

Aspects of the prosody of Irish synthetic and analytic forms

Andrew Dowd

Prosody Interest Group

1/15/2009

- Goals: lay out the problem presented by Irish verbal agreement and the distribution of “synthetic” and “analytic” forms.
- Provide a prosodically motivated account of the distribution.

Data:

- Irish verbal agreement is roughly complementary with overt pronominal elements.
 - **Synthetic forms** show agreement and a null pronominal subject.
 - Analytic forms show no agreement and an overt pronominal subject.
1. Ní **aithneoinn** (*mé) go deo é.
neg recognize.cond.1sg 1sg to ever 3sg
“I’d never recognize him.”
 2. **Tabharfaimid** (*muid) freagra ar do ghearán go tapa
Give.fut.1pl 1pl answer on 2sg complaint quickly
“We will answer your complaint quickly.”
 3. Éist le fuaim na habhann agus gheobhaidh tú breac
listen to sound the river.gen and get.fut 2sg trout
“Listen to the sound of the river and you’ll catch a trout.”
 4. Cad é a déarfadh siad, i do bharúil?
What C say.cond 3pl in 2sg opinion
“What would they say, in your opinion?”
- Synthetic forms are also restricted to pronominal subjects; analytic forms appear with non-pronominal elements:
5. a. Déarfadh daoine áirithe liom go bhfuil mé soineanta
say.cond people certain to.me C be.pres 1sg naive
“Certain people would tell me I’m naive.”
b. ***Déarfaidís** daoine áirithe liom go bhfuil mé soineanta
say.cond.3pl people certain to.me C be.pres 1sg naive
“Certain people would tell me I’m naive.”

Agreement is also only with first conjuncts (which must be null and pronominal):

6. **Táim**-se agus Michael Everson ag obair ar na bogearraí sin i gcónaí.
 be.1sg-emph and Michael Everson prog work on the software that in always
 “Michael Everson and I are always working on that software.”

Agreement is also bled by A' movement:

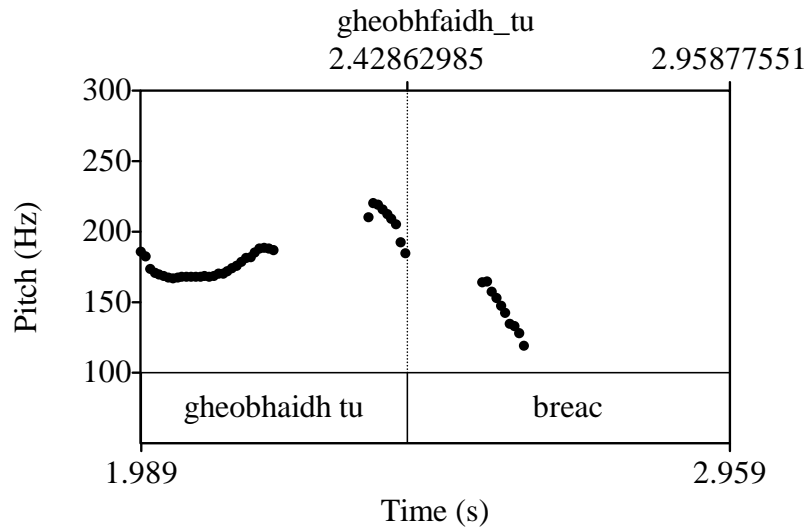
7. a. is léir dom-sa gur muid_i-ne a bhain t_i an t-olltoghchán.
 cop clear to.1sg.emph C.cop.pst 2pl.emph a_L take.pst the general.election
 “It’s clear to me that it’s us that took the general election.”
- b. *is léir dom-sa gur muid_i-ne a **bhaineamar** t_i an t-olltoghchán.
 cop clear to.1sg.emph C.cop.pst 2pl.emph a_L take.pst.2pl the general.election
 “It’s clear to me that it’s us that took the general election.”

