Finding research topics

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1 General Introduction

The following discussion is based on my seminar that I taught at the University of Georgia in Spring 2007, itself being inspired by my graduate education at UMass, Amherst. It lays out how I have been trying to find research topics. Before moving on:

(1) Building your publication profile during your graduate years is a key to success.

(2) Qualifying papers (or generals papers) should NOT be your goals. You should think about presenting and/or publishing them.[1]

(3) Try to get one journal publication out before you go on a job market. Practice dealing with reviews with your advisor, because they know how. It would be extremely stressful to do so alone, and you might as well have a practice with an expert.

(4) Present at conferences, build your social network, and build your CV with conference proceedings papers.

(5) Find a good fit for your good projects: try to evaluate the quality of your work objectively. You don't alway need to produce top-notch work. If you find something interesting to say about a particular language, and if that idea is not ground-shaking for the whole linguistic community, there are smaller conferences with more focused interests. Don't undermine the value of your work, but think about how to get the best out of your ideas.

(6) With that said, going to too many conferences is time consuming and exhausting. Journal publications are ultimately more important than conference proceedings papers.

2 Theory

2.1 Propose a fundamentally new theory

Proposing an entirely new theory, say, something like Optimality Theory (Prince & Smolensky, 1993/2004) or Autosegmental Theory (Goldsmith, 1976). It may be risky to try to do this in a short paper. You may try in your dissertation if you like...

[1] When I was a graduate student, I chose conferences that publish proceedings.

2.2 Applying a new theory to new data

This strategy is more realistic. When a new theory is proposed, its utility is not usually fully discussed. Apply that new theory to the data set you are familiar with. Does that require some revisions or additions to a proposed theory? This line of research was very common, for example, when OT was first proposed (Prince & Smolensky, 1993/2004). Also, when I started studying linguistics, sympathy theory (McCarthy, 1999) was really popular, and there were a lot of papers applying sympathy theory to new sets of data (see footnote 5 of McCarthy, 1999).

Watch out though—you do not want to just translate an old analysis to a new analysis. **Make sure to compare the old and new theory explicitly and say why new theory is better**.

2.3 Extending a new theory

Similar to the above, but you propose to add an additional mechanism to an original proposal. Again watch out when you do this—adding a mechanism means that you make that theory more powerful.[2] Make sure that your modification does not overgenerate.

2.4 Eliminating a sub-mechanism

The opposite of above. Think whether some mechanism overgenerates. Try to eliminate that from the theory and see what happens. This kind of project usually needs to be based on careful cross-linguistic consideration. Examples: McCarthy (2003) proposed to get rid of gradient constraints; Flemming (2005) attempts to get rid of distinctive features.

This sort of research is particularly important when a "paradigm shift" occurs. For example, when Optimality Theory was proposed, some have questioned the necessity of Autosegmental representations (Bakovic, 2000; Krämer, 2003). Also, Padgett argued that feature geometry becomes unnecessary within OT (Padgett, 2002).

2.5 Think about what is primary

In the original formulation of metrical phonology (Liberman & Prince, 1977), metrical grids were subsidiary and trees were primary. Prince (1983) said grids are primary.

2.6 Combing two theories

For example, combing a rule-based theory with a constraint based theory (McCarthy, 2007; Wilson, 2000) or combining Lexical Phonology with OT (Kiparsky, 2002). Watch out when you do this. By combining two theories you run the risk of producing a very powerful mechanism.

2.7 Formalizing a loose end

There is some notion that everybody takes for granted, but has never bothered to formalize. Try to formalize it with explicit details. Your proposal is likely to have problems, but it's going to build a

[2]Making your theory powerful is not necessarily a good thing—you want to make your theory as restrictive as possible.

good foundation for future work. Examples: Kurisu's Morpheme-Real constraint (Kurisu, 2001).

2.8 Trimming a theory

When a new theory comes out, an old theory may become unnecessary. For example, when OT came into picture, several ruled based mechanism (underspecification, autosegmental spreading, feature geometry, extrametricality) were called into question.

3 Data oriented research

3.1 Resolving a debate with a new data

When Theory X and Theory Y compete, it is always a good idea to bring in new evidence for one theory or the other. Bringing in **novel data that you found (via fieldwork or corpus analysis) is a very good idea**. I may be biased, but it is always a good idea to include new data in your paper.

