

Prosodic Movement

Brian Agbayani, Chris Golston, and Dasha Henderer
California State University, Fresno

1. Introduction

A basic assumption in generative grammar is that all movement is syntactic. This paper proposes that hyperbaton in Classical Greek, Latin and Colloquial Russian involves *post-syntactic* movement of prosodic constituents to prosodic edges (for a full treatment of Classical Greek, see Agbayani and Golston 2010). We are led to this conclusion by two major observations about hyperbaton: it moves prosodic constituents (ω and ϕ) while ignoring syntactic constituency, and it respects prosodic constraints such as the Obligatory Contour Principle (OCP) while ignoring syntactic constraints like the Coordinate Structure Constraint (CSC) or the Left Branch Condition (LBC). We propose that this is just what we should find with prosodic movement: sensitivity to prosodic constituency and prosodic constraints and insensitivity to syntactic constituents and syntactic constraints.

2. Prosodic constituency of the fronted string

Previous analyses (e.g., Devine & Stephens 2000, 2006) have missed a critical observation, that the fronted material in hyperbaton—typically local fronting of discourse prominent material—is always a prosodic constituent. Examples (1)-(3) from Latin show that extracted material need not form a syntactic constituent; each element of these disjointed strings belongs to a different syntactic constituent. Prosodically, however, each fronted string forms a prosodic word (ω) with its lexical head right aligned with the word boundary. Less commonly, the fronted strings form phonological phrases (ϕ) as in (3) and (4). Here, lexical XPs are right aligned with the right edges of ϕ s.

- (1) afferre [ad [communem fructum]]
contribute_{inf} to common_{nas} fruit_{nas} →

(*ad communem*)_ω afferre fructum
to common_{nas} contribute_{inf} fruit_{nas}
'to contribute to the *common* good' (Cicero, *Pro Archia* 12) *Latin*
- (2) dignus [hoc [tam [gravi [nomine]]]]
worthy [this_{mas} so heavy_{mas} name_{mas}] →

(*hoc tam gravi*)_ω dignus nomine
This_{mas} so heavy_{mas} worthy name_{mas}
'worthy of *this so dignified* name' (Cicero, *De Oratore* 1.64) *Latin*
- (3) de [compluribus aliis causis]
for several_{fap} other_{fap} reasons_{fap} →

(*compluribus aliis*)_φ de causis
several_{fap} other_{fap} for reasons_{fap}
'for *several other* reasons' (Caesar, *Bello Gallico* 5.54.5) *Latin*

- (4) dignum [[homine [ingenuo atque docto]]
 worthy_{nas} man_{mas} noble_{mas} and learned_{mas} →

(*homine ingenuo*)_φ dignum atque docto
 man_{mas} noble_{mas} worthy_{nas} and learned_{mas}
 ‘worthy of a learned and noble man’ (Cicero, *Pro Plancio* 14.35)

Latin

3. Fronting of prosodic constituents

In (5)–(7) extracted material is fronted to the left edge of its prosodic phrase. Devine and Stephens (2000) argue that this kind of fronting results from local syntactic movement of a complement to the specifier of the selecting lexical head. But their syntactic analysis is problematic for a number of reasons. First, it moves syntactic non-constituents, as we have just seen. Second, it appears to be insensitive to anti-locality conditions that restrict movement from the complement to the specifier of a single XP (Grohmann 2001; Abels 2003):¹

- (5) (*es tās allās*)_ω épempe **summak^hīās**
 to the_{fap} other_{fap} sent_{3s} allies_{fap}
 ‘he sent (messengers) to the other allies’ (Herodotus 1.82)

Cl. Greek

- (6) (*in eodem*)_ω occiderint **castello**
 in same_{mds} died_{3p.pf.subj} castle_{mds}
 ‘died in the same castle’ (Caesar, *BG* 37)

Latin

- (7) (*za etu*)_ω blagodaren **silu**
 for this thankful power_{fas}
 ‘thankful for this power’ (Russian National Corpus 2007)

Russian

Hyperbaton is not always extremely local, so not all cases violate anti-locality. Examples (8)–(10), for instance, involve long-distance hyperbaton, where a ω is fronted to the left edge of its intonational phrase.

