Significance of light and social cues in the maintenance of temporal organization in man

Winget, C. M.; **DeRoshia**, C. W.; Ogawa, K. H.; Holley, D. C. NASA Center for AeroSpace Information (CASI) Physiologist, Supplement, 32, S95-S96, Feb 1, 1989

The effects of light:darkness (LD) cycles and social interaction on the response to long-term confinement (105 days) were investigated experimentally in three groups of three male subjects aged 20-24 years. Data from measurements of physiological parameters indicating changes in circadian rhythms are presented in graphs and analyzed; it is found that the LD-induced rhythm changes observed in previous studies of subjects isolated singly do not appear when subjects are confined in groups of three, suggesting a positive adaptive effect of social contact. In one subject who was transferred to a different group at day 84, hostile social interactions and poor circadian-rhythm entrainment were observed; the possible reasons for this response are considered.