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Complex Scientific Testimony: Can Educational Psychology Turn Jurors into Students and Attorneys into Teachers?

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COMPLEX SCIENTIFIC TESTIMONY: CAN EDUCATIONAL PSYCHOLOGY TURN JURORS INTO STUDENTS AND ATTORNEYS INTO TEACHERS?

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As the world moves into the twenty-first century, science and technology is progressing at an exponential rate. More and more often, the court system is introducing expert witnesses to contend with the more difficult, technical explanations of complex testimony. Jurors are often required to both comprehend and apply complex testimony as they deliberate, though they may not have any background or extra assistance in areas where they lack expertise. In the following study, I examined ways in which the jurors' learning environment can be manipulated in order to facilitate memories of testimony, juror comprehension of the testimony, and attitudes of jurors toward attorneys and expert witnesses.

This study integrated schema theory, from cognitive psychology, and the idea of "meaningful learning", from educational psychology. A schema is a way of structuring previously existing knowledge to facilitate the learning of novel information. Schemas help people to better store and retrieve new information. David Ausubel, a pioneer of educational psychology theory, used schemas to formulate his concept of "meaningful learning". Ausubel believed that the key to meaningful leaning was the activation of previously stored material, i.e. a schema. New information can be most effectively and efficiently stored if it is related to old information. To date, no other researcher has used David Ausubel's theory as a theoretical basis for jury learning in the courtroom.

Participants were divided into two groups. Group 1 observed a videotape in which the expert witness briefly outlined her testimony before giving the full deposition, while others saw a tape where the witness immediately delved into the bulk of her testimony. It was our hypothesis that those who got the outline first (i.e. advanced organizer) would better understand, comprehend, and use the information they were given when coming to a verdict. The experiment is a 2X2 factorial design with the independent variables (IVs) being level of expertise (psychology major/expert vs. non-psychology major/novice) and method of presentation (traditional vs. Ausubelian). There will be five dependent variables (DVs) measured. Memory of evidence will be evaluated by asking for a free recall of the information presented at trial. The total number of details vs. the number of accurate details will be calculated as a ratio to determine memory differences. Comprehension differences will be evaluated by a score on a multiple choice test created by the experimenters. The third and fourth DVs, attitudes toward witnesses and attorneys, will be evaluated according to Likert scales designed by the experimenters. The final DV, the basis for final verdict, will be evaluated by determining percentages of different influences attributed to the decision by each juror. Data will be analyzed using a MANOVA statistical manipulation for main effects and interactions.

Results have implications for the future of jury decision making processes and the ways in which jurors should be approached when verdicts are reliant on complex scientific areas of inquiry.