- The distribution of agreement is odd, because agreement *fails to appear* in some strange places, i.e. second conjuncts, non-pronominal subjects, *wh*-words.
- Perhaps an explanation can be found in the prosody.

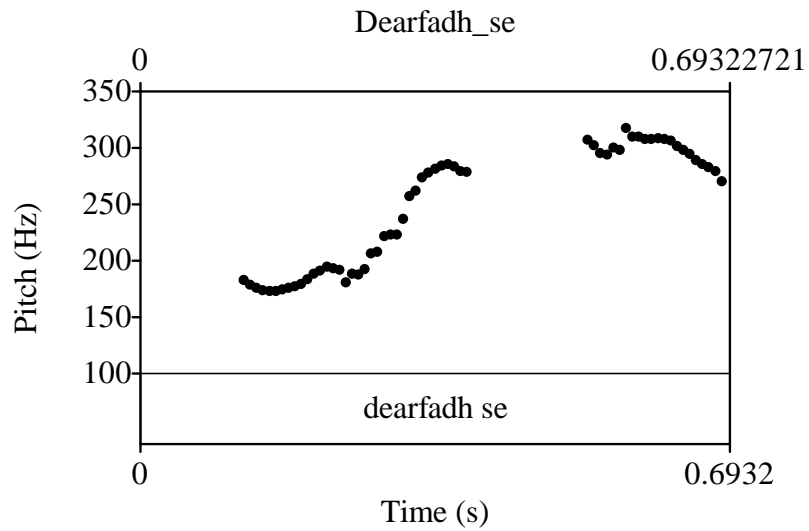
Prosody:

- Pronominal subjects in Irish are enclitic on the verb.
 - Evidence from VP-peripheral adverbs:
8. a. Tá, ar ndóigh, an scéal níos deacra fós
 be of course the story more difficult yet
 “The story is, of course, more difficult yet.”
- b. Tá, ar ndóigh, an-bhrú ar aos óg na Gaeltachta ó mhórmheáin.
 be of course pressure on people young the Gaeltacht.gen from mass.media
 “There is, of course, a lot of pressure on young people of the Gaeltacht from mass media.”
9. D’fhéadfadh siad, ar ndóigh, i bhfad níos mó Gaeilge a labhairt
 can.cond 3pl of course in far comp. more Irish to speak
 “They could, of course, speak far more Irish.”
- Note that the adverb placement in (8) does not correspond to the placement of the post-subject pause.
 - Evidence from word-level L*+H intonational contour in Donegal Irish:

10. *Éist le fuaim na habhann agus gheobhfaidh tú breac*
 “Listen to the sound of the river and you’ll catch a trout.”

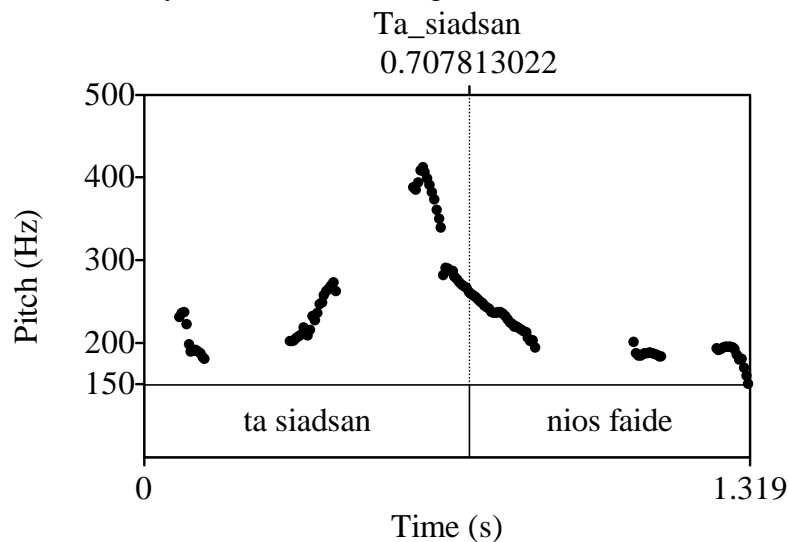


11. *Déarfadh sé caidé a bheadh le rá aige*
 “He would say what he had to say.”

