

Social support regulates vigilance to threat: Evidence from startle reactivity during emotional stress induction

Saturday, September 13, 2025 12:00 PM (10 minutes)

The Social Baseline Theory (SBT) suggests that dealing with an uncertain and threatening environment in isolation comes with higher cost than doing so with social support, as the human brain and body evolved to operate optimally in a social environment. SBT identifies two mechanisms, load sharing and risk distribution, suggesting that when a threat arises in the environment, the load as well as the effort to deal with it can be distributed among members of a social group, optimizing the metabolic and behavioral resources invested by individuals.

In this research we tested this model in an ecological setting, exposing participants (N = 70) to a stress induction task (TSST) and varying their access to social support. We recruited three groups of participants that performed the task together with their Partner, together with a Stranger, or Alone. During the task we collected participants' startle reactivity, a sensitive index of allocation of attentional resources as well as emotional state, elicited by randomly presenting a series of noise bursts during the task.

The analysis revealed that startle reactivity is inhibited during the task in all groups, indexing that dealing with the stressor saturates participants' resource capacity. Additionally, we found that this resource saturation is larger in the Alone group compared to the other two social groups.

This finding provides support for the SBT, showing how startle dynamically tracks the load sharing process by which proximity with social resources optimize the physiological as well as cognitive regulation of behavior in a threatening environment.

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