Heather Newell heather.newell@mail.mcgill.ca
Tobias Scheer* scheer@unice.fr

38th Poznań Linguistic Meeting
13-16 September 2007
Gniezno

this handout at
http://www.unice.fr/dsl/tobias.htm

PROCEDURAL FIRST

(1) purpose
   a. Interface Dualism
      morpho-syntax has got two channels to talk to phonology:
      1. representationally: SPE-style boundaries #, the Prosodic Hierarchy
      2. procedurally: cyclic spell-out: the Transformational/ Phonological cycle in SPE, derivation by Phase more recently (Chomsky 2001)
   b. given
      - a phonological effect that is controlled by morpho-syntactic information
      - competing procedural and representional solutions
      ==> always choose the former.
      1. procedural analyses allow for a control outside of the phonology since they make predictions on the morpho-syntactic side: they spell out different structures.
         ==> you can then argue about this morpho-syntactic contrast in order to make the analysis stand or fall.
      2. representational communication with phonology is phonological inbreeding.
         It sends off some object into the phonology, but ignores the morpho-syntactic structure.
         ==> you are never able to bring to bear non-phonological arguments in order to make this kind of analysis stand or fall.
      3. ==> the best evidence for or against analyses of interface phenomena is extra-phonological.
   c. illustration: un- vs. in-, bracketing paradoxes.

1. Distribution of procedural and representational management over interface phenomena

(2) an interface phenomenon is a phonological effect that is governed by extra-phonological, i.e. morpho-syntactic information.

* Newell: McGill University, UQAM
Scheer: Laboratoire BCL, Université de Nice - Sophia Antipolis, CNRS ; MSH de Nice, 98 bd E. Herriot, 06200 NICE.

(3) macro-map of interface phenomena

a. intonation (sentence stress): a world of its own

1. procedural treatment is needed for sure:
   At least since Bresnan (1971), there can be no doubt that sentence stress directly depends on syntactic structure. The topic is covered by a rich syntactic literature, including Berman & Szamosi (1972), Cinque (1993), Kahnemuyipour (2004) and Adger (2006).
2. but is intonation phonological at all?
   That is, do we need to know which lexical material a sentence will receive in order to compute its intonational structure?
   Maybe not: intonation and phonology are two distinct and waterproof systems. Wagner (2005), Féry & Ishihara (ms)
3. Ladd (1986,1987) has argued for recursion in intonation. Recursion is unknown in phonology. Hence an argument for intonation lying outside of the phonology.

b. only representational for sure

1. reference to edges
   "final devoicing", "restrictions on word-initial consonant clusters", "right-edge extrasyllabicity" etc.
   SPE: #
   Prosodic Phonology: "beginning of a Prosodic Word"
   OT: Align, Wrap
   ==> interestingly, it appears that these phenomena never rely on online-produced morpho-syntactic structure. Rather, it relies on parameter settings that are valid for the entire language, no matter what the actual morpho-syntactic computation.
2. external sandhi (phonology between words)
   never requires any procedural treatment: iterative application of rules or two-step derivations are unknown.
   Classically, this is reflected by the fact that Lexical Phonology has strata in the Lexicon (i.e. where phonology interacts with morphology), but not in post-lexical phonology, where it interacts with syntax.
   Only representational solutions are used for word-level phonology: #, the Prosodic Hierarchy.

c. stratal effects
   phonological effects produced by affix classes

d. category-sensitive effects
   récord - recórd

(4) summary:
procedural vs. representational intervention in phonology

	procedural	representational
a. intonation (sentence stress)	open question	
b. parameter setting for the whole language (edge phenomena)	—	+
c. extra-phonological information depends on morpho-syntactic computation		
1. stratal effects (affix classes)	?	?
2. external sandhi (phonology between words)	—	+
3. category-sensitivity (récord - recórd)	?	?

2. Typology of stratal phenomena

(5) the story
   a. when looking at the distribution of procedural and representational solutions for stratal phenomena, it appears that almost no representations are needed.
   b. the representational residue is located in a specific area.
   c. stratal phenomena can be made completely procedural if a procedural alternative is found for the residue.