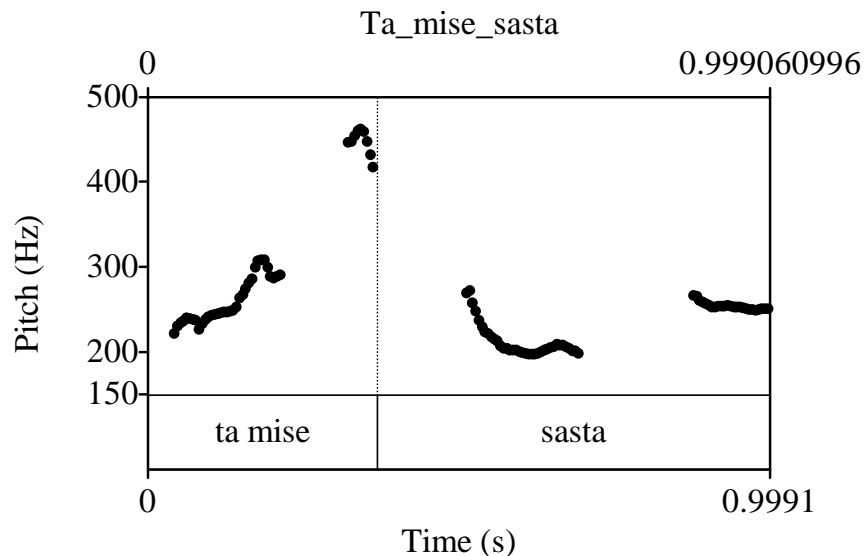


- Emphatic subjects are similarly enclitic on the verb in most cases.

12. *Tá siadsan nios faide ar an taobh dheas ná Fianna Fáil.*
 “They are further to the right than Fianna Fáil.”

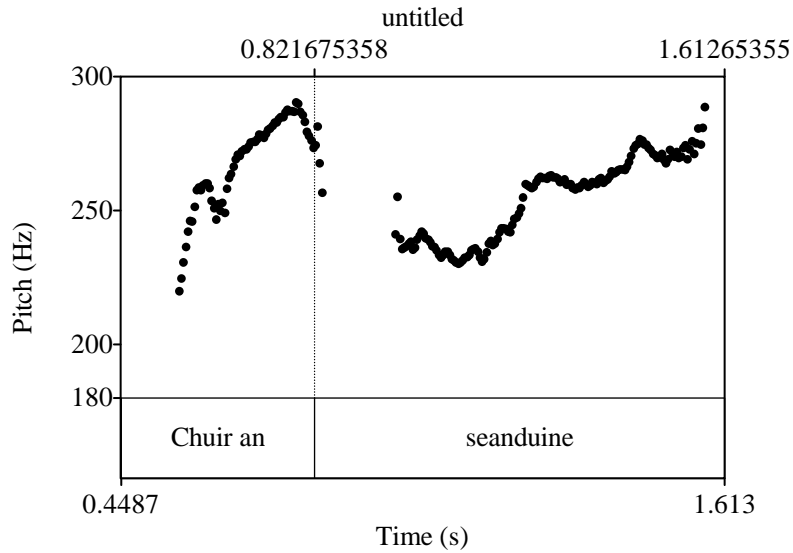


13. *Tá mise sásta go ndearna mé an rud ceart ag an am.*
 “I am satisfied that I did the right thing at the time.”



