

## **Psychological network analysis: A novel approach to modeling cognitive structures**

### **Abstract**

Cognitive structures are used to understand and categorize information. Often, these structures consist of a set list of attributes that are prototypical of particular objects or ideas. When an individual is exposed to a new environmental stimulus, an individual's cognitive structures are activated and compared against the attributes observed in the stimulus. The more similar the perceived attributes of the stimulus are (e.g., the observed behaviors of a leader) to the attributes of a particular cognitive structure (e.g., the individual's concept of a "good" leader), the stronger the association is between the stimulus and the category membership for that structure. This process allows individuals to organize and make sense of their environment. Despite this theoretical understanding of cognitive structures, aligning theory with empirical approaches has been a notably difficult undertaking. Psychological network analysis ("PNA") offers a potential remedy for this shortcoming. Demonstrated across a number of research domains (leadership, entrepreneurship, organizational culture, and work-life balance), early results provide support for PNA as viable tool for researchers interested in modeling cognitive structures. Therefore, the aim of this presentation will be to introduce and demonstrate the utility of PNA, as well as solicit feedback on how this novel approach might be further advanced and employed.