- (8) (*táuta*)_ω es toūs pántas héliēnas apéripse ho kúros **tà épea**
 these_{nap} to the_{map} all_{map} Greek_{map} directed_{3s} the_{mns} Cyrus the_{nap} words_{nap}
 ‘Cyrus directed these words to all the Greeks’ (Herodotus 1.153)

Cl. Greek

- (9) (*ea*)_ω profugus ex Peleponneso auctoritate magis quam imperio regebat **loca**
 those_{nap} exiled_{mns} from Peleponneso authority more than power ruled_{3ipf} areas_{nap}
 ‘exiled from Peleponneso, he ruled those areas more by authority than power’ (Livy, 1.8)

Latin

- (10) (*vot etu beluju*)_ω tože nado kip’atit’ **rubašku**
 one this_{fas} white_{fas} also must to.boil shirt_{fas}
 ‘This one white shirt needs to be boiled as well.’ (RRR corpus 1973:387)

Russian

4. Fronting obeys the Obligatory Contour Principle

Hyperbaton is sensitive to prosodic well-formedness, as we might expect of movement that is prosodic rather than syntactic. Hyperbaton is blocked when movement would result in homophonous function words within the same prosodic word (Golston 1995), an instantiation of the OCP. In Classical Greek, where possessors are commonly fronted to a position between determiner and noun, e.g., (11), movement is not possible when it would bring together homophonous articles, e.g., (12). Fronting is permitted, however, when something appears between the homophonous articles, e.g., (13).

¹ In Abel’s proposal, the anti-locality constraint holds of Phase heads (C and *v*), though see Grohmann (2001) for a more generalized, domain-based approach.

Note that in (13), hyperbaton must front the Det-N string to the left of the entire possessed DP to avoid the restriction on adjacent homophonous function words.

- (11) $t\grave{e}n$ ($t\acute{o}n$ $Gergit^h i\acute{o}n$)_ω $p\acute{o}lin$
 the_{f_{as}} the_{m_{gp}} Gergithian_{m_{gs}} city_{f_{as}}
 ‘the city of the Gergithians’ (Xenophon, *Hellenica* 3.1.22) *Cl. Greek*
- (12) *($t\acute{o}n$ $t\acute{o}n$ $t^h e\acute{o}n$)_ω $onom\acute{a}t\acute{o}n$
 the_{n_{gp}} the_{m_{gp}} gods_{m_{gp}} names_{n_{gp}}
 ‘of the names of the gods’ (construct) *Cl. Greek*
- (13) ($t\acute{o}n$ $t^h e\acute{o}n$)_ω ($t\acute{o}n$ $onom\acute{a}t\acute{o}n$)_ω
 the_{m_{gp}} gods_{m_{gp}} the_{n_{gp}} names_{n_{gp}}
 ‘of the names of the gods’ (Plato, *Cratylus* 400d) *Cl. Greek*

Similarly, movement in Latin is blocked when it brings together homophonous complementizer *cum* ‘when’ and preposition *cum* ‘with’ as in (14), though PP fronting like this is very common in subordinate clauses. Such movement is freely allowed when another word appears between the homophonous function words as in (15).

- (14) **cum cum sicario ...*
 when with murderer_{mas} ...
 ‘when with a murderer...’ *Latin*
- (15) *cum loquerer cum Phania*
 when speak_{1,impf.subj} with Phania_{mas}
 ‘when I was speaking with Phania’ (Cicero, *ad Familiares* 3.5.1) *Latin*

In Russian, fronting is blocked when it brings together homophonous function words *čto* ‘what’ in nominative and accusative cases and complementizer *čto* ‘that’, e.g., (16-17). Fronting is allowed when something appears between the homophonous function words, e.g., (18-19).

- (16) **čto čto obuslovalo*
 what_{ns} what_{as} conditions
 ‘What conditions what?’ (Bošković 2002) *Russian*
- (17) **ja priznaju čto čto ja sdelal bylo sdelano....*
 I admit that what I did was done
 ‘I admit that what I did was done...’ *Russian*
- (18) *čto neprestano čto obuslovalo*
 what_{ns} constantly what_{as} conditions
 ‘What constantly conditions what?’ *Russian*
- (19) *ja priznaju čto to čto ja sdelal bylo sdelano....*
 I admit that this that I did was done
 ‘I admit that this (thing) I did was done...’ (NRC 2003) *Russian*

5. Fronting disobeys syntactic island constraints

A major problem with syntactic analyses of hyperbaton is that it exhibits insensitivity to a number of syntactic islands, including the Coordinate Structure Constraint (Ross 1967). In each of the following examples, the first conjunct is extracted out of its coordinate structure.

