

Rice Seeds

Recent Research Studies on the Use of Sound

by Ross James



Radio is sound, therefore all meaning has to come through sound—the words chosen, the way the voice is used, the diversity of auditory effects.

The practical side of this is shown in four fairly recent studies which have turned up some very interesting findings. Only two of the experiments research radio programming specifically but their findings are of interest to radio workers because they demonstrate the power of sound to gain listener attention, to help people remember information, and its effect on source credibility.

In the first, (1) 192 children were tested to determine whether radio would be more stimulating to the imagination, and whether television would transmit more information than radio. Under experimental conditions, children of various ethnic and social class groups either listened to a cassette tape of a story or watched an animated videotaped version of that story. The videotape used the identical soundtrack. The major findings indicated that the audiotaped version stimulated more imagination and highlighted verbal information than the animated version. Overall retention of storyline action in particular, was significantly enhanced by the video.

Another study (2) investigated the use of sound effects in children's television programming. The use of sound effects increased selective attention. Children remembered more when sound effects helped them to recognise, or infer what was happening or being said.

Speaker credibility is a characteristic of a radio performer that is wholly a matter of audience perception: it is assigned by

a listener. It is the listener's perception of how a radio voice "sounds." In an experiment (3) on how vocal frequency, or pitch, affected perceptions of the speaker, different levels of pitch affected perceptions of speaker competency, honesty, and persuasiveness. The perceptions varied, however, according to the sensitivity of the listeners to this type of nonverbal stimuli.

Radio news editors commonly believe that the broad spectrum of sound contained in voice reports and actualities add to the appeal of news. One study (4) has found no support for that belief. Further, it did not find evidence to support the view that voice reports and actualities help listeners to remember the facts of news stories.



In their own way, the findings of each of these studies challenge radio producers to use to greater effect, the range of sound at their disposal. Sound is the tool of our trade. Let's use it wisely and use it well.

End Notes:

- (1) Greenfield, P. and Beagles, Roos, J. 1988. Radio vs. Television: Their Cognitive Impact on Children of Different Socio-Economic and Ethnic Groups. *Journal of Communication*, 38 (2).
- (2) Calvert, S. and Gersh, T. 1987. The Selective Use of Sound Effects and Visual Inserts for Children's Television Story Comprehension. *Journal of Applied Developmental Psychology*, 8 (4).
- (3) Bond, R. et al. 1987. Vocal Frequency and Person Perception: Effects of Perceptual Salience and Nonverbal Sensitivity. *Journal of Psycholinguistic Research*, 16 (4).
- (4) Grady, L. 1987. How Voice Reports, Actualities Affect Recall of Radio News. *Journalism Quarterly*, 64 (2/3).