Mr Andre Korsmo Berntsen, The Military Academy at ETH Zurich, Cognitive Congruence, Friction, and Team Performance Under Tactical Stress.

An infantry squad moves through an urban environment, faced with chaos, noise and limited time. The squad leader makes quick, intuition-based decisions and puts them forward as orders to the soldiers. Some respond immediately; others hesitate, seeking the reasoning behind the order. When the individual cognitive styles within a group do not align, cognitive friction might increase the risk of the group fragmenting and facing decision paralysis. This paper aims to answer the question of to what degree congruence in cognitive style (analytical vs. intuitive), both dispositionally (trait) and situationally (state), affects a squad's mission effectiveness. Building upon dual-process theory (Kahneman, 2011), the Recognition-Primed Decision model (Klein, 1998), and person–team fit theory (Kristof-Brown et al., 2005). 85 soldiers in 12 infantry squads underwent a complex simulation mimicking a real-life scenario. The exercise had a high degree of uncertainty and stress. Stable cognitive style was measured at the individual level using the Rational–Experiential Inventory (REI-40; Pacini & Epstein, 1999), while situational cognitive style was measured immediately post-scenario using the Cognitive Processing Questionnaire (CPQ; Mayiwar, Hærem, & Furnham, 2023). Mission success was measured across four dimensions by multiple subject matter experts: mission accomplishment, tactical proficiency/doctrinal correctness, adaptability, and overall performance. Congruence is measured as the deviation between soldiers and squad leaders, as well as individually between all members. Data was collected at a Swiss military recruit school. Planned analysis includes nested linear regression models to account for the hierarchical data structure, plus exploratory tests for non-linear effects. The study aims to develop an empirically grounded model for trait-state cognitive styles effect on the composition of small unit teams in operative stress. The study contributes by addressing an under-researched aspect of how cognitive congruence affects real-time tactical decisions.