# Differential Empathy, Social Dominance Orientation, and the Limitations of Social Science Research 

Sun, Sierra (School: The Waterford School)

Previous research suggests people exhibit an "empathy gap": they feel more empathy for members of their group than for outsiders. I explored whether the empathy gap exists in racial and partisan contexts and how it translates into real-world action (donations). Surveytakers were recruited from two platforms. Rather than the expected empathy gap, Platform 1 surveytakers exhibited a statistically-significant reverse empathy gap ( $\mathrm{N}=418, \mathrm{p}=.0009$ ), with white surveytakers expressing more empathy for Black than white scenario protagonists. In contrast, for the same scenario on Platform 2, surveytakers exhibited a statisticallysignificant empathy gap ( $\mathrm{N}=781, \mathrm{p}=.0442$ ), with white surveytakers expressing more empathy for white than Black protagonists. These conflicting results are explained by a previously unaccounted-for variable: social dominance orientation (SDO), which measures an individual's preference for hierarchy. Platform 2 surveytakers had much higher SDO scores than Platform 1 surveytakers. When combining data across platforms ( $\mathrm{N}=1199$ ), low SDO surveytakers exhibited a reverse empathy gap and high SDO surveytakers exhibited an empathy gap; in- vs. out-group-condition moderated the relationship between SDO and empathy ( $p=.0022$ ). Similarly, both SDO and in- vs. out-group-condition influenced donation amount ( $p=.1227$ ). Additionally, the relationship between empathy and donation was moderated by both SDO and in- vs. out-group ( $p=.0199$ ). Partisanship data followed similar trends. These results highlight how hidden differences in population samples can lead to replication failures and even statistically significant, conflicting results. Given significant replication challenges, social science researchers need to account for SDO and similar overlooked factors.

