The Journal of Credibility Assessment and Witness Psychology
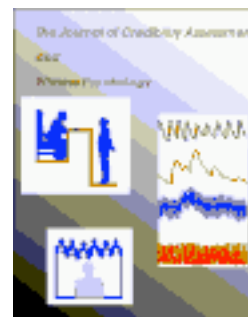
Special Issue:

Proceedings of the Workshop on the Use of Autonomic and Somatic Measures for Security Evaluations

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Introduction to the Special Issue

In the summer of 2005, the National Science Foundation sponsored a series of six workshops on security evaluations. One purpose of the workshops was to develop an agenda for research on credibility assessment. The articles in this special edition are the presentations given by the invited speakers at the Workshop on the Use of Autonomic and Somatic Measures for Security Evaluations. This workshop covered four areas: needs of government agencies charged with national security; current methods used for measuring stress and detecting deception with autonomic and somatic measures; contemporary theory and psychophysiological mechanisms underlying responses to stress and deception; and emerging, alternative, and auxiliary methods and measures for detecting stress and deception. The articles are organized into these four areas as follows:

1. Needs of government agencies charged with national security	
Polygraph Screening	Don Krapohl
2. Current methods used for measuring stress and detecting deception with autonomic and somatic measures	
Issues in the study of polygraph screening techniques	Michael Bradley
Using the Polygraph in Employment and National Security	David C. Raskin & Charles R. Honts
Emerging Technologies in Credibility Assessment	Andrew H. Ryan, Jr.
3. Contemporary theory and psychophysiological mechanisms underlying responses to stress and deception	
Toward a Neurocognitive Basis of Deception	Ray Johnson, Jr.
The Polygraph: One Machine, Two World Views	Stephen W. Porges
4. Emerging, alternative, and auxiliary methods and measures for detecting stress and deception	
Voice Stress	
The Use of Voice in Security Evaluations	Harry Hollien & James Harnsberger
Voice Stress	James Meyerhoff
Evaluating Voice-Based Measures for Detecting Deception	Mitchell S. Sommers
Thermal Imaging	
Emerging Methods and Measures for Detecting Stress and Deception: Thermal Imaging	Dean Pollina

Odor	
Body Odors as Biomarkers for Stress	Pamela Dalton
Radar, Laser Doppler Vibrometry	
Radar Technology for Acquiring Biological Signals	Gene Greneker
The Physiology of Threat: Remote Assessment Using Laser Doppler Vibrometry	John W. Rohrbaugh, Erik J. Sirevaag, John A. Stern, and Andrew H. Ryan, Jr.
Occulomotor Activity	
The Gaze Control System and Detection of Deception	John A. Stern
Eye Movement-Based Assessment of Concealed Knowledge	Frank M. Marchak
Multimethod Assessment of Deception on Personnel Tests: Reading, Writing, and Response Time Measures	Andrea K Webb, Sean D. Kristjansson, Dahvyn Osher, Anne E. Cook, John C. Kircher, Douglas J. Hacker, and Dan J. Woltz

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