ORIGINAL ARTICLE

Corsi Blocks Task Complexity Effects in People with Intellectual Disabilities

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ABSTRACT

The Corsi blocks task, a widely used measure of spatial short-term memory, has been used for some investigations of people with intellectual disabilities (ID) of unknown etiology, but evidence of its efficacy is mixed. To clarify those mixed results, this study examined the effects of the path configuration complexity in the Corsi blocks task on people with ID of unknown etiology. This study also examined the interaction of the path configuration complexity and recall directions.

Participants were 12 people with ID of unknown etiology (4 female, 8 male; mean CA = 33.82 yr, SD = 8.69, range 21–46 yr). Forward and backward versions of the Corsi blocks task were administered. Participants received simple sequences involving short distances between blocks without path crossings or complex sequences involving long distances between blocks with one path crossing.

Results demonstrated that complex sequences were more difficult to recall than simple sequences. No difference in performance was found between recall directions. Furthermore, results exhibited interaction of the complexity of the path configurations and recall directions. Especially in the backward version of the Corsi blocks task, the path configuration complexity affected performance in people with ID.

Results imply that spatial processing involved in the backward version of the Corsi blocks task might play a key role in the results. Future research with more sophisticated design must be conducted to clarify this matter.

<Key-words>
spatial short-term memory, working memory, backward recall, path configuration

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