- (20) **polémou** péri **kai** **asp^haleíās**
 war_{mgs} about and safety_{fgs}
 ‘about *war* and safety’ (Thucydides 5.11.4) *Cl. Greek*
- (21) **sapientiae** laudem **et** **eloquentiae**
 wisdom_{fgs} reputation_{mas} and wisdom_{fgs}
 ‘a reputation for *wisdom* and eloquence’ (Cicero, *de Oratore* 2.363) *Latin*
- (22) **perila** takije xorošije sdelani **i** **stupen’ki**
 rails_{apl} such_{ap} good_{ap} made and steps_{ap}
 ‘Made such good *rails* and steps’ (RNC 2005) *Russian*

Hyperbaton is also insensitive to the Left Branch Condition, which prohibits fronting of left branch elements that strand their complements (Ross 1967).

- (23) **pasin** éreske taúta **tóis** **állois** **présbesin**
 all_{mdp} pleased these the_{mdp} other_{mdp} ambassadors_{mdp}
 ‘these things pleased *all* the other ambassadors’ (Demosthenes 19.157) *Cl. Greek*
- (24) **multas** adferunt **causas**
 many_{fap} to.bring_{3p} reasons_{fap}
 ‘they bring up *many* reasons’ (Caesar, *BG* 6.22) *Latin*
- (25) **čiyu** ty vstretyl **ženu?**
 whose you met wife
 ‘*Whose* wife did you meet?’ (Zavitnevich 2001:13) *Russian*

Hyperbaton also disobeys the Adjunct Condition (Huang 1982, Chomsky 1986, Takahashi 1993). In (26)-(28) substrings of an adjunct phrase are fronted out of the adjunct.

- (26) **eks** **állēs** el^honta **kómmēs**
 from another_{fgs} coming village_{fgs}
 ‘coming *from another* village’ (Herodotus 1.196) *Cl. Greek*
- (27) **suo** stare **loco**
 their_{ngp} stayed place_{ngp}
 ‘they stayed in *their* place’ (Livy, 9.37.3; D&S 11) *Latin*
- (28) **v raznom** naxod’ats’a **položeni**
 in different_{nins} are.present situation_{nins}
 ‘They are present *in a different* situation.’ (RRR 1973:387) *Russian*

Hyperbaton ignores so-called Freezing Islands (Wexler & Culicover 1980) as well. In (29) *hósois* ‘whatever’ moves from an object that has itself been moved and in (30)-(31) *nullam* ‘no’ and *kakix* ‘such’ have been fronted out of constituents that have themselves been fronted.

- (29) (**hósois**)_ω ánt^hrōpoi **sítoisin** **è** **potóisin** hugiaínontes es díaitan k^hrōntai
 whatever_{mdp} people_{mnp} food_{mdp} or drink_{mdp} being.well_{mnp} in diet_{fas} use_{3p}
 ‘*whatever* food or drink healthy people use in their diet’ (Hippocrates, *Affections* 39.1) *Cl. Greek*
- (30) (**nullam**)_ω video (**gravem**)_ω subesse **causam**
 no_{apl} see_{1s} serious_{ap} be.there_{inf} reason_{apl}
 ‘I see there to be *no serious* reason.’ (Cicero, *Epistulae ad Atticum* 1.10.2) *Latin*

- (31) (*kakix*)_ω ja sebe (*blinov*)_ω segodnja nadelala **vkusnyx**
 such_{ap} I to.self pancakes_{ap} today made tasty_{ap}
 I made *such tasty pancakes* for myself today. (RRR 1970:236)

Russian

6. Fronting violates lexical integrity

Hyperbaton also ignores lexical integrity, splitting compounds and proper names that consist of two or more prosodic words. Names can be split in all three languages:

- (32) (*Sólōnos*)_ω eipóntos **Athēnaíou** tèn gnōmēn
 Solon_{mgs} speaking_{mgs} Athenian_{mgs} the_{fās} opinion_{fās}
 ‘after *Solon*-the-Athenian had spoken his opinion’ (Aeschines 3.108; D&S 2000, 93) *Cl. Greek*