(6) stratal effects are effects due the the existence of affix classes.
   a. English class 1 (stress-shifting) vs. class 2 (stress-neutral) affixes.

class 1		class 2	
in-		un-	
-ity		-ness	
-ic		-less	
-ian		-hood	
-ory		-like	
-ary		-dom	
-ion		-ful	
-ate		-ship	
-al	(adjective-forming)	-ed	(adjectival)
-y	(noun-forming)	-ing	(noun-forming)

   b. stress sensitivity

stem	class 1	class 2
párent	parént-al	párent-hood
válid	valíd-ity	válid-ness
átom	atóm-ic	átom-ise

(7) possible effects of morpho-syntactic structure in phonology
   a. Type A - rule blocking
      a particular morphological division blocks a phonological process.
      [In cyclic terms: the rule applies in the inner, but not in the outer cycle.]
      [Lexical Phonology: level 1 rules]
   b. Type B - rule triggering
      a particular morphological division triggers a phonological process.
      [In cyclic terms: the rule applies in the outer, but not in the inner cycle.]
      [Lexical Phonology: level 2 rules]
   c. Type C - rule modifying (only stress)
      the phonological process is neither blocked nor triggered: it always applies, but to different strings according to morphological divisions.
      [In cyclic terms: the rule applies in all cycles, but the result is different according to their grouping.]

(8) typology of stratal effects

a. Type A - rule blocking
[Lexical Phonology: level 1 rules]
a particular morphological division blocks a phonological process.
In cyclic terms: the rule applies in the inner, but not in the outer cycle.

1. Type A1
the root is modified.
Example: Trisyllabic Shortening

morpheme-internal & class 2	class 1
no shortening [aj,ej]: nightingale, maiden-hood	shortening: s[ej]ne - s[æ]n-ity

2. Type A2
the affix is modified.
Example: English *un-* vs. *in-*

morpheme-internal & class 1	class 2
assimilation: hu[mb]le, i[m-p]ossible	no assimilation: un-predictable

b. Type B - rule triggering
[Lexical Phonology: level 2 rules]
a particular morphological division triggers a phonological process.
In cyclic terms: the rule applies in the outer, but not in the inner cycle.

1. Type B1 (only one affix type)
[maybe reduces to Type B2]
any boundary triggers the effect. The contrast is between underived items and constructions involving an affix.
Example: Finnish t → s / __i

2. Type B2 (two affix types)
only a subset of boundaries (a particular affix class) triggers the effect. The contrast is between underived items plus a certain class of affixes and another class of affixes.
Examples from English:
- nasal cluster simplification

morpheme-internal & class 1	word-final & class 2
[gn]: ignore, sign-ature	[n]: sign, sign-ing
[mn]: amnesia, damn-ation	[n]: damn, damn-ing

c. Type C - rule modifying (only stress)
the phonological process is neither blocked nor triggered: it always applies, but to different strings according to morphological divisions. In cyclic terms: the rule applies in all cycles, but the result is different according to their grouping.
Example: English stress assignment
párent

morpheme-internal & class 2	class 1
párent, párent-hood	parént-al

(9) how stratal effects are treated in different theories
[grey-shaded cells: participation of a representational device]
[PIC is shorthand for Phase Impenetrability]

	Type A	Type B	Type C
a. SPE	# blocks rule	# triggers rule	cyclic spell-out, # blocks rule
b. Lex Phon	level 1 rule	level 2 rule B1: brackets B2: Bracket Erasure	level 1 rule
c. Gov Phon	cyclic spell-out & PIC	~~B1: impossible~~ B2: cyclic spell-out & PIC	cyclic spell-out & PIC
d. Distr Morph	A1: cyclic spell-out & PIC **A2: ?**	~~B1: impossible~~ B2: cyclic spell-out & PIC	cyclic spell-out & PIC
e. Stratal OT	level 1	B1: ? ~~B2: lexicalised~~	cyclic spell-out & PIC

our target: A2

3. A purely procedural perspective for stratal phenomena

(10) do Type B1 effects really exist?
- a. the reality of some may be doubted empirically (Kiparsky's famous Finnish t → s example).
- b. they may be considered as special cases of Type B2. The only thing that B1 has not and that B2 has is the contrast between two affix classes: ANY boundary triggers B1, while only a subset of boundaries triggers B2.
  ==> if the triggering virtue of B1 is thought of not as "any boundary", but as an affix class (which happens to contain all affixes), B1 becomes a particular instance of B2.

