Differences Between Self-Assessment and External Rating of Voice With Regard to Sex Characteristics, Age, and Attractiveness

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Accepted 17 July 2013. Published online 11 November 2013.

Summary
Objectives
This study investigates differences between the self-assessment and external rating of a person's voice with regard to sex characteristics, age, and attractiveness of the voice and mean fundamental frequency (F0).

Study Design
Cross-sectional study.

Methods
A group of 47 participants with a balanced sex distribution was recruited and the following data were collected: videostroboscopy, voice range profile, F0, self-assessment questionnaire (attractiveness, masculinity or femininity of voice, and appearance), Voice Handicap Index, and questionnaires to determine levels of depression and quality of life. External rating was performed by four experts and four laymen.

Results
In both sexes, fair to moderate significant correlations between the self-assessment of masculinity (men)/femininity (women) of voice and masculinity/femininity of appearance could be found, but not between the self-assessment of attractiveness of voice and appearance. In men, a statistically significant correlation was found between external ratings and self-assessment of attractiveness and, with the exception of the female rating group, of masculinity. In women, self-assessment of femininity and attractiveness of voice did not correlate to a statistically significant extent with the evaluation of the external rater. Additionally, the statistical correlation between estimated and real ages was high.

Conclusions
Although the objective parameters of age and gender identification could be rated with a high degree of accuracy, subjective parameters showed significant differences between self-assessment and external rating, in particular in rating women's voices. Taking these findings into account in treatments for modifying voice could impede successful interventions. As one consequence, we recommend summarizing target agreements in detail before the treatment.

Key Words: Voice characteristics, Voice quality, Self-assessment of voice, External rating of voice

PII: S0892-1997(13)00143-4
doi:10.1016/j.jvoice.2013.07.007
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