

IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)
Behaviour, Performance and Psychosocial Issues in Space (1)

Author: Ms. Sara Ahmadian
University of British Columbia, Canada, sara.ahmadian.bc@gmail.com

Dr. Jelena Brcic
University of British Columbia, Canada, jelenabrcic@psych.ubc.ca
Ms. Irina Della-Rosa
University of British Columbia, Canada, irina.vartan@gmail.com
Prof. Phyllis Johnson
University of British Columbia, Canada, phyllis.johnson@ubc.ca
Dr. Peter Suedfeld
University of British Columbia, Canada, psuedfeld@psych.ubc.ca

WHAT DO ASTRONAUTS TWEET ABOUT? A LINGUISTIC ANALYSIS.

Abstract

Previous research has shown that the words that we use provide insight into our thoughts, emotions and ideas and thus can be used to understand the psychological state of the speaker. Ever since 2009 astronauts have used Twitter to post pictures and communicate while in space. The present study analyzes the content of astronauts' tweets to further understand the changes in their psychological state while in space. We collected tweets from 14 astronauts during three periods; six months before their flight, on orbit, and six months following their return. These tweets were analyzed using Pennebaker's Linguistic Inquiry and Word Count (LIWC), a computerized text analysis software that counts words in psychologically meaningful categories. Our results indicate that astronauts psychological state, as measured through their written tweets, changed while in Space. Specifically, the proportion of words regarding affiliation, drives, religion, home, social and affect significantly increased while on orbit compared to six months before flight and six months after return. These results can be used to further understand the psychological effect of space flight and point to a possibility of using twitter as a means to measure psychological changes in astronauts