Our target: Type A2 phenomena

(11) Type A1: the root is modified
Trisyllabic Shortening (or Laxening)[1]

	non-trisyllabic item		trisyllabic item	
a. class 1 suffix	*sane*	[sejn]	*san-ity*	[sænɪtɪ]
	Christ	[krajst]	*Christ-ian*	[krɪst͡ʃən]
b. class 2 suffix	*maiden*	[mejdən]	*maiden-hood*	[mejdənhəd]
	wild	[wajld]	*wild-ness*	[wajldnɛs]

[1] Trisyllabic Shortening encounters quite a number of counterexamples such as *obese* [ɔwbiis] - *obese-ness* [ɔwbiisnɛs] (class 2), which should but does not react when the class 1 suffix *-ity* is added: *obes-ity* [ɔwbiisitɪ]. The same root can even produce reacting items along with derivatives that remain unimpressed: wild-ness [wajldnɛs] and *wilderness* [wɪldɐnɛs] bear the same class 2 suffix but show contrasting behaviour. Also, Trisyllabic Shortening does not appear to be productive, and additional doubt has been cast on its synchronic reality by psycho-linguistic evidence. Hayes (1995) provides an informed review of the status of Trisyllabic Shortening today.

(12) analysis in Lexical Phonology: level 1 rule
Trisyllabic Shortening

		san-ity	maiden-hood
lexicon		sejn	mejdən
level 1	concatenation	sejn-ɪtɪ	—
	Trisyll. Short.	sæn-ɪtɪ	—
level 2	concatenation	—	mejdən-həd
	rule application	—	—

(13) Distributed Morphology vs. Lexical Phonology
a. there is no Lexicon (morphological and syntactic computation are identical).
b. there is no selective rule application: only one phonology, i.e. rules may not be restricted to a given level (i.e. affix class).

(14) procedural analysis in Distributed Morphology:
PIC (instead of assigning the rule to a phase)
a. on the inner (lower) phase, the rule applies to *san-ity*, but not to *maiden-hood* because the trisyllabic condition is met in the former, but not in the latter case: *-hood* is not parsed at this level.
b. on the second pass in the outer (higher) phase, *maiden-* has already been spelt out, thus the PIC prevents it from being altered by the rule, which now meets the trisyllabic consition.
c. ==> **critical ingredient of this analysis: the unmodified item has already been spelt out on an earlier phase.**

(15) Type A2: the affix is modified
nasal assimilation
a. in- assimilates: im-possible
b. un- does not: un-predictable, un-comfortable

(16) analysis in Lexical Phonology: as before, level 1 rule
nasal assimilation

		im-possible	un-predictable
lexicon		possible	predictable
level 1	concatenation	in-possible	—
	nasal assimilation	im-possible	—
level 2	concatenation	—	un-predictable
	rule application	—	—

(17) procedural analysis (in Distributed Morphology): **impossible ?**
a. A1: modification of the stem
A2: modification of the affix (un- vs. /in-/ → im-)
b. the same solution as for Type A1 does not appear to be available since this would require that

==> the outer affix has already been spelt out when it is merged to the stem

c. class 1 is the **inner** affix class: in-
   class 2 is the **outer** affix class: un-
d. hence when the outer un- phase is interpreted, un- must have already been spelt out in order for the PIC to prevent its modification.
e. however, it cannot have been spelt out at the inner in- phase since it is external to that realm.
f. ==> un- must have been spelt out "somewhere" before it is sent off for interpretation upon the regular spell-out of the phase that it belong to.

(18) alternative representatioanl analysis (PW analysis)
Rubach & Booij (1984:11ss) and Vogel (1991)
a. un- is assigned a Prosodic Word (PW) of its own
   $[un]_{pw}[predictable]_{pw}$
b. in- is not: it counts into the PW of the stem
   $[in\text{-}possible]_{pw}$
c. the assimilation rule, then, applies only within a PW.

(19) summary: 3 competing analyses
a. representational: PW
b. procedural: Lexical Phonology (Lexicon, several phonologies)
c. procedural: Distributed Morphology (no Lexicon, only one phonology)
   problem: necessary spell-out of un- prior to its merger.

