

Source–Filter Phonology — a Naturalist, Listener–Oriented Model

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The last decade has produced a wealth of linguistic studies on the role of speech perception in phonology. Thanks to recent advancements in speech analysis technology, phonologists have taken to heart the famous quote of Roman Jakobson's: "we speak in order to be heard in order to be understood". While perceptual considerations are nothing new to the functionalist framework of Natural Phonology (NP) (Stampe, 1972; Donegan and Stampe, 1979), to my knowledge there has not yet been an explicit, entirely listener–based approach within NP.

This talk presents an illustration of a listener–based model of phonology within Natural Linguistics. Borrowing a term from Fant (1960), I call this framework **Source–Filter Phonology**. In basic terms, the **Source** is the universal inventory of phonetic features, each of which is made up of the cues that listeners may use to perceive them. The **Filter** is the set of language (and speaker) specific specifications of the magnitudes of Source feature cues. The Filter is sensitive to the effects of both phonetic context and intrinsic subfeatural differences associated with different features (Donegan, 2002). The final component in the Filter is a set of Faithfulness constraints (different than those in OT) that are sensitive to the communicative task. These Faithfulness constraints analyze an utterance with respect to the communicative situation (i.e. grammar–external phenomena), performing necessary fortitions and licensing lenitions that do not exert too great a cost on the transmission of the speaker's message.