

**EVALUATION OF A PSYCHOLOGICAL SELECTION INSTRUMENT ("SOAP":
SELECTION OF ANTARCTIC PERSONNEL)**

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To test the potential advantage of including a psychological test battery to the selection process for service in the Antarctic, applicants for over winter employment at British Antarctic bases have been screened with a battery consisting of nine well-known psychological instruments. The data from this battery were not available for the British Antarctic Survey (BAS) selection panel. The selection panel accepted 170 from a total of 381 applicants for service in the Antarctic, based on operational criteria, interview, and a general medical examination. During the winter season personnel (46 for one winter, and 75 for two winters) were surveyed with questionnaires and saliva samples for cortisol analyses, and interviewed during the immediate post winter period, usually during the voyage home from Antarctica. Performance and adaptation were evaluated based on reports from base commanders, the debriefing interviews, and subjective health complaints during the stay.

There were no significant agreements between the selection panel and the SOAP battery (all Cohen's Kappas for inter-rater agreement <.20). Participants characterized as exceptionally well adapted had higher scores on "Openness" on the NEO-FFI (the "big five" personality inventory), 23 of the 26 with highest adaptability rating had high scores on this subscale (OR 8.5). They also had higher level of emotion focussed coping (OR 2.7), and low level of subjective health complaints (OR 2.9). Women had higher rate of success than men, but were less likely to be selected. Similarly, the SOAP also predicts poor performance. Twenty participants rated as "poor" had low scores on Interpersonal Capabilities (ability to adapt to the situation, OR 5.5) and high levels of Defensive Hostility (OR 7.0). A combination of these two scores picked out 19 of the 20 poor performers. In addition, the poor performers also have low scores on "Agreeableness" (the motivation to maintain positive relations with others, also from the NEO-FFI) (OR 4.8).

Adding a psychological test battery may improve the odds for selecting good performers, and reducing the odds of selecting poor performers.