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The Dynamic Adjustment of Physical Self in Adults

Fortes, M., G. Ninot, and D. Delignières. University of Montpellier I

This study examined the dynamics of global self-esteem and physical self-perception in 8 sedentary adults. Each participant completed the shortened version of the Physical Self-Inventory, which measured global self-esteem (GSE), physical self-worth, and 4 physical subdomains, every day between 7 and 9 a.m. and 7 and 9 p.m. over the Year 2001. Two weeks later they completed the same inventory in an isolated room every 5 minutes for 4 hrs and 15 min. The time series analysis (auto-regressive integrated moving average procedures) showed that the dynamics of GSE and physical self-dimensions were nonstationary over 2 consecutive semesters or 1 year in ecological environment. The perceived dimensions exhibited noisy fluctuations around a slowly varying mean (moving average model). Inversely, the time series obtained in an isolated room showed 88% random oscillations around a local value. This study showed the same dynamics of global self-esteem and physical self scores over 2 consecutive periods of 6 months in the 8 sedentary adults living in their own ecological environment. The individuals exhibited noisy fluctuations around a slowly varying mean. When the environmental impact was restrained to a minimum for several hours, the dynamics showed massively only white noise fluctuations around a stable value. The ARIMA procedures provided a quite reasonable model of the psychological processes underlying the dynamics of self-esteem and physical self.