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### **Intentionality in Speech: Implications for Computational Models**

The field of spoken language processing typically treats speech as classic stimulus-response behavior, hence there is strong interest in using the latest machine learning techniques (such as Deep Neural Networks) to estimate the assumed non-linear transforms. However, in reality, speech is not a static process - rather it is a sophisticated joint behavior resulting from actively managed dynamic coupling between speakers, listeners and their respective environmental contexts. Multiple layers of feedback control play a crucial role in maintaining the necessary communicative stability, and this means that there are significant dependencies that are overlooked in contemporary SLP approaches. This talk will address these issues in the wider context of intentional behavior, and will give an insight into the implications for computational models.

Prof. Moore has over 40 years' experience in Speech Technology R&D and, although an engineer by training, much of his research has been based on insights from human speech perception and production. As Head of the *UK Government's Speech Research Unit* from 1985 to 1999, he was responsible for the development of the *Aurix* range of speech technology products and the subsequent formation of *20/20 Speech Ltd.* Since 2004 he has been Professor of Spoken Language Processing at the *University of Sheffield*, and also holds Visiting Chairs at *Bristol Robotics Laboratory* and *University College London Psychology & Language Sciences*. He was President of the *European/International Speech Communication Association* from 1997 to 2001, General Chair for *INTERSPEECH-2009* and ISCA Distinguished Lecturer during 2014-15. Prof. Moore is the current Editor-in-Chief of *Computer Speech & Language* and he was recently awarded the 2016 LREC *Antonio Zampoli Prize* for "Outstanding Contributions to the Advancement of Language Resources & Language Technology Evaluation within Human Language Technologies".