- (33) (*ad Castra*)_ω exploranda **Cornelia**
 to Camp_{nap} exploring_{nap} Cornelia_{nap}
 ‘exploring *Camp* Cornelia’ (Caesar, *Bello Civili* 2.24; D&S 2006, 275) *Latin*

- (34) (*Gal’a*)_ω prijaxala **Smirnova** iz Jerevana.
 Gal’a_{fns} came Smirnova_{fns} from Jerevan.
 ‘*Gal’a* Smirnova came from Jerevan.’ (RRR 1973) *Russian*

Russian allows compounds to be split as long as each member of the compound is a prosodic word (Henderer 2009):

- (35) (*v vagon*)_ω ona xodila **-restoran** obedat’
 to car she went dining to.eat
 ‘She went *to the dining-car* to eat.’ (RRR 1973:390) *Russian*

- (36) (*plat’je*)_ω ona sebe sšila **-kostjum**
 dress_{nas} she to.self sewed suit_{nas}
 ‘She sewed herself a *dress-suit*.’ (RRR 1973:390) *Russian*

Such splitting of compounds is marginal in Latin, where it only occurs in poetry:

- (37) (*septem*)_ω subiecta **-trioni**
 seven under oxen_{mds}
 ‘under the *SevenOxen* (constellation)’ (Vergil, *Georgiacs* 3.381) *Latin*

Greek compounds form single prosodic words and therefore cannot be split by hyperbaton.

7. Fronting is semantically vacuous

Another strong argument for the prosodic nature of hyperbaton is its semantic vacuity. Fronted reflexive and reciprocals are interpreted as if they were *in situ*, following their antecedents.

- (38) ei dé ge mēdamóu **heautòn**_i apokrúptoito [ho poiētēs]_i
 if and prt never himself_{mas} conceal_{3s.opt} the_{mns} poet_{mns}
 ‘and if the poet should never conceal *himself*’ (Plato, *Republic* 393c11) *Cl. Greek*

- (39) **se**_i Milo_i continuit
 self Milo_{mns} restrained_{3s}
 ‘Milo restrained *himself*’ (Cicero, *Pro Milone* 15.40) *Latin*

- (40) *seb'a_i* oni_i ubirat' ne budut
 themselves_{ap} they get.rid not will
 'They are not going to get rid off *themselves*.' (RNC 2003)

Russian

8. Analysis

Following Agbayani & Golston (2010), we assume a three-part serial model of grammar where syntax feeds an interface module, which, in turn, feeds phonology. In this model, the role of syntax is limited to determining dominance relations and has no say in linear precedence relations whatsoever. Thus, the syntax shapes the hierarchical structure of sentences, but it is phonology that determines the left/right order of words.

- | | | | |
|------|---|---|--|
| (41) | <div style="border: 1px solid black; padding: 2px; display: inline-block;">Syntax</div>
↓
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Interface</div>
↓
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Phonology</div> | $[\acute{e}k^h e_i v, [p\acute{u}r_N]_{NP}]_{VP}$

$((\acute{e}k^h e_i)_\omega (p\acute{u}r_\omega)_\phi)_\phi$

$((p\acute{u}r_\omega)_\phi (\acute{e}k^h e_i)_\omega)_\phi$ | (immediate dominance)

(linear precedence)

(hyperbaton) |
|------|---|---|--|

The syntax determines the sisterhood relations of *ék^hei* 'has' and *pûr* 'fire' but it does not decide which of them linearly precedes the other. The interface module creates prosodic constituency and determines linear precedence relations by right-aligning syntactic edges to prosodic edges. Thus, in the case of *ék^hei pûr* the interface determines that *ék^hei* and *pûr* are each a ω , that the XPs headed by *ék^hei* and *pûr* are each a ϕ , and that the word order is *ék^hei pûr* rather than *pûr ék^hei* because XPs like *pûr* 'fire' right align with ϕ s. We assume the following universally undominated constraints:

- (42) Universally undominated constraints (Selkirk 1995)
- | | |
|-------------|--|
| LAYEREDNESS | No C^i dominates a $C^j, j > i$.
(e.g., no σ dominates a foot) |
| HEADEDNESS | Any C^i must dominate a C^{i+1} .
(e.g., a ω must dominate a foot) |

The crucial constraints that determine left/right order in the Agbayani & Golston model are just those independently needed for the creation and alignment of prosodic structure:

- (43) ALIGNR(X^0, ω): The right edge of every lexical X^0 is aligned with that of a ω .
 ALIGNR(ω, X^0): The right edge of every ω is aligned with that of a lexical X^0 .
 ALIGNR(XP, ϕ): The right edge of every lexical XP is aligned with that of a ϕ .

