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Uncertain Identity Inference in a Biased Media Landscape: An Agent-Based Model of Identity Signalling, Moral Values, and Political Polarisation

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Abstract

Political polarisation is growing along with its negative consequences – degradation of functional government and increases in stochastic violence. Polarisation can result from both cognitive factors affecting information processing and biased information ecosystems, but their interactions are poorly understood. We present an agent-based model combining a varyingly polarised media landscape with agents driven by homophily and uncertain (political) identity inference processes. Agents were motivated to find similar others to form an ingroup by comparing moral values expressed in response to environmentally imposed moral dilemmas. Media pushed moral values in line with either liberal or conservative values, varying in agreement and influence. Liberal agents were more satisfied (according to homophily motivations), formed larger, more stable clusters, and morally disengaged less than conservatives. Identity aligned media exposure increased liberal agents' satisfaction, but had no, or the opposite effect, on conservative agents. We conclude that media exposure asymmetrically affects political polarisation across political identities.