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**Listener-oriented motor control: Comparing evidence from speech
and singing**

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Singing and speech make different use of the vocal tract but work in similar ways with respect to how sound production is controlled. A principle that they share is: output-oriented control. This mode of organization implies that the task of the motor system is defined in terms of the desired properties of the output sound, rather than in terms of motor processes. This claim is strongly supported by Johan Sundberg's experimental work on singing and by 'compensatory articulation' and 'hyper-speech', phenomena that remind us that, for speech, output-directed control is also readily acknowledged. Our comparative review of singing and speech will be placed in the context of the current debate on the 'invariance' and true nature of phonetic units: 'articulatory gestures' or 'auditory goals'?