harry van der Hulst & Norval Smith, 131-175. Dordrecht: Foris. WEB.
- Kiparsky, Paul 1993. Blocking in nonderived environments. *Studies in Lexical Phonology*, edited by Sharon Hargus & Ellen Kaisse, 277-313. San Diego: Academic Press.
- Kiparsky, Paul 2000. Opacity and cyclicity. *The Linguistic Review* 17: 351-365.
- Mascaró, Joan 1976. *Catalan Phonology and the Phonological Cycle*. Ph.D. dissertation.
- McCarthy, John 1980. A note on the accentuation of Damascene Arabic. *Studies in the Linguistic Sciences* 10: 77-98.
- McMahon, April 2000. *Lexical Phonology and the history of English*. Cambridge: Cambridge University Press.

- Oostendorp, Marc van 1994. Affixation and integrity of syllable structure in Dutch. *Linguistics in the Netherlands 1994*, edited by Reineke Bok-Bennema & Crit Cremers, 151-162. Amsterdam: Benjamins.
- Pater, Joe 2000. Nonuniformity in English stress: the role of ranked and lexically specific constraints. *Phonology* 17: 237-274.
- Pater, Joe 2009. Morpheme-specific phonology: constraint indexation and inconsistency resolution. *Phonological argumentation: essays on evidence and motivation*, edited by Steve Parker, 123-154. London: Equinox.
- Pesetsky, David 1979. *Russian Morphology and Lexical Theory*. Ms, MIT. Available at <http://web.mit.edu/linguistics/www/pesetsky/russmorph.pdf>.
- Poser, William 1986. Diyari stress, metrical structure assignment and the nature of metrical representation. *Proceedings of the West Coast Conference on Formal Linguistics* 5: 178-191.
- Poser, William 1989. The metrical foot in Diyari. *Phonology* 6: 117-148.
- Prince, Alan 1985. Improving Tree Theory. *Proceedings of the 11th Annual Meeting of the Berkeley Linguistics Society*, edited by M. Niepokuj, M. van Clay, V. Nikiforidou & D. Feder, 471-490. Berkeley: University of California, Berkeley.
- Prince, Alan & Paul Smolensky 1993. *Optimality Theory. Constraint Interaction in Generative Grammar*. Ms, Rutgers University, University of Colorado (ROA version August 2002).
- Rubach, Jerzy 1997. Extrasyllabic consonants in Polish: Derivational Optimality Theory. *Derivations and Constraints in Phonology*, edited by Iggy Roca, 551-581. Oxford: Clarendon.
- Scheer, Tobias 2008. Spell out your Sister! *Proceedings of the 27th West Coast Conference on Formal Linguistics*, edited by Natasha Abner & Jason Bishop, 379-387. Somerville: Cascadilla. WEB.
- Scheer, Tobias 2009a. Intermodular Argumentation and the Word-Spell-Out-Mystery. *Explorations of Phase Theory: Interpretation at the Interfaces*, edited by Kleanthes Grohmann, 23-65. Berlin: Mouton de Gruyter. WEB.
- Scheer, Tobias 2009b. Representational and procedural sandhi killers: diagnostics, distribution, behaviour. *Czech in Formal Grammar*, edited by Mojmír Dočekal & Markéta Ziková, 155-174. München: Lincom. WEB.
- Scheer, Tobias 2010. Intermodular argumentation: morpheme-specific phonologies are out of business in a phase-based architecture. *The Sound Pattern of Syntax*, edited by Nomi Shir & Lisa Rochman, 333-351. Oxford: OUP.
- Scheer, Tobias forth. *A Guide to Morphosyntax-Phonology Interface Theories. How morpho-syntax talks to phonology: a survey of extra-phonological information in phonology since Trubetzkoy's Grenzsignale*. Berlin: Mouton de Gruyter.
- Steriade, Donca 1982. *Greek Prosodies and the Nature of Syllabification*. Ph.D dissertation, MIT.
- Steriade, Donca 1984. Glides and vowels in Romanian. *Proceedings of the 10th Annual Meeting of the Berkeley Linguistics Society*, edited by C. Brugman & M. Macaulay, 47-64. Berkeley: University of Berkeley.
- Steriade, Donca 1988. Greek Accent: A Case for Preserving Structure. *Linguistic Inquiry* 19: 271-314.
- Szpyra, Jolanta 1989. *The Phonology - Morphology Interface*. London & New York: Routledge.
- Uriagereka, Juan 1999. Multiple spell-out. *Working Minimalism*, edited by Samuel Epstein & Norbert Hornstein, 251-282. Cambridge, Mass.: MIT Press.