## Perceptual experiments and phonetic variation: Finding out what speakers don't know they know, and vice versa

*Nancy Niedzielski (Rice University)*

In this talk I present several studies from not only linguistics, but also psychology and sociology, each of which shed light on what types of cognitive abilities humans use in the perception of speech. As most speech perception researchers suggest, the multidimensional processes involved in perception tap into various types of information that range from acoustic, contextual, social, and psychological. However, we "know" such information in very different ways: we are overtly aware of some things, such as when we say "People who say X are Y," and additionally, hundreds of language attitudes studies show that often what we "know" in these cases is inaccurate. We are covertly aware of some things, such as when we react on, for instance, perceptual tests as if we have certain information, but claim no conscious knowledge of such information. And interestingly, we often know things based on very recent, and very brief stimuli. Thus, while some information is acquired developmentally early (such as "these acoustic events have some linguistic 'meaning'"), recent work in psychology suggests that such new and brief stimuli can create associations that are used in perception almost immediately, no matter what the age of the subject.

To suggest that speech perception is a complicated is hardly original: we know that humans do not merely transform acoustic information into linguistic information, but rather use all types of cognitive processes. Of course, we pay attention to our world, and we create and modify cognitive categories as a result of what we observe. However, we pay attention to a lot more than we think we do, and we integrate things very quickly, which means we know more than we think we know. But the converse is also true: often, we ignore information that could be used to create or modify categories; in other words, there must be motivations for integrating some, but not all, types of information. This presentation suggests ways in which research from a number of fields can be used to discover such motivations, and to further illuminate this complicated phenomenon.