These constraints are simultaneously responsible for assigning prosodic edges and for (right-)aligning syntactic heads and phrases to those edges. As the following shows, Classical Greek 'head-initial' *ék^hei pûr* 'has fire' is preferred to 'head-final' *pûr ék^hei* simply due to alignment: the former right-aligns every XP with a phonological phrase edge, which the latter fails to do:

(44) Lexical XP: $\acute{e}k^h ei p\acute{u}r$ ‘has fire’

$[\acute{e}k^h ei_V, p\acute{u}r_{NP}]_{VP}$	$ALIGNR(X^0, \omega)$	$ALIGNR(\omega, X^0)$	$ALIGNR(XP, \phi)$
☞ a. $(\acute{e}k^h ei_\omega p\acute{u}r_\omega)_\phi$			
b. $(p\acute{u}r_\omega \acute{e}k^h ei_\omega)_\phi$			*!
c. $(\acute{e}k^h ei_\omega p\acute{u}r_\sigma)_\phi$	*!		
d. $(p\acute{u}r_\sigma \acute{e}k^h ei_\omega)_\phi$	*!		*
e. $(\acute{e}k^h ei_\sigma p\acute{u}r_\omega)_\phi$	*!		
f. $(p\acute{u}r_\omega \acute{e}k^h ei_\sigma)_\phi$	*!		*
g. $(\acute{e}k^h ei_\sigma p\acute{u}r)_\phi$	*!*		
h. $(p\acute{u}r_\sigma \acute{e}k^h ei)_\phi$	*!*		*

$ALIGNR(X^0, \omega)$ aligns lexical heads $\acute{e}k^h ei$ and $p\acute{u}r$ with a prosodic word boundary as in (44a-b). $ALIGNR(\omega, X^0)$ determines head-initial order and rejects the head-final status of (44b). (44c-h) are rejected because one of the lexical words is parsed as a syllable.

To keep the output of the postlexical phonology similar to the input, Agbayani & Golston propose three faithfulness constraints.

- (45) $STAY_\omega$ No daughter of ω moves.
 $STAY_\phi$ No daughter of ϕ moves.
 $STAY_\iota$ No daughter of ι moves.

Here is how these constraints maintain faithfulness to the input. Below is an example with the prosodic structure and linear order already defined by the interface constraints (Classical Greek).

- (46) $(apokt\acute{e}inantes_\omega (mou\ \t\acute{o}n\ p\acute{a}ida_\omega)_\omega)_\phi$
 killing_{mnp} my_{mgs} the_{mas} child_{mas}
 ‘killing my child’ (Antiphon, *Tetralogia* 3.7.1)

$((apokt\acute{e}inantes)_\omega (mou_\sigma \t\acute{o}n_\sigma p\acute{a}ida_\omega)_\omega)_\phi$	$STAY_\omega$	$STAY_\phi$
☞ a. $((apokt\acute{e}inantes)_\omega (mou_\sigma \t\acute{o}n_\sigma p\acute{a}ida_\omega)_\omega)_\phi$		
b. $((mou_\sigma \t\acute{o}n_\sigma p\acute{a}ida_\omega)_\omega (apokt\acute{e}inantes)_\omega)_\phi$		*!
c. $((apokt\acute{e}inantes)_\omega (mou_\sigma p\acute{a}ida_\omega \t\acute{o}n_\sigma)_\omega)_\phi$	*!	
d. $((apokt\acute{e}inantes)_\omega p\acute{a}ida_\omega mou_\sigma \t\acute{o}n_\sigma)_\omega)_\phi$	*!*	

No constraints are violated in (46a) since nothing moved within a ω or a ϕ . Candidate (b) violates $STAY_\phi$ by moving leftward a daughter of ϕ , $(mou\ \t\acute{o}n\ p\acute{a}ida)_\omega$. Candidate (c) violates $STAY_\omega$ because $(p\acute{a}ida)$, a daughter of ω , moved to the left. And candidate (d) violates $STAY_\omega$ twice, once for each syllable that separates it from the end of the phrase.

