

The Road Ahead

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Note to the convenors: I was unsuccessful in focusing on just one question, so I attempted to discuss how the questions related to one another. (You'll see that I have more to say about "syntax at the interface", so if you need to put me into a category, slot me in there.) The overarching theme is a call for sustained & systemic collaboration with the aim of address three key problems:

- (i) **the empirical problem:** use data sets from a wider range of languages. This is especially urgent at a time when close to 2/3 of the world's extant 6,000 languages are at risk of not being spoken in the next 30 years.
- (ii) **the conceptual problem:** step away from traditional "domains" (e.g. phonetics, phonology, morphology, syntax, semantics, pragmatics) towards a more integrated view of natural language that places interface issues at the core of syntactic research.
- (iii) **the methodological problem:** develop & deploy diagnostic tools (and vocabulary) that cuts across the qualitative/quantitative divide that allows syntacticians to contribute to quantitative research in a meaningful way.

1. Strengths and weaknesses

1A What have been the main strengths of generative-syntactic research, with particular emphasis on the 21st century, and what do you think is wrong with the field of generative syntax today?

• **Strengths:** The consolidation of a battery of robust syntactic diagnostics that can be applied to any natural language to yield insight about local and non-local dependency relations, and which tease apart linear precedence relations from immediate dominance relations. The "displacement" metaphor used to model non-local dependency relations is especially useful, as it forces analysts to attend to mapping between the following types of formal relations:

- (i) thematic relations/event structure (e.g. 1st phase syntax);
- (ii) case/agreement (e.g. Agree);
- (iii) A-type displacement (e.g. valency reduction, valency expansion);
- (iv) A'-type displacement of the class wh-movement type;
- (v) information-theoretic displacement; "discourse configurational" displacement

Parallel to these developments, there is an emerging consensus concerning the organization of the syntactic spine, especially as it relates to the functional categories associated with the extended projections of N and V.

Both research threads have established a rich research program on syntactic micro- and macro-parametric variation.

- **Weaknesses:** First, there remains an Indo-European bias in the field, which privileges certain data sets as being inherently more theoretically interesting than others. Second, arcane technical details (e.g. feature-checking, EPP-features, Move, Agree, Internal Merge, External Merge, derivation by phase, etc.) means that the deeper insights of formal analysis are inaccessible to researchers working in syntax-related areas.

1B How do you think the field could/should go about addressing its current problems?

The inaccessibility and narrowness of current syntactic work can be remedied by developing long-term interdisciplinary collaborative research teams that leverage the insights of formal syntactic theorizing. This is already done in some quarters, but more of this needs to happen. Concretely, it needs to be integrated into graduate training programs so that junior scholars are socialized at the outset to take a broader view of the field.

As for the Indo-European bias, this requires a more systematic approach to sampling than is currently in vogue amongst formalists. This can be countered via socialization of graduate students; e.g. normalize field methods training so that every linguist conducts research on at least one “small” language, however that is defined. At a moment when 2/3 of the world’s 6,000 or so languages are vulnerable, it is imperative that the entire field address this challenge head-on.

2. Central unresolved theoretical issues

2A What are the major open questions in the theory of generative syntax today?

Two core theoretical issues are:

- (i) The formal basis of recursive Merge.
(In my view, this is related to the partition function).
- (ii) The formal basis of the displacement property.
(In my view, the “feature-checking” approach, though technically adequate, is a conceptual dead-end.)

2B What is or ought (not) to be in the field's common theoretical core?

The field's common theoretical core is how to model dependency relations: this connects to pretty much everything thing we do when we "do syntax", be it local or non-local dependency relations. All formal syntactic analyses are, implicitly or explicitly, an attempt to state the conditions under which "X depends on Y".

3. Syntax in relation to other fields of linguistic theory

3A. What are the main success stories and bottlenecks in the interaction between syntax and the other core-theoretical subdisciplines (semantics, phonology, morphology)? [I have have added syntax-pragmatics interaction.] A common bottleneck in all the "interface" areas is the development of rich theoretical vocabulary in the relevant sub-domains. This creates both a conceptual and methodological problem, as researchers must choose the vocabulary of one domain to discuss problems that, by definition, span two (or more) domains.

- **Syntax-semantics interaction:** Success stories include rich & lively debates concerning the syntax & semantics of the quantifier-variable relation (of which wh-movement is a special case), binding, quantificational force, definiteness, modality, tense, aspect, clause-typing. Unfortunately, these themes, and many others, which sit at the syntax-semantics seam are increasingly being investigated in a one-sided fashion, with semanticists ignoring basic syntactic generalizations, and conversely syntacticians ignoring basic semantic generalizations.

Anecdotally, I can report how this is playing out specific case, namely the analysis of bound variable anaphora, which is currently claimed by (some) semanticists as being a purely semantic in nature. However, analyses that advance such claims typically consider only a subset of the relevant facts, and are narrowly focused on English-type anaphoric systems. This is an area where sustained and systematic collaboration between syntacticians and semanticists, across a wide range of languages, would be of benefit to the field as a whole.

