

**O'Hair, D., & Cody, M. J. (1987). Gender and vocal stress differences during truthful and deceptive information sequences. Human Relations, 40, 1-14.**

O'Hair and Cody (1987) evaluated the Mark II Voice Stress Analyzer as an indicator of stress in making a deceptive response. Like the Psychological Stress Evaluator (PSE), the Mark II is designed to capture changes in voice that may be related to stress, but it has some advantages over the PSE. The Mark II allows an objective analysis by providing a numerical score to indicate a stress level, while the PSE requires an individual examiner to judge the presence of stress in the output. Also, with the Mark II, the analysis of multiple-word responses is possible, while with the PSE, the analysis is limited to one-word responses. In the present study, O'Hair and Cody used the multiple-word response format, and tested the validity of the Mark II in detecting prepared lies and spontaneous lies in a mock job interview.

A total of 49 participants were assigned to a deceptive group or a truthful group. For each participant, deceptive responses were compared to truthful responses. Participants in the deceptive group made deceptive responses to critical questions and then truthful responses to control questions, while participants in the truthful group made truthful responses to all questions. The mock job interview took place individually, and participants in the deceptive group lied about the most recent job, and responded truthfully about the second most recent job. First, a participant answered a question about the most recent employer (i.e., a prepared lie), and then, the participant was asked about duties in the most recent job (i.e., a spontaneous lie). After the prepared lie and spontaneous lie, the participant was asked about the second most recent employer (i.e., a control question for the prepared lie), and then duties in the second most recent job (i.e., a control question for the spontaneous lie). Deceptive responses about the most recent job were compared to truthful responses about the second most recent job.

Based on stress scores generated by the Mark II, higher stress scores were found in prepared lies than in truthful responses, but no difference was found between spontaneous lies and truthful responses. Scores from male participants were compared to scores from female participants, and it was found that only female participants showed a significant difference between prepared lies and truthful responses. Thus, the Mark II succeeded in identifying voice changes due to stress in prepared lies, but not in spontaneous lies, and it appears that females show more stress than males in prepared lies.