Hyperbaton typically involves fronting of discourse prominent material. We assume that longer movement correlates with increased prominence in Classical Greek. To account for short and long distance movement we propose the following constraints (47) under which prominent material moves across only one element to the left of its interface position (short fronting), while what we call ‘maximally prominent’ material moves all the way to the left edge of an intonational phrase ι (long fronting). The case of short fronting is shown in the tableau for example (48). Here (48a) is the winning candidate because it does not violate $PROML$, while minimally violating lower ranked $STAY_\phi$ (example (48) is slightly abbreviated in the tableau for ease of exposition).

- (47) $PROML$ Prominent material occurs to the left of its interface position.
 $\iota PROM$ Maximally prominent material is initial in ι .

- (48) $t\acute{a}$ $d\acute{e}$ $toi\acute{a}u\tau\acute{a}$ $t\acute{o}n$ $helk\acute{e}\acute{o}n$ $tom\acute{e}s$ $d\acute{e}itai$
 the_{nap} and such_{nap} the_{ngp} wounds_{ngp} incision_{fgs} require_{3p}
 ‘and such kinds of wounds require incision’ (Hippocrates, *Headwounds* 13.35)

	$(\dots(\text{t}\hat{\text{o}}\text{n}_\sigma \text{helk}\acute{\text{e}}\text{o}\text{n}_\omega)_\omega)_\phi$ $(\text{d}\acute{\text{e}}\text{i}\text{t}\text{a}\text{i}_\omega \text{tom}\acute{\text{e}}\text{s}_\omega)_\phi$ ι	STAY ω	PROML	STAY ϕ
E a.	$(\dots(\text{t}\hat{\text{o}}\text{n}_\sigma \text{helk}\acute{\text{e}}\text{o}\text{n}_\omega)_\omega)_\phi$ $(\text{tom}\acute{\text{e}}\text{s}_\omega \text{d}\acute{\text{e}}\text{i}\text{t}\text{a}\text{i}_\omega)_\phi$ ι			*
b.	$(\dots\text{tom}\acute{\text{e}}\text{s}_\omega (\text{t}\hat{\text{o}}\text{n}_\sigma \text{helk}\acute{\text{e}}\text{o}\text{n}_\omega)_\omega)_\phi$ $(\text{d}\acute{\text{e}}\text{i}\text{t}\text{a}\text{i}_\omega)_\phi$ ι			***!*
c.	$(\dots(\text{t}\hat{\text{o}}\text{n}_\sigma \text{helk}\acute{\text{e}}\text{o}\text{n}_\omega)_\omega)_\phi$ $(\text{d}\acute{\text{e}}\text{i}\text{t}\text{a}\text{i}_\omega \text{tom}\acute{\text{e}}\text{s}_\omega)_\phi$ ι		*!	

The case of long fronting is shown in the tableau for example (49). Here, the constraint ι PROM plays a role in ensuring that maximally prominent material undergoes long distance movement at the expense of lower ranked STAY ϕ . Candidate (a) wins because it moves ‘maximally prominent’ material long distance, to the left edge of the intonational phrase.

- (49) *tà epi deksià ho spasmòs epilambánei*
 the_{nap} on right_{nap} the_{mns} spasm_{mns} seize_{3s}
 ‘the spasm seizes the (parts) on the right’ (Hippocrates, *Headwounds* 13.48)

