



It's Just Not That Simple

**A complex adaptive systems approach to
understanding changing dynamics in
leadership teams**

by Chris Maxwell

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Abstract

The aim of this thesis is to employ complexity theory to better understand organisational leadership team dynamics.

Complexity in management and organisation studies is a relatively new field. At present the field is split by scale: computational modelling is applied at population scale to understand and predict how large groups behave, while complexity concepts are woven into allegorical narratives and frameworks to help leaders understand and respond to how individuals engage with complexity. What is missing is complexity applied at the level of small groups: the scale at which organisational teams – and in particular leadership teams – most commonly work.

This study subjected five diverse leadership teams to a series of quasi-experiments involving simulated challenges, after which the researcher and each group engaged in co-created sensemaking through a group debrief. It was found that complex challenges trigger teams to enter states characterised by complex dynamics, and further that these complex states operate away from the team's baseline states. The complex state was found to be metastable and dissipative, readily decaying back to the equilibrium state if not sustained.

This study offers three contributions to the field. The first is an “Uncertainty Landscape”, a phase or state diagram that maps how team states change in response to uncertainty and complexity. The second is the beginnings of a theory of “complex dissipative teams” which explains the relative stability of complicated and complex states, the reasons why – and mechanisms by which – such states decay, as well as how complex states might be maintained. The third contribution

is in the construction of the research methodology, and its positioning in between the mathematical and narrative approaches to complexity.

The results inform our understanding of how leadership teams behave when tasked with complex decisions. They highlight how avoidance behaviours aimed at dissipating the complex state result in sub-optimal decisions, false consensus or lack of progress to solution. By contrast, it was found that teams that were able to maintain working in a complex state worked faster, achieved greater consensus and resolved the complex problems they were set.