- If the prosodic word formed by this process of subject cliticization is the domain for agreement, then the environments excluded from agreement should be outside the prosodic word headed by the verb.
- A prosodic word boundary should appear between verbs and non-pronominal subjects:

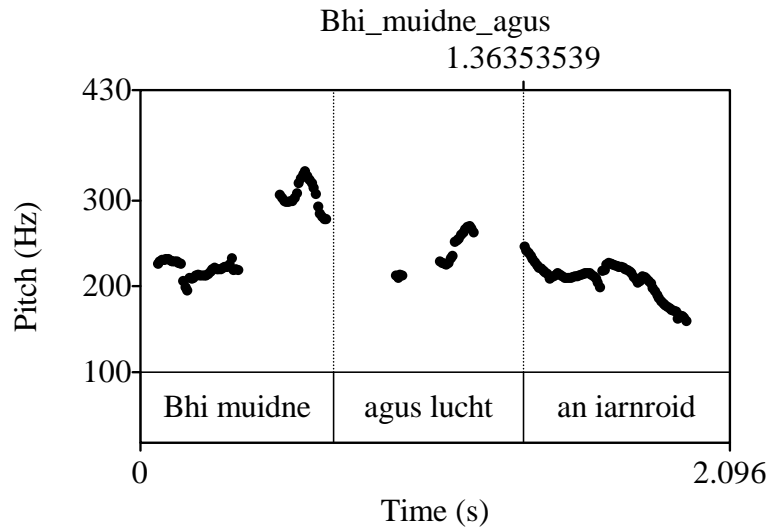
14. Chuir an seanduine fáilte rompu ina n-ainm féin
 put.pst the old.man welcome before.3pl in.3pl name refl
 “The old man welcomed them in their own name.”



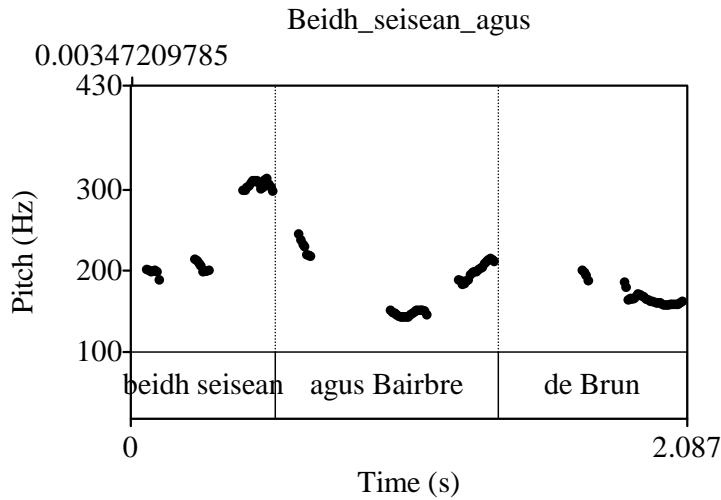
(from Ryan's data)

- Analytic forms should show cliticization of only the first conjunct onto the verb:

15. Bhí muidne agus lucht an iarnróid ag teacht crosach ar a chéile
 “We and the railroad workers were quarreling with one another.”



16. *Beidh seisean agus Bairbre de Brún ag caint anocht*
 “He and Bairbre de Brún will be speaking tonight.”



- Question: are the pauses after the first subject conjunct comparable to post-subject pauses with simplex subjects? I'm still looking at the data.

The upshot:

- A prosodic-word bounded model of synthetic forms correctly predicts that agreement will fail to apply in cases of second conjuncts, non-pronominal subjects, and *wh*-words.
- Agreement applies when a pronominal is within the prosodic word headed by the verb, and not otherwise (prosodic incorporation of pronominals)
- What is the mechanism for this?
- Lexical selection (Mascaró 1996, et al): inputs consist of sets of allomorphs.
- Particular candidates will stand in a correspondence relation to particular input allomorphs.
- Faithfulness violations are computed with respect to the candidate's particular input allomorph.
- Essentially, allomorphy does not count against faithfulness.
- The allomorphs available in competitions involving Irish verbs consist of synthetic forms, bare analytic forms, and the words consisting of sequences of analytic forms and overt pronominals.