(20) assessment of the 3 analyses
a. we dismiss Lexical Phonology on general architectural grounds
   - interactionism
   - the Lexicon
   - distinct computation of words and sentences
   - double and distinct interpretation: PF and LF are done twice (words and sentences)
   see Marantz (1997)
b. the PW analysis makes no claim regarding the morpho-syntactic properties of the affixes involved:
   1. it can run with any derivational history of *in-* and *un-*.
   2. morpho-syntactic contrasts between both affixes are unexpected and unexplained.
   3. contrary to this prediction, the phonological contrast produced by un- and in- is mirrorred by their morpho-syntactic behaviour:
      un-, but not *in-*, is invisible for comparative allomorphy selection:
      - un- allows for ***unlikelier (likelier)*** vs. ****impoliter (politer, more impolite)***.
   4. ==> not trying to derive the phonological contrast from the contrasting morpho-syntactic properties of the affixes is missing a generalisation.
   5. representational solutions by definition are unable to make predictions on the morpho-syntactic side.
c. ==> hence we have to make a procedural non-Lexicon analysis work:
   is there
   1. a technical possibility for un- to be spelt out before its phase is interpreted?
   2. any good reason to believe that this is the case?
   YES, YES.

(21) Can *un-* be spelt out alone?

a. YES – MSO and the SPCU (Smallest Possible Command Unit)

1. Uriagereka (1999) and Chomsky (2001) propose that derivational 'chunks' be interpreted separately by the Phonology (and Semantics). Both Minimalist, with a goal of "…reducing substantive principles to interface (or bare output) conditions…" (Uriagereka p.252)
2. These Command Units, or Phases correlate a lot of the time. Important here is that all left branches constitute separate interpretation structures.
3. *Un-*, but not *in-*, is a monomorphemic left branch – an adjunct

b. What are the restrictions on the SPCU/Phase?

1. SPCU – none. Linearization requires that left branches be interpreted prior to merger. As no-look-ahead is in effect the left branch can be monomorphemic.
2. Phases – The smallest numeration containing a phase head.
   a. But *un-* is not a phase head.
   b. A phase head is not necessary – consider the last numeration in any derivation!

(22) The good reason to believe this.

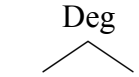
a. BPs *un-* vs. *in-*

b. This is arguably the way adjuncts work.

Late Adjunction: Elements that do not project and are not selected for must (can) be merged a-cyclically. A-cyclically here means 'to a non-Root node'.
(Lebeaux 1988, Stepanov 2001 and others)

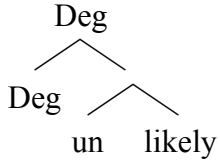
Multiple Spell Out: Separate derivational cascades (e.g. subjects and adjuncts) are islands due to the fact that they must undergo Spell-out before merger to the 'trunk' of the tree.(Uriagereka 1999and others)

1. Morpho-syntactic contrasts between *un* and *in* are expected and explained if one is an adjunct and the other is not.
2. This is the case. The phonological contrast produced by *un-* and *in- is* mirrorred by their morpho-syntactic behaviour:
   un-, but not *in-*, is invisible for comparative allomorphy selection:
   -un- allows for ***unlikelier (likelier)*** vs. ****impoliter (politer, more impolite)***.
3. Derivation of ***unlikelier***: numeration 1: Degree^0, likely
   numeration 2: un

a. 

→ PF {local dislocation of Degree head leads to synthetic comparative: *likelier*}

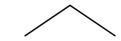
b. un → PF {no assimilation of the nasal, obviously}

c. 

→ PF {un is inserted at a phonological egde, neither the phonology of the Deg head nor *un* is recomputed}

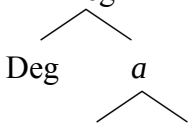
4. Derivation of *more impolite*: numeration 1: in, polite
   numeration 2: Deg^0

   a. *a* = adjective



   → PF {in and polite are interpreted within the same phase, *in* assimilates

   b. Deg



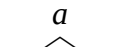
   → PF of *a* has already been determined. Allomorphy of Deg head forces an analytic comparative *more impolite*

(23) The good reason to believe (21).

