

Intelligence Analysis Challenges and Vulnerabilities

Krizan ^a	Heuer ^b	Trent, et al. ^c	Hutchins, et al. ^d	Johnson ^e
Prematurely Formed Views	The Vividness Criterion	Inappropriate Mental Set	High Cognitive Workload	Secrecy versus Efficacy Tradeoff
Willful Disregard of New Evidence	Absence of Evidence	Environmental Pressure	Potential for Error	Focus on Current Production
Lack of Empathy	Base-Rate Fallacy	Fixation	Time Pressure	Time Constraints
Ethnocentrism & Mirror-Imaging	Oversensitivity to Consistency	Recognition of Relevant Data	Coping with Uncertainty	Confirmation Bias, Norms, and Taboos
Ignorance	Anchoring	Trust	Data Overload	Analytic Identity
Rational-Actor Hypothesis or Denial of Rationality	Assessing Probability of a Scenario	Experience viewed as Expertise	Synthesizing Multiple Sources of Information	Production-based Rewards and Incentives
Proportionality Bias	Availability Rule	Learning	Insufficient Tools	Analytic Training
Defensive Avoidance & Wishful Thinking	Similarity of Cause and Effect	Tool Understanding	Organizational Context	Perception of "Tradecraft" Versus Scientific Methodology
Conservatism in Probability Estimation	Internal vs. External Causes of Behavior	Sustained Attention	Complex Human Judgments	
Presumption that Support for One Hypothesis Disconfirms Others	Persistence of Impressions Based on Discredited Evidence			
Best-Case Analysis or Worst-Case Analysis	Overestimating Our Own Importance			
Image and Self-Image	Illusory Correlation			
Overconfidence in Subjective Estimates	Expression of Uncertainty			
Inappropriate Analogies & Superficial Lessons from History	Bias Favoring Perception of Centralized Direction			
Evoked-Set Reasoning	Coping with Evidence of Uncertain Accuracy			
Excessive Secrecy				
Presumption of Unitary Action by Organizations & Organizational Parochialism	Bias in Favor of Causal Explanations			

Note. From *When is Analysis Sufficient: A Study of How Professional Analysts Judge Rigor* by D. Zelik, 2007. ^aAdapted from *Intelligence Essentials for Everyone* by L. Krizan, 1999. ^bAdapted from *Psychology of Intelligence Analysis*, by R. J. Heuer, 1999. ^cAdapted from "Challenges for Cognition in Intelligence Analysis," S. A. Trent, et al., in press, *Journal of Cognitive Engineering and Decision Making*. ^dAdapted from "What Makes Intelligence Analysis Difficult? A Cognitive Task Analysis of Intelligence Analysts," S. G. Hutchins, et al., 2006, in P. L. Pirolli (Ed.) *Assisting People to Become Independent Learners in the Analysis of Intelligence*. ^eAdapted from *Analytic Culture in the US Intelligence Community: An Ethnographic Study*, by R. Johnson, 2005.