Another area where I have encountered a blindspot in the field relate to what would traditionally be called "lexical semantics". It is becoming clear that the Root lexicon is organized differently in different languages, and that this is not countenanced in most theories of the lexicon. (To my knowledge, other than myself, the only person who has explicitly commented on this conundrum, as it relates to formal syntactic analysis is M. Polinsky.) Note that this also touches on issues that also under the purview of morphology-syntax interaction, especially as it is defined in Distributed Morphology.

- **Syntax-phonology interaction:** Phase-based analyses have created a renaissance in this area, as exemplified by the work of Wojdak (based on data from Wakashan), Kahnemuyipour (based on data from Persian), and Pittman & Compton (based on data from Inuit). Here the bottleneck lies in the fact that syntacticians and phonologists don't have much truck with each other, making comparison of analyses difficult to impossible.

Anecdotally, I can report on this relative to how tone continue to fail to be integrated into syntactic analyses. This failing lies squarely on the shoulder of syntacticians who regularly publish research on tone languages without marking tone, thereby making their data unusable by other researchers. This could easily be solved by setting a “gold standard” that would encourage academic publishers to require tone-marking in all peer-reviewed papers (e.g. journal publications, book chapters, books). An illustration of how important this is can be taken Nata, an endangered and underdescribed eastern Bantu language that the UBC Nata Working Group (NaWoG) has been researching. We have found that Nata nouns and verbs deployed the same three tone patterns, but whereas the tone contrasts are lexically conditioned for nouns, they are syntactically conditioned for verbs. In addition, deverbal nouns exploit only 2 of the 3 possible tone patterns. Such a finding has important consequences any attempt to model the syntax-phonology interface, but if an analyst doesn’t mark tone, such a generalization will never emerge.

• ***Syntax-morphology interaction:*** Great successes in this area include Baker’s legacy on incorporation and polysynthesis, which has the virtue of being provocative. Although in many important ways, Baker’s claims are “wrong”, they have proved to be wrong in a most instructive fashion, and have lead to a more sophisticated conceptualization of morphology, as is evident in the models of Distributed Morphology and Nanosyntax.

A serious bottleneck remains however, in that there is a terminological divide that is steep and theory-driven: what is couched as a “morpho-syntactic” interface problem in one model is framed as a “morpho-phonology” interface problem in another model. Since much of the really interesting data is from languages whose properties are not well investigated (e.g. the languages of the Americas, languages of Sub-Saharan Africa, etc.) this means that a lot of basic description and analysis needs to be done before we can move onto macro-level analysis of larger-scale systemic properties. Solving this requires a concerted effort to develop an analytic toolkit that can be deployed across a wide range of languages in a systematic fashion. The latter is akin to how the McCarthur Foundation goes about identifying “hotspots” relative to specific ecological tipping points. A similar approach could be used for language research: we now know enough about the broad surface typology to natural languages (thanks to the Greenbergian legacy) to be able to undertake a “deep analysis” on the basis of a carefully selected sample. This requires in-depth analysis both within and across language families. (This is something that we are moving towards at UBC in the context of something that I call the “Human Language Project”.)

Syntax-pragmatics interaction: Although this was not included in the original list of interface areas, I am adding it in because it is clear that the phrasal syntax of “discourse-configurational” is conditioned by information-theoretic contrasts relating to topic, focus, and common ground management. There is a nascent literature in this area, and I anticipate that, as our theoretical tools get sharper, this will be a growth area in the future.

3B. What are the main success stories and bottlenecks in the interaction between syntax and the experimental subdisciplines (language acquisition, sentence processing, neurolinguistics), and how can syntax be more useful to those? [Note to conveners: Here I would also include multi-modal speech analysis, which is a burgeoning area.]

Relative to the experimental subdisciplines, overall the main success stories relate to developing testable hypotheses about how formal properties are acquired, perceived, and processed. The main bottleneck relates to the fact that it is rare that a single person has the kind of training that allows them to integrate formal theorizing with experimental protocols. So this means that such work must be done in collaboration. Another drawback is that experimental lab work is restricted to a college population, meaning that “small” languages spoken in remote areas simply fall off the cliff. (In fact, this was the topic of Sandy Chung’s LSA presidential address a few years ago.)

Anecdotally, my own work on speech-gesture integration (as a subspecies of multimodal signal processing) has shown me that developing such a collaboration takes a lot of time, and requires a long-term commitment. If there were a way to facilitate this, this would be great for the field as a whole.

4. The road ahead

4A. What do you see as the biggest challenges for generative-syntactic research in the coming years/decades?

- (i) terminological parochialism
If we can’t explain to non-syntacticians why our work is important and relevant to them, then the fruits of our research will die on the vine.
- (ii) data-theory conundrum
Over-investment of intellectual resources on a small number of well-studied languages and/or a small number of narrowly defined theoretical problems

4B. *In which direction(s) would you like to see the field proceed, and where would you like the field to be in ten or twenty year’s time?*

In 20 years time, I would be happy if we have:

- (i) more even-handed empirical coverage
(i.e. larger and more comprehensive **in-depth** sample of languages)
- (ii) a truly “minimal syntax”
(i.e., syntax should reduce to the application of (recursive) Merge.)