**Four studies of communicative, cognitive, and social factors in extremism and polarization**

Extremism and polarization threaten the stability of societies and governments worldwide. Why do extremism and polarization emerge? What fundamental capacities and processes lead to extremism and polarization? Are extremism and polarization inevitable in certain contexts? In this dissertation defense I will present four studies that modestly contribute to answering these questions, which can be formulated simply, but require complex systems thinking to answer—it is necessary to compartmentalize and analyze sub-systems to understand the whole. In this defense I will show that the communication strategy of metaphorical violence use (e.g., “Clinton *attacked* Trump”) on cable news became more highly correlated with political events, especially candidate Twitter use, in the 2016 US presidential election and debate season compared to 2012. Metaphorical violence is important to understand because it has been shown to exacerbate extremism, including support for political violence. I also present analyses of context-independent factors of rising extremism and polarization, including the human capacities to increase agreement or disagreement between individuals depending on their views, and the tendency of more extreme opinions to also be more stubborn. I will show that this small set of assumptions can explain both rising extremism in socially isolated groups and rising polarization in internet-connected societies. I will also demonstrate the importance of rigorous, valid statistical models by showing that many published detections of rising extremism in experimental settings are plausibly false due to a mismatch between measurement and statistical techniques. This approach complements other ongoing work on extremism and polarization in cognitive science that focus, for example, on the relationship between partisanship and polarization and personality traits, or on extremism and polarization in the context of specific political issues such as climate change.