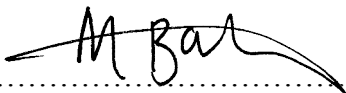


# **The Social Consequences of Defensive Physiological States**

Submitted by Megan Christina Barnsley to the University of Exeter  
as a thesis for the degree of  
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## **Abstract**

This thesis examines the validity of polyvagal theory as a model of normal socio-emotional responding (Porges, 1995, 2001, 2003a). Polyvagal theory makes several claims, and to date many of its predictions lack empirical testing. In the current research, five main hypotheses stemming from polyvagal theory were identified and tested using healthy participants. The initial empirical study examined the influence of laboratory stressors on autonomic function. The findings revealed that social evaluative threat increases activation of the sympathetic nervous system more than a virtual reality maze, and that arousal remains elevated for longer during anticipation of social evaluative threat in comparison to recovery from social evaluative threat. The second study investigated the effects of emotion regulation strategies on autonomic function, and highlighted the effectiveness of two meditation practices in reducing defensive physiological arousal and increasing subjective positive emotion. These studies were followed with a set of studies designed to evaluate the effects of defensive physiological arousal on socio-emotional functioning, as a direct test of polyvagal theory. The first study examined the effects of a laboratory stressor on facial expressivity, revealing that social evaluative threat had little impact on expressive regulation. A second study investigated the effects of a laboratory stressor on emotional sensitivity and spontaneous facial mimicry. Some limited support was found for polyvagal theory, although neither emotional sensitivity nor facial mimicry was significantly affected by laboratory stress. A final empirical study investigated the effects of a laboratory stressor on affiliation tendencies. The laboratory stressor did not influence participants' willingness to spend time with others, however the experiment did reveal significant relationships between markers of social safeness and affiliation. The overall conclusion of this thesis is that polyvagal may not be a representative model of socio-emotional functioning in healthy participants. The implications of these findings are discussed in relation to the validity of polyvagal theory as a universal model of socio-emotional responding.

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