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Thomasson, M. and Sundberg, J.

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Monica Thomasson and Johan Sundberg

Abstract
Breathing behaviour is generally considered of great importance to an optimised voice production in the classical western singing tradition, the assumption being that it affects phonation. If so, professional operatic singers would be expected to accurately repeat the same breathing patterns when repeating the same phrases. Recently, consistency of phonatory breathing patterns was examined. In this study, inhalatory rib cage (RC) and abdominal wall (AW) movements were documented in five professional operatic singers by means of respiratory inductive plethysmography. Comparisons of inhalatory data gathered for three takes of the same phrase revealed high consistency with regard to lung volume (LV) change and RC movements in all subjects, suggesting great relevance of RC control in singing. Consistency of AW movements was observed in three singers. Consistency measures across phrases in different musical contexts were slightly lower. The observations support the idea that breathing behaviour is important to voice production in singing. In addition, correlation between LV change, on the one hand, and RC and AW movement on the other, was examined. The contribution to LV change from RC and AW varied across singers, thus suggesting that professional operatic singing does not request a uniform breathing strategy.