3.2 Doing an experiment to resolve a debate

Actually doing an experiment often helps to resolve a theoretical debate. Be careful though—what your experiments will tell you is about performance, so how do they bear on theories of competence?

3.3 Testing phonetic grounding of phonological patterns

There are very many hypotheses about phonetic grounding of phonological patterns. They remain to be tested. Find articles on phonetically-driven phonology (Hayes, Kirchner, & Steriade, 2004 is probably a good place to start). See if you can plan an experiment to actually test the hypothesis.

3.4 Taking theory really seriously and test its phonetic consequence

What does your theory predict about actual phonetic implementation? Can you test it? (Broselow, Chen, & Huffman, 1997; Kawahara & Shinya, 2008; Maddieson, 1993)

3.5 Finding a cross-linguistically common pattern in your favorite language

For example, consonant co-occurrent patterns are very common in world languages, and in fact I found the same in Japanese (Kawahara, Ono, & Sudo, 2006).

4 General Tips

4.1 Talk to your friends and advisors

I come up with research topics most often when I talk to my friends and advisors.

4.2 Read footnotes

As McCarthy says (McCarthy, 2008, p.163), footnotes are a great place to find paper topics.

4.3 Get irritated, but don't tell your personal history

Many projects start when you disagree with what somebody else wrote. That is fine. But make sure to have a better theory yourself. When you write up your paper, make sure to present your theory first and compare it with the theory that you disagree with (not the other way around). Never tell your personal history in the paper; Don't say "I found Theory X implausible, so here's my idea". Instead, say "Here's my theory, and here's why it is better than Theory X" (By the way, call Theory X rather than the author's name—depersonalization is an important technique when it comes to criticizing other theories.)

References

Bakovic, E.(2000). *Harmony, dominance, and control*. Doctoral dissertation, Rutgers University.

Broselow, E., Chen, S.-I., & Huffman, M.(1997). Syllable weight: Convergence of phonology and phonetics. *Phonology*, *14*, 47-82.

Flemming, E.(2005). Deriving natural classes in phonology. *Lingua, 115*, 287-309.

Goldsmith, J.(1976). *Autosegmental phonology*. Doctoral dissertation, MIT. (Published by Garland Press, New York , 1979)

Hayes, B., Kirchner, R., & Steriade, D.(2004). *Phonetically based phonology*. Cambridge: Cambridge University Press. ((eds.))

Kawahara, S., Ono, H., & Sudo, K. (2006). Consonant co-occurrence restrictions in Yamato Japanese. In T. Vance & K. Jones (Eds.), *Japanese/Korean linguistics 14* (Vol. 14, p. 27-38). Stanford: CSLI.

Kawahara, S., & Shinya, T. (2008). The intonation of gapping and coordination in Japanese: Evidence for intonational phrase and utterance. *Phonetica, 65*(1-2), 62-105.

Kiparsky, P.(2002). Syllables and moras in Arabic. In C. Féry & R. v. d. Vijver (Eds.), *The optimal syllable.* Cambridge: Cambridge University Press.

Krämer, M. (2003). *Vowel harmony and correspondence theory*. Berlin and New York: Mouton de Gruyter.

Kurisu, K. (2001). *The phonology of morpheme realization*. Doctoral dissertation, University of Santa Cruz.

Liberman, M., & Prince, A.(1977). On stress and linguistic rhythm. *Linguistic Inquiry, 8*, 249-336.

Maddieson, I.(1993). Splitting the mora. *UCLA Working Papers in Phonetics*, *83*, 9-18.

McCarthy, J. J.(1999). Sympathy and phonological opacity. *Phonology*, *16*, 331-399.

McCarthy, J. J.(2003). OT constraints are categorical. *Phonology*, *20*(1), 75-138.

McCarthy, J. J.(2007). *Hidden generalizations: Phonological opacity in Optimality Theory*. London: Equinox Publishing.

McCarthy, J. J.(2008). *Doing Optimality Theory*. Oxford: Blackwell-Weiley.

Padgett, J.(2002). On the characterization of feature classes in phonology. *Language*, *78.1*, 81-110.

Prince, A.(1983). Relating to the grid. *Linguistic Inquiry*, *14*(1), 19-100.

Prince, A., & Smolensky, P.(1993/2004). *Optimality Theory: Constraint interaction in generative grammar*. Malden and Oxford: Blackwell.

Wilson, C. (2000). *Targeted constraints: An approach to contextual neutralization in Optimality Theory*. Doctoral dissertation, Johns Hopkins University.