Is Static Spatial Performance Distinguishable From Dynamic Spatial Performance?  
A Latent-Variable Analysis

Mª JOSÉ CONTRERAS  
ROBERTO COLOM  
JOSÉ M. HERNÁNDEZ  
JOSÉ SANTACREU

ABSTRACT.
There is disagreement among researchers about the distinction between dynamic and static spatial performance. Given that dynamic spatial performance is supposed to be important for some occupations, such as air traffic control (ATC), it is germane to have evidence about the likelihood of that distinction. In the present study, a battery of printed static spatial and reasoning tests were applied to 480 applicants for an ATC training course. Two dynamic spatial tests were also applied. Confirmatory factor analyses were performed for testing three models. In Model A, static and dynamic spatial tests were grouped, whereas in Model B, spatial tests were separated according to their static or dynamic character, and in Model C, spatial tests were segregated according to the construct they tapped (visualization or spatial relations). The authors found that Model B, which distinguished static and dynamic spatial tests, showed the best fit. They also discuss some implications of the findings.

Keywords: air traffic control, confirmatory factor analysis, dynamic spatial tests, spatial ability, static spatial tests.

More information: mjcontreras@psi.uned.es