

## **Simple vs. Complex Explanations from Undergraduates and Students in a Graduate Counseling Program**

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### **ABSTRACT**

**Undergraduate and graduate students listened to two audiotapes, one a psychotherapy session the other a talk by a minister. They then wrote out their explanations of what was said. Student assistants, trained in rating complexity or simplicity of answers, rated their answers for complexity or simplicity. Somewhat surprisingly, all the undergraduates (n=105) wrote answers considered simple while all the counseling graduate students (n=15) wrote answers rated as complex ( $p<.001$ ). Implications are discussed as well as discussion of a few graduate students who made grave errors in their answers.**

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### **Introduction**

The explanations people give should reflect something about how they are thinking (Commons, Goodheart, Pekker, et al., 2007; Huitt, 2006; Oliver, 2004; Overton, 1990; Piaget, 2001). A very simple explanation to a complex even may show that a person is not thinking deeply or critically about something. On the other hand, complex thinking about an event usually reveals that the person has mastered a degree of intelligent use of their cognitive abilities (Fischer 1980, Laske, 2000a, 2000b; Miller & Cook-Greuter, 1994; Miller & Lee, 2000).

In the present study, we were interested in whether students in a master's level graduate counseling psychology program would show complex thinking when listening to a therapy audio tape and to a speech by a minister. And, would undergraduates show any complex thinking to these two materials, or would most show simple thinking?

## Method

The participants were 105 undergraduate students from three Introduction to Psychology classes (mostly freshmen and sophomores), and 15 students from two graduate (master's level) Counseling Psychology classes. All classes were psychology department classes, with psychology at this university being in a College of Education. The university was a medium size regional state university, which employed open admissions at the undergraduate level but was selective at the graduate level.

The participants listened to two audiotapes during their classes. One audiotape was a psychotherapy session, with a male therapist and male patient. The patient was a sex offender serving time in a prison. The other audiotape was by Reverend James Dobson, a famous minister, discussing his beliefs. Each tape lasted about 30 minutes.

Two undergraduate students were trained as raters of answers to score for complexity or simplicity of the answers. For example, simply describing what the person said was rated as simplicity while critical assessment of the person's talk was rated as complexity. The two students had 85% agreement on their scoring, with differences resolved by conversation. The papers with the answers that the participants turned in were coded by the authors and mixed up so that the raters had no idea if they were rating an undergraduate or graduate student paper.

## Results

All 105 undergraduate students were rated as giving simple answers while all 15 graduate counseling psychology students were rated as giving complex answers. Fisher's Exact Test shows this difference to be statistically significant at  $p < .001$ .

A typical undergraduate paper on the sex offender therapy read: "A sex offender received therapy. The therapist asked him many questions." A typical graduate counseling psychology student answer was "The sex offender was mostly resistant to what the therapist was trying to do. Most of his statements seemed dishonest to me. I think he was trying to pull the wool over the therapist's eyes. However, the therapist got him to make some damning admissions toward the end."

A typical undergraduate statement about the Rev. Dobson talk was "He talked a lot about religion. This man really believes in religion." A typical graduate student statement was "He has his own way of thinking. He believes only his way is correct and that all other religions are wrong. He also justifies what he believes by saying that God has spoken to him."

## Discussion

The results suggest that the graduate counseling psychology students show complexity in their thinking but that the undergraduates all were simple in their thinking.

The undergraduates tended just to describe what they heard, and often in very simple, direct terms, with no reflection on what it meant. Perhaps as they proceed through college work they will improve. If not, they will not be very sharp thinkers and will not be able to evaluate well what they read or hear.

The complex answers tended to be longer than the simple answers. That is probably because those making complex answers had more to say. But, future research could see if being scored simple or complex is an artifact of the length of answer.

Three counseling psychology graduate students gave answers that were complex, but contained what is likely a major error in clinical thinking. They said that because the minister said God talked to him, he was suffering from paranoid schizophrenia. While it is true that paranoid schizophrenics and other types of schizophrenics may think that God talks to them, it is also true that it is part of normal thinking for some deeply religious people to say that God talks to them. They seem to mean that they get inspiration and understanding of what is desirable from God, but they do not mean they hear his voice the way you hear voices in conversation. So, these three counseling psychology graduate students made a big error in thinking that the minister's reference to God talking to him indicated pathology. This is something that clinical and counseling professors need to cover when teaching their students.

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