17. *Déanann+ mé* – “I do”

{ <i>déanann-mé</i> , <i>déanaim</i> }	PARSE- INTO- ω	LEX-TO- ω	HEAD- LEX	NONREC
[<i>déanann mé</i>]		*!		
☞ [<i>déanaim</i>]				
[<i>déanann</i>][<i>mé</i>]			*!	
[<i>déanann</i>] <i>mé</i>	*!			
[[<i>déanann</i>] <i>mé</i>]				*!
[<i>déanaim</i>] <i>mé</i>				*!

- This derives both blocking of the analytic form by the synthetic form and complementarity, since the affixal synthetic form is more economical than either form with an enclitic subject pronoun.
- Input sets for sequences where no synthetic form is available do not contain a synthetic form.

18. *D’fhéadfadh+siad* – “They could”

<i>d’fhéadfadh-siad</i>	PARSE-INTO- ω	LEX-TO- ω	HEAD-LEX	NONREC
[<i>d’fhéadfadh siad</i>]		*!		
[<i>d’fhéadfadh</i>][<i>siad</i>]			*!	
[<i>d’fhéadfadh</i>] <i>siad</i>	*!			
☞ [[<i>d’fhéadfadh</i>] <i>siad</i>]				*

- Verbs with non-pronominal subjects again do not have a synthetic allomorph, since there is no pronominal element in the relevant prosodic word. This is why they do not show agreement, even when there is a synthetic form available for the person-number combination expressed by the subject:

19. *déarfadh daoine*, “people would say”:

<i>déarfadh daoine</i>	FAITH	PARSE- INTO- ω	LEX- TO- ω	HEAD- LEX	NONREC
☞ [<i>déarfadh</i>][<i>daoine</i>]					
[[<i>déarfadh</i>] <i>daoine</i>]			*!		*
[<i>déarfadh daoine</i>]			*!		
[<i>déarfaidís</i>][<i>daoine</i>]	*!				
[[<i>déarfaidís</i>] <i>daoine</i>]			*!		*
[<i>déarfaidís daoine</i>]			*!		

- Potential parallel to French preposition-article portmanteaux (Pranka 1983, Zwicky 1987), Portuguese preposition-demonstrative portmanteaux, *etc.*

Excursus:

- What about possessor agreement?

- The possessor agreement morpheme, which shares the odd characteristics of the verbal agreement morphemes, is a proclitic on the possessed noun, but demonstrably moves from postnominal position, where it can strand suffixes:

20. Tá **mo** cheann -sa liath le bliain is ní le críonnacht
 be 1sg head-emph gray with years and not with wisdom
 “My head is gray with age and not with wisdom.”

- But the clitic in this case can jump over intervening adjectives, which are independent prosodic words:

21. Tá sé le sonrú agam ar **mo** iPod beag féin
 be 3sg with notice at.1sg on 1sg iPod little refl
 “I’ve noticed it on my own little iPod.”


- The possessor is apparently out of the relevant prosodic domain for agreement.
- Legendre (2000, 2003) on phrasal affixes:
- Constraint ALIGN L, [GEN] ϕ provides prosodically motivated placement of a phrasal clitic.

22. *blog+mo* “my blog”

<i>blog mo</i>	ALIGN L, [GEN] ϕ .	PARSE- INTO- ω	LEX- TO- ω	HEAD- LEX	NONREC
([blog mo])	*!		*		
([mo bhlog])			*!		
ϕ ([mo[bhlog]])					*
(mo[bhlog])		*!			
([blog]mo)	*!	*			
([blog])(mo)		*!			
([blog])([mo])				*!	

- The constraint $*\phi$ prevents extra p-phrase boundaries from providing an edge to attach to (stamping out fires):

23. *iPod+beag+mo* “my little iPod”

	ALIGN L, [GEN] ϕ .	PARSE- INTO- ω	LEX- TO- ω	HEAD- LEX	NONREC	$*\phi$
([mo[iPod]beag])			*!		*	*
ϕ ([mo[iPod]][beag])					*	*
([iPod][[beag]mo])	*!					*
([iPod][beag])(mo)		*				**!
([iPod])([mo][beag])					*	**!
(mo[iPod][beag])		*!				*
([mo][iPod][beag])				*!		*

- So when possessor agreement is considered, the phonological phrase, rather than the prosodic word, seems like the relevant domain.
- This is much more like Ackema & Neeleman (2003)'s account. Does this mean maybe the phrase and not the word is the relevant environment in all cases? It'll take more research to tell.

