The Tudor Experiment and Wendell Johnson: Science and Ethics Reexamined

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Professionals in the area of speech and hearing science and disorders were shocked by a recent report published by the San Jose Mercury News regarding the late Professor Wendell Johnson and his stuttering research. The report accused Johnson of a legacy figure in our field, of directing a master’s thesis by Mary Tudor that was an experiment in making normally speaking children become stutterers. According to the Mercury News, the 1939 study successfully achieved its objectives in that several children indeed developed chronic stuttering. We would like to set the record straight regarding the science and ethics of the study.

The 1939 Study

Tudor used 22 children, ages 5 to 16, from an orphanage in Iowa. They were divided into four groups: IA, five stuttering children; IB, five stuttering children whose stuttering was verbally reinforced; IA, six normally fluent speakers, told that they stutter and should try to avoid stuttering; and IB, six normally fluent speakers, told they had good speech. The study took place over a 4-5 month period. Feedback, as described above, was given to children by Tudor over a few sessions per child. In addition, the orphanage staff was asked to reinforce the instructions. The effectiveness of the experiment was measured using stuttering severity ratings of five judges and counts of dysfluencies, pre- and post-treatment.

The Date Examined

We have examined the data carefully and found that the study completely failed to demonstrate any support for its conclusions that stuttering could be elicited via labeling. First, at the end of the study none of the judges described a child’s speech as stuttering. Nor did Tudor refer to their post-treatment speech as stuttering, but described the children as being afraid of stuttering, talking less, and more hesitant in their speech. Second, of the dysfluencies counted, there were no observable or significant trends (according to our calculations) in increase or decrease of any dysfluency type for any of the four groups with one exception: in the normally fluent group labeled stutterers, there was a significant increase in interjections (regarded as typical of normal speech). It is this group of six children who are of primary interest because they received negative comments about their normal dysfluencies, and it is some members of this group who have reported long-term serious problems related to fluency.

It is not clear exactly why and when the speech-related difficulties in two members of this group emerged. Interestingly, the amount of speech dysfluency of one participant in the group clearly placed her within the classification of stuttering at the beginning of the study. Keeping in mind recent progress in the genetics of stuttering and brain structures associated with the disorder, it appears to us that many active scientists in the field would be skeptical about the conclusion that a few sessions as described above, complemented by ineffective (according to Tudor) follow-ups by the orphanage staff, would have created chronic stutterers of at least two of the six target children. Although the Mercury News’ investigation is sincerely appreciated, we are of the opinion that their conclusions are grossly erroneous by failing to separate opinions from serious data-based assessments of the Tudor study.

Ethics

As for the ethical issue, to conduct research in an orphanage without disclosure of its real purpose, and to attempt to convert normally fluent children into children who stutter, is indefensible. Nevertheless, several factors might add perspective to Johnson’s decision to pursue the Tudor study. First, it was completed three years before Johnson’s early ideas about his theory were briefly expressed. It is quite possible that he did not have firm notions about the cause of stuttering, and there is no evidence to assume that he thought the study would put the children at risk for chronic stuttering. Second, the study aimed to test whether normally fluent children can be made to emit stuttering. It was not to see if they could be turned into stutterers. This is a significant distinction. The literature contains many past studies.

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