a. *un-* attaches to nouns (maybe) and verbs and adjectives
   unBob, unhappy, untie
   1. Necessary assumption: (Kennedy 2001) *un-* is reversative always.
      un- reverses the polarity of the adjectival scale
      un- as a reversative in verbal affixation is the standard analysis
      OR
      un- always attaches low – to a root with scalar properties. Its selectional restrictions are semantic, not syntactic (Eva Dobler, Jon Nissenbaum p.c.)
   2. Adjuncts select for semantically viable complements, not for syntactic category.
   3. Adjuncts do not project – they mirror the projection of the structure adjoined to

b. *in-* attaches to ?: We know it always produces an adjective
   1. *in-* cannot attach to verbs or nouns, indicating it has syntactic selectional restrictions and/or effects.
   2. If roots are category neutral (DM) then *in-* is either always attaching to an adjective (created by a null adjectival head), or it is projecting adjectival features.
   3. The second option must be true. ***impoliter (politer, more impolite)***.
   4. *Impossible derivation of *impoliter*: numeration 1:, polite, *a*
      numeration 2: in-
      numeration 3:Deg, *a*{*a,polite*}
      numeration 4: in-, Deg {*Deg,a*}

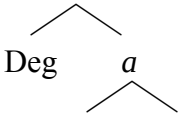
      a. *a*



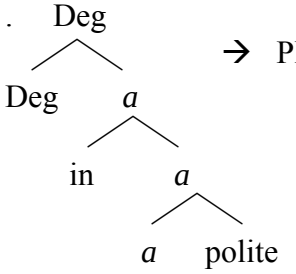
      → PF {*polite*}

      b. in → PF {no assimilation of the nasal, obviously}

      c. Deg



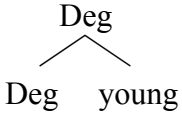
      → PF {synthetic comparative is created}

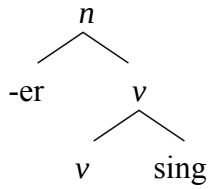
d. . 

→ PF {acyclic merger of *in*-. **inpoliter*}

(24) Therefore:
The differences in derivational history explain;
a. The syntactic selectional distinctions
b. The fact that Bracketing Paradoxes are possible with *un*- but not *in*-
c. The nasal assimilation facts
d. The PW facts: PF interpretation involves projection of prosodic structure

(25) Level 1 vs. Level 2 affixation can be explained in much the same way, minus the adjunction facts.
a. Level 1 affixes are those that:
1. Are interpreted within the same primary Phase as their complement (Marvin 2002): they may take categoryless roots as complements, or,
2. Have phonological selectional requirements
b. Level 2 affixes are those that
1. Cannot merge with categoryless roots: They have category-specific selectional restrictions, therefore their complements will have always undergone previous PF interpretation.

(26) The Procedural account gives us more;
a. *sing/young* vs. *singer/younger*
1. The Degree head may merge with a categoryless root (or anything scalar)
2. The nominalizing head must merge with verbs
b. 1. If category-defining heads trigger interpretation – which we assume is true – then this gives us a distinction between the comparative and nominalized structures in terms of the syllabification of *ng*
2. *ng* undergoes 'g-deletion' phase finally
3. a. 

b. 

c. Therefore even edge effects are not always representational

(27) Level Ordering can be treated in (partially) the same way.

a. Level 2 affixes select for the lexical category of their base, while Level 1 affixes do not.
   1. Only Level 1 affixes may attach to categoryless roots.
   2. This gives us distinctions in phonology (Level 1 phonological rules are those that we expect from the simultaneous interpretation of the root and affix), morphology (Truncation only occurs with Level 1 affixation – when the Level 1 affix is the first affix merged to the root), and semantics (Level 1 affixation is characterized by 'listedness' or 'idiomaticity')
      1. viral (arguably derived from virus +al)
      2. comparable [kámprəbl̩] 'similar, alike, able to be compared'

b. Level 2 affixes' merger to category-defined structures entails that the structure merged to has already undergone interpretation at PF. Hence no phonological effects are seen, no truncation occurs, and the semantics of the constructions are regular.
   1. governmental
   2. comparable [kəmpérəbl̩] 'able to be compared'

c. Level 1 affixes may, however, attach outside Level 2 affixes. Note that phonologically some behave as if part of the previous phase. BUT there is no truncation and no idiosynchrasy. This is predicted in the Procedural account if these affixes select for a phonological host (as do other affixes see Yu 2003 on infixation)

   1. cocaine~cocainism – no stress effects
   2. govern~govern-ment-al –PW-stress effects only in the outer domain
   3. Atayal

Root		Actor Focus	Reciprocal/Reflexive
kaial	'talk'	k-m-aial	m-kaial

(28) More Late Adjunction effects I: Particles

A bracketing paradox occurs iff the construction contains an adjunct.