Bibliography:

- Ackema, Peter, and Ad Neeleman (2003). "Context-Sensitive Spell-out." *Natural Language and Linguistic Theory* 21: 681-735.
- Acquaviva, Paolo (1999). "Allomorphy and morphosyntax in Irish prepositional inflection." In *University of Venice working papers in linguistics, volume 9*. University of Venice Department of Linguistics.
- Adger, David (2000). "Feature Checking Under Adjacency and VSO Clause Structure." in R. Borsley and J. Kornfilt (eds.), *The Nature and Function of Syntactic Categories*. San Diego: Academic Press; 79-100.
- Anderson, Stephen (2005). *Aspects of the Theory of Clitics*. Oxford University Press.
- Aoun, Joseph, Elabbas Benmamoun, and Dominique Sportiche (1994). "Agreement, word order, and conjunction in some varieties of Arabic." *Linguistic Inquiry* 25:195-220
- Baker, Mark C. (1988). *Incorporation: A theory of grammatical function changing*. Chicago, IL: University of Chicago Press.
- Bobaljik, Jonathan David (2007). "Where's ϕ ? Agreement as a post-syntactic operation." In David Adger, Susana Béjar, and Daniel Harbour, eds. *Phi-Theory: Phi features across interfaces and modules*, Oxford University Press.
- Booij, Geert (1996). "Cliticization as prosodic integration: The case of Dutch." *The Linguistic Review* 13:219-242.
- Brennan, Jonathan (2007). "Irish Prepositions: Agreement and Impoverishment." in Charles Chang & Hannah Haynie (eds.) *Proceedings of the 26th annual West Coast Conference on Formal Linguistics*. Cascadilla Proceedings Project.
- Chomsky, Noam (1972). "Some empirical issues in the theory of transformational grammar." In Paul Stanley Peters (ed.), *Goals of linguistic theory*. 63-130. Englewood Cliffs: Prentice-Hall Inc.
- Chung, Sandra and James McCloskey (1987). "Government, Barriers, and Small Clauses in Modern Irish." *Linguistic Inquiry* 18(2): 173-238.
- Chung, Sandra, William A. Ladusaw, and James McCloskey (1995). "Sluicing and Logical Form," *Natural Language Semantics* 3, 239-282L
- Dalton, Martha and Ailbhe Ní Chasaide (2003). "Modelling intonation in three Irish dialects." In *Proceedings of the XVth International Congress of Phonetic Sciences*, Barcelona .
- Doron, Edit (1988). "On the complementarity of subject and subject-verb agreement." In M. Barlow and C. A. Ferguson (eds.) *Agreement in natural language*, 201-218. Stanford: CSLI Publications.
- Dowd, Andrew (2002). "Closest Conjunct Agreement and Resolution in Modern Irish and Hindi." ms. University of California, Santa Cruz.
- Duffield, Nigel (1996). *Particles and Projections in Irish Syntax*. Dordrecht: Kluwer Academic Publishers Group.
- Fox, Danny, and David Pesetsky (2005). "Cyclic Linearization of Syntactic Structure", *Theoretical Linguistics* 31.1-2 (Special Issue on Object Shift). pp. 1-46.
- Greenberg, Joseph H. (1966). *Language universals, with special reference to feature hierarchies*. The Hague: Mouton.
- Guilfoyle, Eithne (1990). *Functional Categories and Phrase Structure Parameters*. Doctoral Dissertation, McGill University.
- Halpern, Aaron (1995). *On the placement and Morphology of Clitics*. Stanford:CSLI Publications.
- Henderson, Brent (2006). "Multiple Agreement, Concord and Case Checking in Bantu." in Olaoba F. Arasanyin and Michael A. Pemberton (eds.) *Selected Proceedings of the 36th Annual Conference on African Linguistics: Shifting the Center of Africanism in Language Politics and Economic Globalization*. Somerville, MA: Cascadilla Proceedings Project.

