Language as Process and Practice:

developing a grammar for interaction

Eleni Gregoromichelaki & Ruth Kempson - King's College London

eleni.gregor@kcl.ac.uk & ruth.kempson@kcl.ac.uk

Informal conversation is full of "fragmentary" utterances, with seamless shifts between speaker and hearer roles:

(1) [Corpus of Spoken Greek, Institute of Modern Greek Studies]
Άρτεμη: Πού έγιν' αυτό?
          Where did this happen?
Χρυσή: Ναυαρίνο.
          Navarino
Χρυσή: το οποίο ήτανε::: παγο[δρόμιο. εντε]λώς.
          which was   ice[-ring complete]ly.
Φωτεινή: [Παγοδρόμιο.]
                            [Ice-ring]

In conversation, any linguistic dependency can be distributed across more than one participant, the strings, contents, and speech acts performed emerging incrementally and without any one of the participants having envisaged in advance the result of the interaction. Most standard grammar formalisms have problems accounting for such data because the concept of 'constituency' and 'syntactic domains' embodied in such formalisms is entirely independent of performance considerations. This prevents a natural explanation of how suspended and resumed dependencies can be licensed online while speakers/hearers not only construct and process input but also predict upcoming continuations at various levels.

The problem appears more acutely in Greek. Word order in Greek is relatively free, adjusted according to processing considerations (see e.g. Lascaratou 1994). In addition, verb words include a lot of information like anaphoric subjects, tense/mood, and anaphoric objects (clitics) while NPs have case morphemes which indicate semantic information. As a result, the syntactic practices of Greek allow much greater flexibility in the expression of semantic contents and the performance of context-dependent speech acts. For example, in Greek, even certain dependencies licensed across ``island'' domains (Philippaki-Warburton & Spyropoulos 2002; Kotzoglou 2005; Spyropoulos & Stamatogiannis 2011), can be spread across two speakers with context resetting (e.g. switching of indexicals) accordingly:

(2)
A: Pjanu maθiti
    whose pupil-GEN
B: paraponeθike   i mitera   stin diefthindria mu?
    complained-PAST.3SG   the mother-NOM   to. headmistress-ACC my
      [*Which pupil did the mother of ___ complain to my headmistress?']

(3)
A: Pjanu ipes …
    whose-GEN said.you

B: oti   m'enochlise   o aderfos?
  that   me annoyed-PAST.3SG   the brother-NOM
     'The brother of whom did you say that (he) bothered you?'

In addition, non-sentential utterances in Greek can perform speech acts with subsentential and subpropositional means (e.g. 'clarification' in (4)) due to the presence of the case morphemes:

(4) [A is contemplating the space under the mirror while re-arranging the furniture and B brings her a chair]
A to B: tin   karekla   tis   mamas?   /   *i   karekla   tis   mamas?   Ise   treli?
         'theACC chairACC of mum's   / *theNOM chairNOM of mum's.   Are you crazy?'

Conversational Analysis accounts are also unable to account for the whole range of such data since they rely on a notion of Transition-Relevant-Places (TRP), on the basis of the grammar of English, for the explication of the normativity that underlies the significance attributed to such switches. However, in Greek, perhaps more obviously than has been observed in English, interruptions, overlaps, continuations, etc. do not necessarily occur close to the boundaries of what have been characterised as Transition-Relevant-Places (TRP) on the basis of English. Speakers intervene to, e.g., ask for clarification while the other speaker is still constructing their verbal contribution:

(5) (9. Chalari, 2005)

I: Stin Evia itan orea
  In Evia was nice
      'in Evia it was nice'
T: Pigename [poli sihna]
  went-we   [very often]
      'we went very often'
M: [Imun ke ego?]
         [was and I?]
         ['I was with you too?']

All this shows that grammatical licensing and semantic processing is performed incrementally subsententially online with the interlocutors evaluating their own and the other's contributions according to contextual parameters that can get reset at least at each word utterance event (Gregoromichelaki, to appear). Therefore, these contextual dependencies and resettings, which affect not only linguistic content but also linguistic form, need to be represented within the grammar formalism so that it is possible to model how each interlocutor's contribution is subsententially integrated and steering predictions of upcoming linguistic and non-linguistic contributions.

On this basis, we will argue that explaining this type of human behaviour necessitates viewing natural language as a type of "skill" employing routinised domain-general mechanisms for incremental and dynamic interaction with others and the environment. We will provide a sketch of Dynamic Syntax in which underspecification and incremental time-relative update of meanings and utterances constitute the sole concept of "syntax", and the basis for modelling core phenomena of discontinuous dependencies, eliminating the need to posit encapsulated context-blind and abstract linguistic mechanisms as an explanation for human linguistic knowledge. Confirmation of this perspective lies in the demonstration of how the interactive effects of conversation follow immediately, without any need to invoke higher-order inference. Accordingly, we will propose that

language needs to be seen as an embodied practice, directly inducing real-time processes of context-relative interaction with others, a conclusion relevant to the ongoing debates in cognitive psychology about representations, processes and interactivism (see e.g. Bickhard 2009, Anderson 2014).

References

Anderson, Michael L. , 2014. *After phrenology: Neural reuse and the interactive brain*. MIT Press.

Bickhard, Mark H. "The interactivist model." *Synthese* 166.3 (2009): 547-591.

Chalari, A. (2005) "Why Greeks talk at the same time all together?" The 2nd LSE PhD Symposium on Modern Greece: "Current Social Science Research on Greece", Hellenic Observatory – London School of Economics, (June 10, 2005)

Kotzoglou, G. 2005. *Wh-extraction and Locality in Greek*. Ph.D Thesis, University of Reading.

Lascaratou, Chryssoula. 1994. *Performance Principles in Word Order Variation*. Athens: Parousia Journal Monograph Series 29.

Philippaki-Warburton, Irene, and Vassilios Spyropoulos. "'Subject' and EPP in Greek: The discontinuous subject hypothesis." *Journal of Greek Linguistics* 2.1 (2002): 149-186.

Spyropoulos, Vasillios, and Nikolaos Stamatogiannis. (2011). "Subextraction from subjects in Greek: Things that you can thing and you can say." Handout from: Islands in Contemporary Linguistic Theory University of the Basque Country Vitoria-Gasteiz, 16-18 November 2011