

# Personality moderates the effect of task on perceived frustration in special force police officers

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## Introduction

The Big Five factors have shown predictive utility in explaining a variety of skills and behaviours, e.g., memory skills and learning skills (Matthews, 1999) and 'real world' and job performance (Barrick & Mount, 1991). It has been found that personality may exert an influence on ratings of subjective workload, specifically, that neuroticism was related to perceived frustration (Rose et al., 2002).

## Study Aims

This study tested whether personality profiles were associated with subjective workload in a set of tasks that special force police officers (SFPO) usually carry out.

## Method

### Participants

Participants were a flying column ( $n=290$ , mean age  $35\pm7$  years, mean experience  $14\pm8$  years).

### Measures and procedure

Participants completed a battery of psychological scales including measures of personality, depression, state anxiety, burn-out and work-related stress (See Figure 1 footnote) for routine psychophysical assessment and the NASA-TLX after four tasks: Normal Training, Redman Training, Stand-By and Intervention at a political demonstration.

## Results

### Cluster analysis

A Two-Step cluster analysis was performed on scale z scores. Since the procedure automatically computes the optimal number of clusters, to avoid capitalization on chance the analysis was repeated on 10,000 bootstrapped samples and a two-cluster solution was found to be the most adequate in 83% of samples.

Two personality profiles were found: **Resilient** and **Undercontrolled**. The latter officers were characterized by higher levels of neuroticism, depression, anxiety, professional exhaustion, loss of empathy and work-related stress (Figure 1).

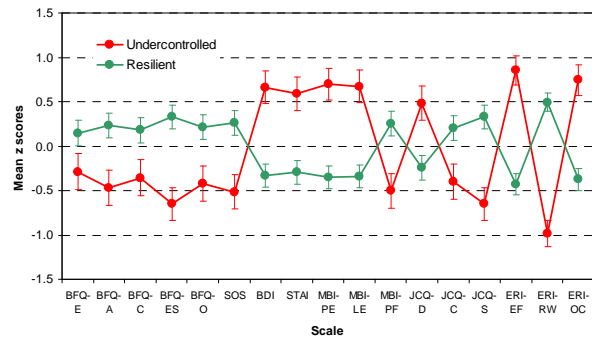
### Propensity score analysis (PSA)

Since officers were not randomly assigned to clusters, the estimates of cluster mean differences in NASA-TLX scores were likely to be biased and inconsistent. Hence, we performed PSA to balance the distribution of covariates (i.e., age, years, in service, marital status, etc.) in the two clusters, obtaining case weights to be used in subsequent analyses.

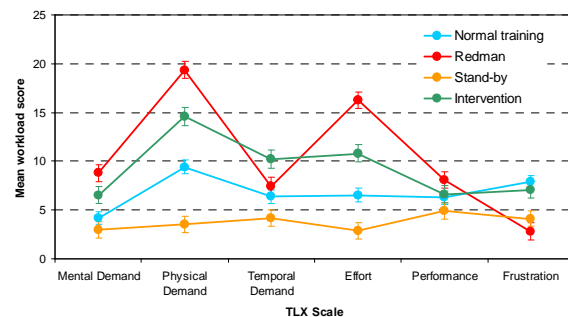
### Linear Mixed Modeling (LMM)

LMM was used to test the effect of cluster membership, task, workload facets and their interactions on workload scores. The main effects of task and workload facets and the interaction effects task  $\times$  scale and cluster  $\times$  scale were significant at .001 (Figure 2 and 3).

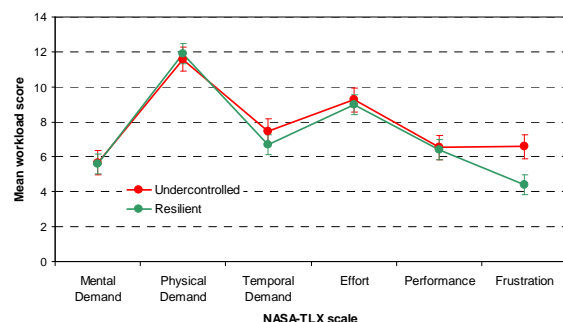
Post-hoc tests showed that Undercontrolled officers reported higher levels of Frustration than Resilient ones.



**Figure 1** Cluster profiles. BFI=Big Five Questionnaire (Caprara et al., 1993; E=Extraversion, A=Agreeableness, C=Conscientiousness, ES=Emotional Stability, O=Openness); SOS=Safety Organizing Scale (Vogus & Sutcliffe, 2007); BDI=Beck Depression Inventory (Beck et al., 1979); STAI=State-Trait Anxiety Inventory (Spielberger et al., 1983); MBI=Maslach Burnout Inventory (Maslach & Jackson, 1981); PE=Professional Exhaustion; LE=Loss of Empathy, PF=Personal Fulfillment; JQ=Job Content Questionnaire (Karasek et al., 2007; D=Demand, C=Control, S=Support); ERI=Effort-Reward Imbalance (Siegrist et al., 2004; EF=Effort; RW=Reward, OC=Over-Commitment)



**Figure 2** NASA-TLX Scale by Task interaction plot



**Figure 3** NASA-TLX Scale by Cluster Membership interaction plot

## Discussion

The results of this study are consistent with those of Rose et al. (2002) and Eysenck and Eysenck (1985), that reported that individuals high in neuroticism often exhibit the same level of performance effectiveness as their low neuroticism counterparts, but that the resource and effort expenditure is often greater for these individuals, hence a higher level of perceived frustration.

Given the likely association of frustration with unnecessary violence, the results of this study support the use of personality assessment in the selection SFPOs to be employed in delicate tasks such as riot control.