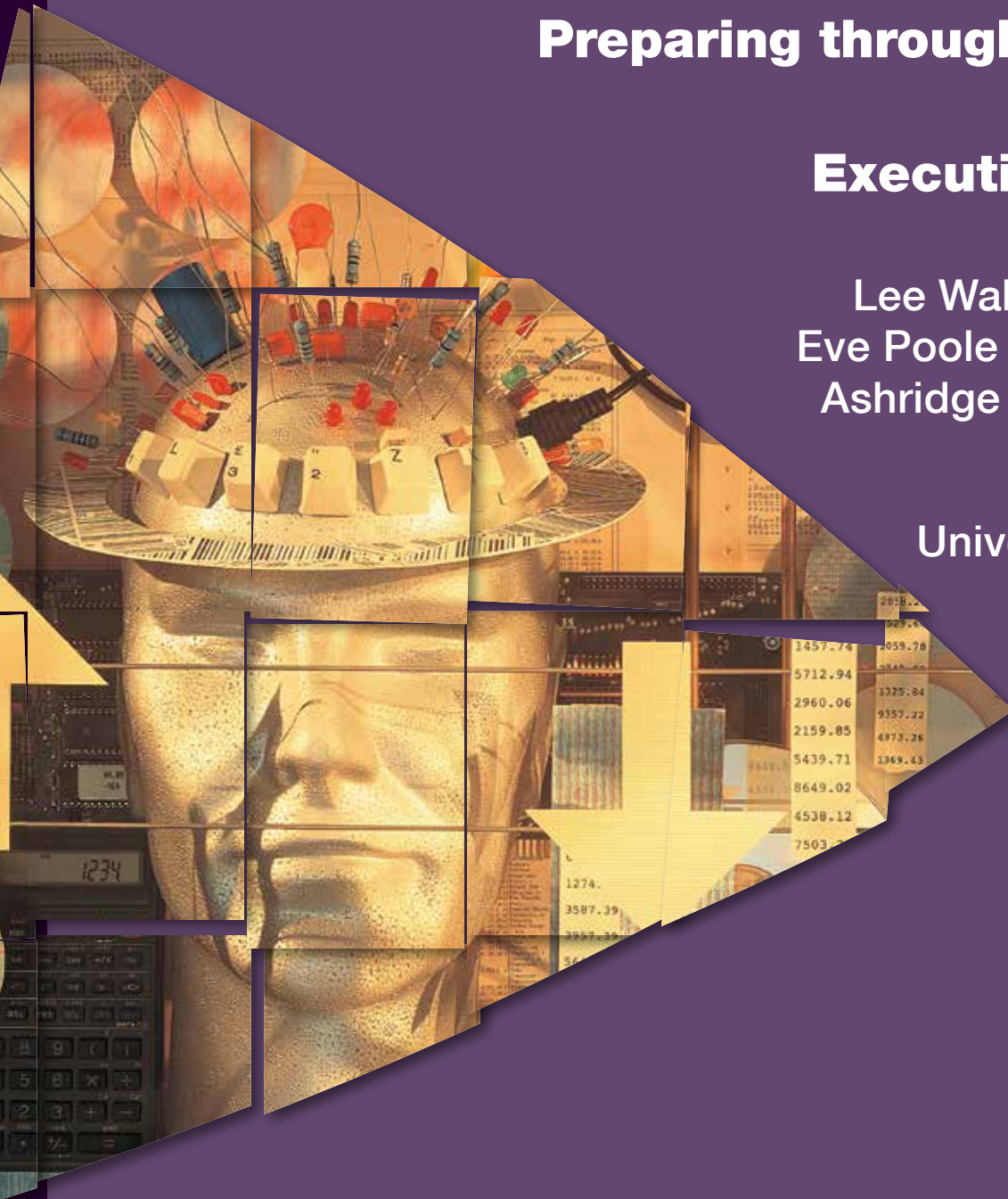


# The Neuroscience of Leadership Development: Preparing through experience

## Executive Summary

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# EXECUTIVE SUMMARY

## Introduction

It has long been understood that stimulating experiential learning events can have a lasting impact on us. We remember those events, and very often we perceive that we learn from them. However, less is understood about why we perceive them to be important in our development; what exactly is happening in the brain and body that can so facilitate learning in these circumstances; what degree of challenge is appropriate for effective experiential learning; and do we all learn from these events or do some reap more benefits than others?

It is these questions that this research sought to answer by examining individuals' physiological responses to the experiential simulations used in Ashridge Business School's *The Leadership Experience (TLE)* programme.

The research is underpinned by the concept of fight or flight, the activation of our sympathetic nervous system in response to stress. It is proposed that when we believe we have the resources to meet the demands of an arousing situation, this instigates a 'challenge' response, which has been found to be associated with improved cognitive performance (Jamieson, et al, 2010). However, the perception that the demands of the situation outweigh our personal resources induces a 'threat' response, which impedes our cognitive performance (Blascovich & Tomaka, 1996). These states of challenge or threat can be measured by monitoring changes in cardiovascular efficiency (Kassam, Koslov & Mendes, 2009).

The objective of the current research was to determine whether the TLE was inducing this sympathetic nervous response and if so, whether this response was related to learning.

## Methodology

The research used a measure of the difference between resting heart rate (HR) and HR during the critical incident simulations (DHR), and correlated this with self-reports of learning to assess impact on perceived learning; and also with a variety of psychometric measures to understand which individuals benefit most from these methods.

## Findings

The research found significant correlations between DHR during the simulated critical incidents and perceived learning which were unrelated to personality type. The research also found, however, a significant correlation between DHR and learning during a group activity not expected to be related to learning for individuals with 'approach' personalities, as determined by the Behavioural Approach/Behavioural Inhibition Scales. These findings suggest that simulations which cause arousal are associated with perceived learning for all personality types, but that those with 'approach' personalities may have higher perceived learning, either because they perceive the learning in arousal events to be greater, or because they are more engaged by virtue of their personality type.

## Conclusion and implications for practice

The findings from the research help clarify the mechanisms involved in the effectiveness of experiential learning, and contribute to our understanding of the influence of personality type on perceived learning from experiential methodologies. Such understanding has implications for business schools and learning and development professionals, suggesting that development experiences that challenge leaders are likely to result in learning that is longer-lasting.

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