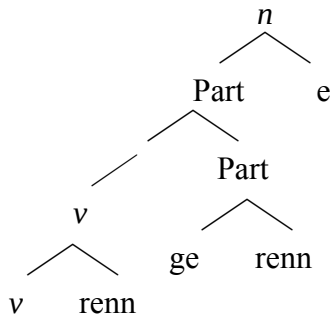
a. Particles in many languages (German, Warlpiri) are phonologically distant from the verb, yet semantically very close (induce idiomatic semantics). Why?

   These structures are also Bracketing Paradoxes.
   There is a procedural account for this anomaly.

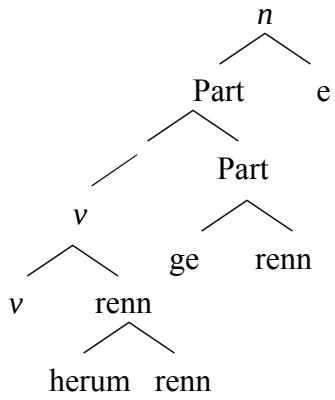
   1. German
      herum-ge-renn-e
      around-ge-run-e
      Semanitc interpretation = ge[herum renn]e (Müller 2003)
   2. Warlpiri
      1. pardi-mi
         'arise + NONPAST'
      2. tirl-pardi-mi
         'open (as of an eye) + NONPAST'
      3. [tirl [[pi] ngu]] → tirl-pu-ngu, *turl-pu-ngu
         'split + PAST' (Pesetsy 1979)

b. These Particles are late adjuncts
Explains separation of verb and particle under V2 in German
Explains phonological selectional restrictions of inflection in Warlpiri (ergative allomprhpy = *-ngku* after disyllabic stems and *-rlu* after longer stems - but the preverb does not come into play (Nash 1986).

1.



2.



(29) More Late Adjunction effects II: Double Affixation in English

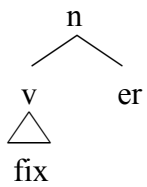
a. English particles are adjuncts too.

1a. fix
b. fixer
c. fix up
d. fixed up
d. fixer upper
e. *fix upper
f. *fixer up

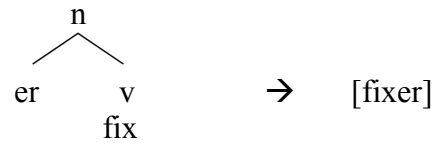
Explains the morphological separation of verb and particle (as in German)
Explains the semantically vacuous double affixation.

b. How?

1. All non- adjuncts within the phase are merged.

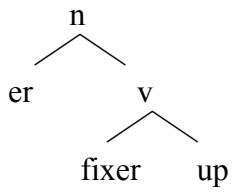


c. The phase is sent to PF (and LF) through MS. Merger and Spell Out occur.



NOTE: Morphological merger does not affect the position of morphemes in the narrow syntax.

d. Late adjunction occurs inside the previously spelled out phase.



e. At the next phase the structure in step 3 is returned to PF. The previous spell out cannot be accessed, only added to (Nissenbaum 2000's LEC).
[*throwerup]

f. Merger re-occurs, as the agentive morpheme can no longer 'see' that it has undergone spell out.
[throweruper]

g. Double Affixation is purely phonological. The syntactic structure in Step 3 is the final structure of 'thrower upper'.

h. Double affixation occurs in Breton and Yiddish as well, and both involve adjuncts.

