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## Cognitive and Physiological Processes Underlying Written Disclosure

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Poster Presentation 21

**COGNITIVE AND PHYSIOLOGICAL PROCESSES UNDERLYING  
WRITTEN DISCLOSURE**

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The aim of this research is to examine the underlying cognitive processes as well as the physiological outcomes of disclosing traumatic events. Epstein (1973, 1991, 1994, 1998) has argued the existence of two fundamental modes of cognitive processing: A rational mode that involves higher brain functioning and is reason-oriented, and an experiential mode that involves lower brain functioning and is pleasure oriented. We examined the hypothesis that fact-based disclosure invokes rational processing while emotion-based disclosure invokes experiential processing by examining participants' behavior in a decision-making task following written disclosure. Moreover, based on previous findings suggesting that events involving high vs. low brain functioning involve different types of physiological activation (Tomaka, Blascovich, Kelsey, & Leitten, 1993), we proposed the following: First, emotion-based retelling will result in a uniform pattern of autonomic activity across subjects, marked by an increase in sympathetic activity coupled with a decrease in parasympathetic activity. Second, fact-based retelling will result in diverse sympathetic and parasympathetic activity between subjects, including an increase in sympathetic activity with no change in parasympathetic activity and a decrease in parasympathetic activity with no change in sympathetic activity. Sixty undergraduates at Illinois Wesleyan University wrote about a personally traumatic event from either a factual or emotional perspective for ten minutes and then participated in a decision-making task modeled after Epstein's ratio-bias paradigm. Impedance cardiography was employed to examine autonomic arousal (heart rate, blood pressure, respiratory sinus arrhythmia, and pre-ejection period) throughout the study. Participants' physiological responses, in combination with their performance in the ratio-bias paradigm, were used to indicate whether fact-based and emotion-based disclosure invoked the rational and experiential systems, respectively