

Evaluation of voice in female-to-male transsexual persons

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Context:

Voice change due to testosterone treatment is considered to be without difficulty in most female to male (FtM) transsexual persons.

Objective:

- Evaluation of the fundamental frequency while sustaining the vowel /a:/, counting to ten, and reading a standardized text (Dutch form);
- Comparison with the normal fundamental frequency for biological males (122Hz);
- Evaluation of the voice perception and appreciation by participants and a panel.

Design:

- Cross-sectional study, with 50 FM-transsexual persons at least 9 months after sex reassignment surgery (SRS). All participants received hormone therapy at least 2 years before SRS
- Voice recordings and analyses were made with Praat version 5.1.18.
- Voice appreciation was evaluated by the participants and a panel consisting of an endocrinologist, a dermatologist and two medical students.

Results:

- Sustaining the vowel /a:/, the participants had a significantly lower fundamental frequency than the male standard value of 122 Hz. No less than 86% of the group had a lower frequency than the male standard value. In 15% the main frequency was more than 1 SD less than standard (figure 1).
- Reading the text, participants had a mean fundamental frequency of 122.04 Hz, with a SD of 18.20 Hz.
- Eighty-four % considers their voice as masculine or very masculine, which can be confirmed by the voice recordings.
- Physical appearance plays a part in voice appreciation by the panel.
- There is no difference in fundamental frequency between the FtM-transsexuals who are adequately substituted and those who aren't.

Conclusions:

- The male standard frequency is achieved in a large majority of the FtM transsexuals persons.

Figure 2: Voice appreciation by participants

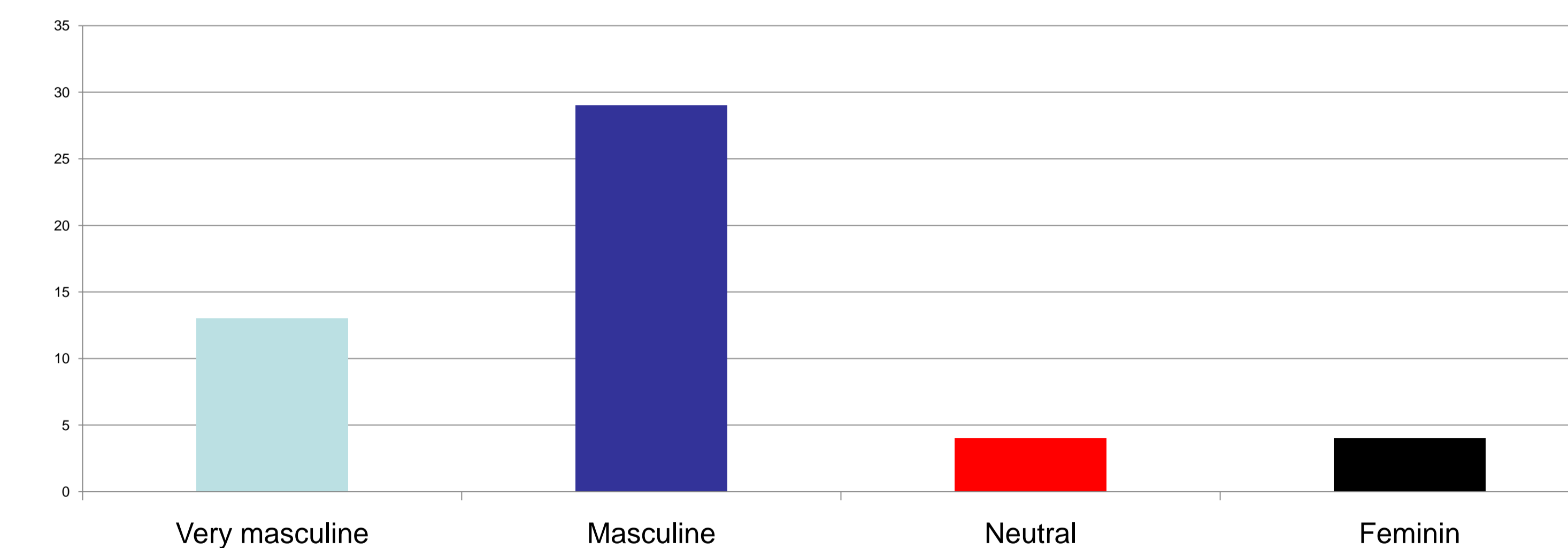


Figure 3: Voice appreciation by panel

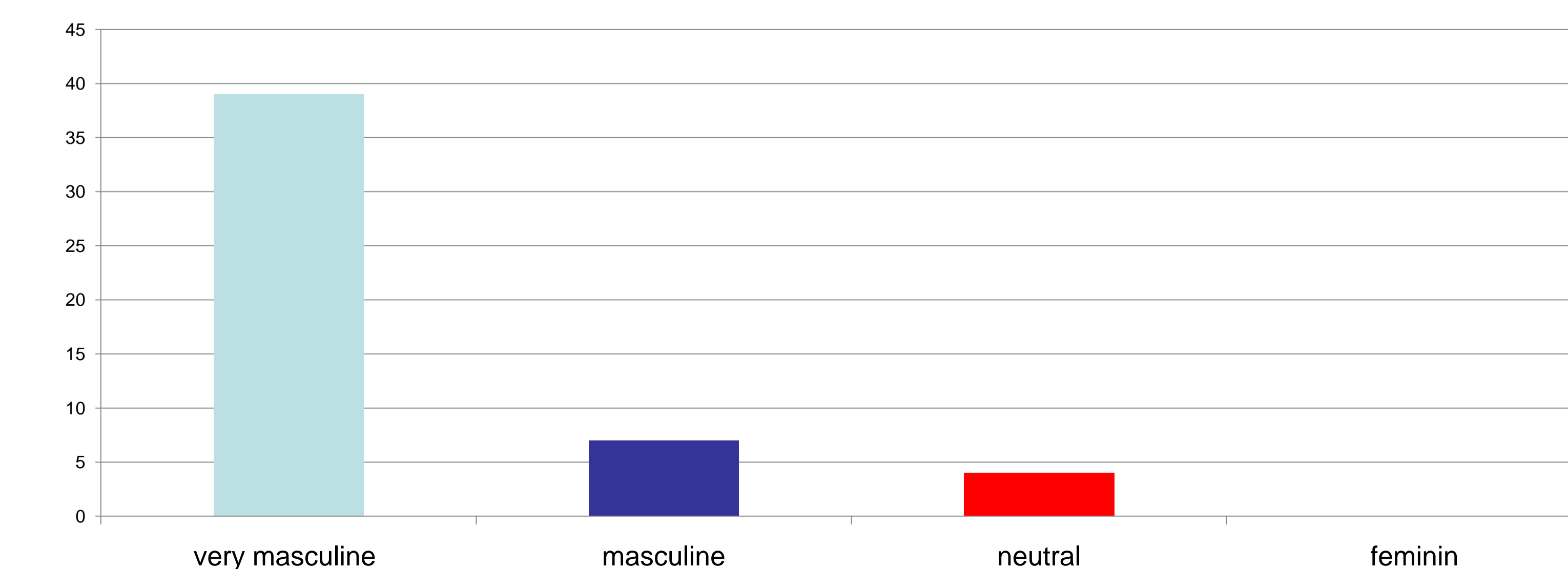


Figure 1: Fundamental frequency sustaining vowel /a:/