	$((\text{ho}_\sigma \text{spasm}\acute{\text{o}}\text{s}_\omega)_\omega)_\phi$ $(\text{epilambánei})_\omega$ $(\text{t}\hat{\text{a}}_\sigma \text{epi}_\sigma \text{deksi}\acute{\text{a}}_\omega)_\omega)_\phi$ ι	STAY ω	ι PROM	STAY ϕ
E a.	$((\text{t}\hat{\text{a}}_\sigma \text{epi}_\sigma \text{deksi}\acute{\text{a}}_\omega)_\omega)_\phi$ $((\text{ho}_\sigma \text{spasm}\acute{\text{o}}\text{s}_\omega)_\omega)_\phi$ $(\text{epilambánei})_\omega)_\phi$		**	*
b.	$((\text{ho}_\sigma \text{spasm}\acute{\text{o}}\text{s}_\omega)_\omega)_\phi$ $(\text{t}\hat{\text{a}}_\sigma \text{epi}_\sigma \text{deksi}\acute{\text{a}}_\omega)_\omega$ $(\text{epilambánei})_\omega)_\phi$		***!*	
c.	$((\text{ho}_\sigma \text{spasm}\acute{\text{o}}\text{s}_\omega)_\omega)_\phi$ $(\text{epilambánei})_\omega$ $(\text{t}\hat{\text{a}}_\sigma \text{epi}_\sigma \text{deksi}\acute{\text{a}}_\omega)_\omega)_\phi$ ι		***!***	
d.	$((\text{deksi}\acute{\text{a}}_\omega)_\phi((\text{ho}_\sigma \text{spasm}\acute{\text{o}}\text{s}_\omega)_\omega)_\phi((\text{epilambánei})_\omega(\text{t}\hat{\text{a}}_\sigma \text{epi}_\sigma)_\omega)_\phi)_\iota$	*!		*

Finally, the OCP effects discussed in section 4 would result from the following undominated constraint (adapted from Yip 1993):

- (50) *ECHO No phonologically identical syllables occur within a ω .

The constraint rules out identical function words which occur within the same phonological word.

9. Conclusion

In this paper we proposed that hyperbaton in Classical Greek, Latin and Colloquial Russian involves post-syntactic movement of prosodic constituents to prosodic edges. We were led to this conclusion by two major observations about hyperbaton: it moves prosodic constituents (ω and ϕ) while ignoring syntactic constituency, and it respects prosodic constraints such as the OCP while ignoring a host of well-known syntactic constraints. This is just what we should find with prosodic movement: sensitivity to prosodic constituency and prosodic constraints and insensitivity to syntactic constituents and syntactic constraints.

References

- Abels, Klaus. 2003. *Successive cyclicity, anti-locality, and adposition stranding*. PhD dissertation, University of Connecticut.
- Agbayani, Brian, and Chris Golston. 2010. Phonological movement in Classical Greek. *Language* 86.1. 133-167.
- Bošković, Željko. 2002. On multiple Wh-Fronting. *Linguistic Inquiry* 33. 351-384.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, Mass: MIT Press.
- Devine, Andrew M. and Laurence D. Stephens. 2000. *Discontinuous syntax: Hyperbaton in Greek*. New York: OUP.
- Devine, Andrew M. and Laurence D. Stephens. 2006. *Latin Word Order: Structured Meaning and Information*. New York: OUP.
- Golston, Chris. 1995. Syntax outranks phonology: evidence from Ancient Greek. *Phonology* 21, 325-357.
- Grohmann, Kleanthes. 2001. Anti-locality and clause types. *Theoretical Linguistics* 27.3.
- Henderer, Dasha. 2009. Phonological movement is colloquial Russian. MS, CSU Fresno.

- Huang, James Cheng-Teh. 1982. *Logical relations in Chinese and the theory of grammar*. PhD dissertation, MIT.
- Ross, John R. 1967. *Constraints on variables in syntax*. PhD Dissertation, MIT.
- Selkirk, Elizabeth. 1995. The Prosodic Structure of Function Words. *University of Massachusetts Occasional Papers* 18. UMass, Amherst: GLSA 439-470.
- Takahashi, Daiko. 1993. *Minimality of movement*. Doctoral dissertation, University of Connecticut, Storrs.
- Yip, Moira. 1993. The interaction of ALIGN, PARSE-Place and *ECHO in Reduplication. Paper presented at the Rutgers Optimality Workshop.

Proceedings of the 28th West Coast Conference on Formal Linguistics

edited by Mary Byram Washburn,
Katherine McKinney-Bock, Erika Varis,
Ann Sawyer, and Barbara Tomaszewicz

Cascadilla Proceedings Project Somerville, MA 2011

Copyright information

Proceedings of the 28th West Coast Conference on Formal Linguistics
© 2011 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 978-1-57473-441-6 library binding

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Agbayani, Brian, Chris Golston, and Dasha Henderer. 2011. Prosodic Movement. In *Proceedings of the 28th West Coast Conference on Formal Linguistics*, ed. Mary Byram Washburn et al., 231-239. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #2455.