

Running Head: DEFENSIVE RUMORS

"I heard that Democrats Abuse Drugs and Republicans are Racist"

Network Segmentation and Group Segregation Effects on Defensive Rumor Belief Bias and Self Organization

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Abstract

Within the framework of Dynamic Social Impact Theory (DSIT), three computer-mediated laboratory social network experiments tested the effect of network segmentation and group segregation on defensive rumor belief bias and belief clustering over time. Participants were moderate to strongly identified Democrats and Republicans in the five months preceding the 2008 US Presidential election (Study 1), deaf and hearing persons (Study 2), and women and men (Study 3). Participants were configured into 26 16-person groups at two US institutions. Each 16-person group consisted of eight persons from each study subgroup pair (e.g., 8 Democrats and 8 Republicans). Via chat-like graphical user interfaces, groups serially discussed nine pretested controversial rumors that were either praising or derogatory toward one or the other group (e.g., “Democrats are more likely to abuse drugs than the average citizen,” “Democrats score higher on conscientiousness....,” “Republicans are more likely to have racist attitudes...”, “Republicans are more educated...”); from the perspective of each participant, each rumor was therefore either defensive (ingroup-positive or outgroup-negative) or non-defensive (ingroup-negative or outgroup-positive). Network segmentation was varied across discussions by configuring participants into torus (lattice) or “family” (connected clusters) network structures; a torus structure is unsegmented, a family is segmented. Group segregation was varied across five levels from completely integrated (“checkerboard” pattern) to completely segregated (two disconnected subgroups). Rumor type, network segmentation, and group segregation were counterbalanced in a hyper-Greco-Latin-squares design. Participants rated their level of belief in each rumor before and after discussion. Defensive rumor belief bias consisted of the sum of subgroup mean increases in defensive rumor belief and decreases in non-defensive belief (e.g., after discussing a Democrat-negative rumor, the extent to which Republicans believed it more and Democrats believed it less). Rumor clustering consisted of the extent to which spatially proximate pockets of similar levels of rumor confidence emerged at greater than chance levels after discussion. In segmented (i.e., “family”) configurations, defensive rumor belief bias and the emergence of clustering were both related to group segregation; this did not occur in non-segmented (i.e., torus) conditions. These effects were strongest for Democrat-Republican groups. Results increase our knowledge about how group segregation affects the intensity of defensive rumor beliefs, extend DSIT to intergroup perceptions, and advance our understanding about the social space dynamics of belief in defensive and non-defensive rumors.