1.	Breton	bag-ou-ig-ou	'little boats'
		boat-PL-DIM-PL	
2.	Yiddish	dern-er-l-ex	'little thorns'
		thorn-PL-DIM-PL	

(30) So where do we stand?

a. No purely phonological (representational account) can predict;
   a. Where bracketing paradoxes will occur.
   b. When double affixation will occur.

b. A procedural account;
   a. Predicts the distribution of the above phonological anomalies.
   b. Ties the phonological output to syntactically determined 'Levels'

References

Adger, David ms. Stress and Phrasal Syntax. Ms, Queen Mary.
Berman, A. & M. Szamosi 1972. Observations on sentential stress. Language **48**, 304-325.
Bochner, H. 1984. Inflection within derivation. in The Linguistic Review (3): 411-421.
Bresnan, Joan 1971. Sentence stress and syntactic transformations. Language **47**, 257-281.
Chomsky, Noam 2001. Derivation by Phase. Ken Hale: A Life in Language, edited by Michael Kenstowicz, 1-52. Cambridge, Mass.: MIT Press.
Cinque, Guglielmo 1993. A null theory of phrasal and compound stress. Linguistic Inquiry **24**, 239-297.
Féry, Caroline & Shinichiro Ishihara ms. How Focus and Givenness Shapes Prosody. Ms.,

University of Potsdam.
Hayes, Bruce 1995. On what to teach undergraduates: some changing orthodoxies in phonological theory. Linguistics in the Morning Calm 3, edited by Ik-Hwan Lee, 59-77. Seoul: Hanshin.
Kahnemuyipour, Arsalan 2004. The syntax of sentential stress. Ph.D thesis, University of Toronto.
Kennedy, Chris 2001. Polar Opposition and the Ontology of 'Degrees'. Linguistics and Philosophy 24:1, 33-70.
Ladd, Robert 1986. Intonational phrasing: the case for recursive prosodic structure. Phonology **3**, 311-340.
Ladd, Robert 1997. Intonational Phonology. Cambrdige: CUP.
Lebeaux, D. 1988. Language Acquisition and the Form of the Grammar. Doctoral Dissertation. University of Massachusetts.
Marantz, Alec 1997. No escape from syntax: don't try morphological analysis in the privacy of your own lexicon. University of Pennsylvania Working Papers in Linguistics **4.2**, 201-225.
Marvin, T. 2002. Topics in the Stress and Syntax of Words. Doctoral Dissertation. MIT.
Müller, Stefan. 2003. The Morphology of German Particle Verbs: Solving the Bracketing Paradox. Journal of Linguistics 39(2), 275–325.
Nash, David G. 1986. *Topics in Warlpiri Grammar.* Outstanding Dissertations in Linguistics. New York: Garland publishing Inc.
Newell, H. 2006. Semantically Vacuous Double Affixation: A PF Interface Effect. Presented at the 14th Manchester Phonology Meeting (MFM). Manchester University.
Newell, H 2005. Bracketing Paradoxes and Particle Verbs: A late Adjunction Analysis. Sylvia Blaho, Luis Vicente & Erik Schoorlemmer (eds.). *Proceedings of Console XIII*. University of Leiden. ISSN: 1574-499X.
Nissenbaum, J. 2000. Investigations of Covert Phrase Movement. Doctoral Dissertation.MIT.
Pesetsky, David 1979. Russian Morphology and Lexical Phonology. Ms. MIT.
Piggott, G. and H. Newell 2006. 'Syllabification, stress and derivation by phase in Ojibwa'. Ms., McGill University
Rubach, Jerzy & Geert Booij 1984. Morphological and prosodic domains in Lexical Phonology. Phonology Yearbook **1**, 1-27.
Stepanov, A. 2001. Late Adjunction and Minimalist Phrase Structure. Syntax 4:2, 94-125.
Stump, G. (1989) Further remarks on Breton agreement. Natural Language and Linguistic Theory (7) 429-473
Uriagereka, J. 1999. Multiple spell-out. In *Working Minimalism* (Epstein, S.D. and Hornstein, N., eds), pp. 251–282, MIT Press
Vogel, Irene 1991. Level ordering in Italian Lexical Phonology? Certamen Phonologicum II, edited by Pier Marco Bertinetto, Michael Kenstowicz & Michele Loporcaro, 81-101. Torino: Sellier & Rosenberg.
Wagner, Michael 2005. Prosody and Recursion. PhD. dissertation, MIT.
Yu, Alan 2003. The phonology and morphology of infixation. Ph.D. dissertation UC Berkeley.