- Hendrick, Randall (2000). "Celtic Initials." in A. Carnie and E. Guilfoyle (eds.) *The Syntax of Verb-Initial Languages*. Oxford: Oxford University Press; 13-37.
- Ishihara, Shinichiro (2007). "Major phrase, focus intonation and multiple spellout." *The Linguistic Review* 24, 137–167
- Ito, Junko, and Armin Mester (2007). "The onset of the prosodic word." In *Phonological Argumentation: Essays on Evidence and Motivation*, ed. Steve Parker. London: Equinox.
- Ito, Junko, and Armin Mester (in prep.) "The extended prosodic word." ms. UC Santa Cruz.
- Jaeggli, Osvaldo and Ken Safir (1989). *The Null Subject Parameter*. Dordrecht: Kluwer Academic Publishers.
- Johannessen, J. (1998). *Coordination*. Oxford: Oxford University Press.
- Joitteau, Mélanie, and Milan Rezac (2006). "Deriving the Complementarity Effect: Relativized minimality in Breton agreement." *Lingua* 116:11, 1915-1945.
- Kiparsky, Paul (2003). "Blocking and periphrasis in inflectional paradigms." MMM4, Catania. *Yearbook of Morphology 2004*, 113-135, 2005. Dordrecht: Springer.
- Koontz-Garboden, Andrew (2003). "Spanish progressive aspect variation in stochastic OT." In Tara Sanchez and Uri Horesh (eds). *Selected papers from NWAV-31*. Penn Working Papers in Linguistics 9.2.
- Legate, Julie Anne (1999). "The Morphosyntax of Irish Agreement." In Karlos Arregi, Benjamin Bruening, Cornelia Krause, and Vivian Lin (eds), *MITWPL 33: Papers on Morphology and Syntax, Cycle One*. Cambridge, MA: MITWPL.
- Legendre, Geraldine (2000). "Positioning Romanian Verbal Clitics at PF: An Optimality-Theoretic Analysis." In B. Gerlach and J. Grijzenhout, (eds.). *Clitics from Different Perspectives*. Johns Benjamins. 219-254.
- Legendre, Geraldine (2003) "What are Clitics? Evidence from Balkan Languages." *Phonological Studies (Journal of the Phonological Society of Japan)*. Vol. 6: 89-96.
- Lima, Ananda (2005). "Predicate Inversion and Agreement Alternations in Brazilian Portuguese." Australian Linguistics Society Annual Conference 2005, Monash University, Melbourne.
- Marten, Lutz (2000). "Agreement with Conjoined Noun Phrases in Swahili." *Afrikanistische Arbeitspapiere* 64, Swahili Forum VII: 75-96.
- Mascaró, Joan (1996). "External allomorphy as emergence of the unmarked." In *Current Trends in Phonology: Models and Methods*, Jacques Durand and Bernard Laks (eds.), 473–483. Salford, Manchester:European Studies Research Institute, University of Salford.
- Mayerthaler, Willi (1988). *Morphological naturalness* [English translation of *Morphologische Natürlichkeit* by Janice Seidler]. Ann Arbor, Michigan: Karoma.
- McCloskey, James (1986). "Inflection and conjunction in Modern Irish." *Natural Language & Linguistic Theory* 4:245–281.
- McCloskey, James (1996a). "Subjects and Subject Positions in Irish." In Robert D. Borsley & Ian Roberts (eds), *The Syntax of the Celtic Languages*. Cambridge: Cambridge University Press, pp. 241-283.
- McCloskey, James (1996b). "On the Scope of Verb Movement in Modern Irish." *Natural Language and Linguistic Theory* 14: 143-189.
- McCloskey, James (2002). "Resumption, successive cyclicity, and the locality of operations." In Epstein, S. (ed.), *Derivation and Explanation in the Minimalist program*, pages 184–226. Oxford: Blackwell.
- McCloskey, James (2006). "The Morphosyntax of Agreement in Irish." ms. UC Santa Cruz.
- McCloskey, James, and Kenneth Hale (1984). "On the syntax of person-number inflection in Modern Irish." *Natural Language & Linguistic Theory* 1:487–533.
- Meinschaefer, Judith (2005). "The Prosodic Domain of Italian *Troncamento* is not the Clitic Group." Konstanz: University of Konstanz.
- Merchant, Jason (2001). *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford University Press: Oxford.
- Merchant, Jason (2004). "Fragments and Ellipsis." *Linguistics and Philosophy* 27.6:661-738.
- Merchant, Jason (2008). "Variable island repair under ellipsis." In Kyle Johnson (ed.), *Topics in ellipsis*, 132-153. Cambridge University Press: Cambridge.
- O'Brien, Jeremy (2007). "Lexical Conservatism in Irish Prepositions." ms. UC Santa Cruz.
- Ó Siadhail, Mícheál (1989) *Modern Irish: Grammatical structure and dialectal variation*. Cambridge: Cambridge University Press.

