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**Evaluating Vocal-Tract Influence in the Production of Saxophone**  
**Multiphonics**

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A new approach for the analysis of vocal-tract influence in single-reed woodwind instruments during performance was recently reported (Scavone et. al., 2008). Two types of vocal-tract influence were observed. When the downstream air column provides only weak support of a given note, players can use a strong and narrow-bandwidth upstream resonance to override the reed vibrations, such as when pitch bending or playing extended register notes. Performers can also use a more wide-bandwidth upstream resonance to affect subtle timbre variations when playing notes over the full range of the instrument. The research reported here addresses the performance of multiphonic tones, for which the results of the previously mentioned study were less conclusive. While it is clear that upstream influence is involved in the production of multiphonics, we are interested in determining whether performers must support a specific intermodulation component or a wider bandwidth range of components for proper production. The latest results of this research will be reported.