

# The role of predictability in shaping human sound systems

## LabPhon 16 satellite workshop

Message-oriented accounts of phonetic and phonological variation propose that speakers expend resources in order to increase phonetic robustness when their intended message is unpredictable (e.g., Hall et al., 2016; see also Lindblom, 1990; Aylett & Turk, 2004; Stevens & Keyser, 2006). Within this general framework, *predictability* and *resource cost* are operationalized in diverse and sometimes imprecise ways. The goal of this workshop is to encourage discussion and idea exchange that lead to shared understandings of the concepts of *predictability* and *cost* in phonological research.

The workshop will be organized around two themed roundtables, which are each preceded by 15-minute talks that provide material for broader discussion of the theme. The first session addresses how predictability can be assessed, and the second session addresses how resource cost can be defined using explicit psychological, phonological, and physiological measures. Each theme involves a range of questions, and specific topics for the roundtable discussions will be chosen based on the submitted abstracts.

**Theme 1: Defining and measuring predictability.** How can phonological predictability be assessed? Some possibilities include: the in-context probability of a specific phonological unit or message, the uncertainty associated with incremental comprehension or production, and the contrastiveness of a unit in the phonological system. How do different measures lead to different quantifiable expectations about communicative behavior or phonological patterns? How can different measures of predictability be linked to specific mechanisms in speech production or perception, and how do these measures and mechanisms interact?

**Theme 2: Defining and measuring production cost.** Many communication-oriented accounts assume that speakers seek an efficient balance between communicative robustness and production cost, but production cost is often not quantified. What are ways of explicitly defining or measuring phonological resource cost? Some possibilities include: indices of cognitive load during production, planning costs or phonological/lexical competition in speech production models, usage of attentional or memory resources, articulatory coordination costs, and metabolic costs.

### Format and schedule

Abstracts are invited on research related to one of the themes. Abstracts may be up to 1000 words and should contain all key methodological details. About three abstracts per theme will be selected for oral presentations, and all accepted abstracts will be circulated in advance of the workshop. Each presenter is asked to prepare a 15-minute presentation (plus 5 minutes for questions and transition) in which they explicitly contextualize their research in the discussion topic. The presentations will be followed by a 40-minute roundtable discussion of the theme, with a break between sessions. The workshop may include a short poster session, depending on the number of submitted abstracts.

**Abstract submission deadline:** March 1, 2018

**Notifications of acceptance:** March 15, 2018

**Workshop program announced:** March 30, 2018

**Workshop date:** June 23, 2018 (main conference June 19–22)

**Location:** Universidade de Lisboa in Lisbon, Portugal

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