- Poser, W. (1992). "Blocking of Phrasal Constructions by Lexical Items." In I. Sag and A. Szabolsci (eds.), *Lexical Matters*, 111--130. Stanford: CSLI.
- Pranka, Paula (1983). *Syntax and Word Formation*. Doctoral dissertation, MIT.
- Ross, John (1969). "Guess who?" In Binnick et al. (eds.), *Proceedings of CLS 5*:252-286.
- Sadler, Louisa (2003). "Coordination and Asymmetric Agreement in Welsh." In Miram Butt and Tracy Holloway King (eds) *Nominals: Inside and Out*, CSLI Publications, pp85-118.
- Selkirk, Elisabeth O. (1995). "The prosodic structure of function words." In *Papers in Optimality Theory*, eds. Jill Beckman, Laura Walsh Dickey and Suzanne Urbanczyk. Amherst, MA: GLSA. 439-470.
- Selkirk, Elisabeth, and Angelika Kratzer (2007). "Phase theory and prosodic spellout: The case of verbs." *The Linguistic Review* 24, 93-135.
- Selkirk, Elisabeth and Tong Shen (1990). "Prosodic Domains in Shanghai Chinese." in Sharon Inkelas and Draga Zec (eds.), *The Phonology-Syntax Connection*, University of Chicago Press, Chicago; 313-337.
- Sells, Peter (1997). Positional constraints and faithfulness in morphology. In *Harvard studies in korean linguistics*, ed. S. Kuno et al., volume 7, 488-503. Cambridge, MA: Harvard University.
- Sells, Peter (1998). Optimality and economy in Japanese and Korean morphosyntax. In *Japanese/Korean Linguistics*, ed. Noriko Akatsuka and et al, volume 7, 499-514. Stanford Linguistics Association, Stanford, CA: CSLI.
- Steriade, Donca (1999). "Lexical conservatism in French adjectival liaison." In *Proceedings of the 25th Linguistic Colloquium on the Romance Languages*, M. Authier, B. Bullock, and L. Reed, (eds). 243-270. Amsterdam: John Benjamins.
- Stump, Gregory (2001). *Inflectional morphology. A paradigm structure approach*. Cambridge: CUP.
- Teeple, David (2007). "Lexical Selection and Strong Parallelism." ms. UC Santa Cruz.
- Villavicencio, Aline, Louisa Sadler, and Doug Arnold (2005). "An HPSG Account of Closest Conjunct Agreement in NP Coordination in Portuguese." *Proceedings of the HPSG05 Conference*, CSLI publications.
- Zwicky, Arnold (1987). "French prepositions: no peeking." *Phonology Yearbook* 4:211-227.