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Editorial

CHC theory and the human cognitive abilities project: Standing on the shoulders of the giants of psychometric intelligence research

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Abstract

During the past decade the Cattellâ€“Horn Gfâ€“Gc and Carroll Three-Stratum models have emerged as the consensus psychometric-based models for understanding the structure of human intelligence. Although the two models differ in a number of ways, the strong correspondence between the two models has resulted in the increased use of a broad umbrella term for a synthesis of the two models (Cattellâ€“Hornâ€“Carroll theory of cognitive abilitiesâ€”CHC theory).

The purpose of this editorial is three-fold. First, I will describe the CHC framework and recommend that intelligence researchers begin using the CHC taxonomy as a common

nomenclature for describing research findings and a theoretical framework from which to test hypotheses regarding various aspects of human cognitive abilities. Second, I argue that the emergence of the CHC framework should not be viewed as the capstone to the psychometric era of factor analytic research. Rather, I recommend the CHC framework serve as the stepping stone to reinvigorate the investigation of the structure of human intelligence.

Finally, the Woodcock-MuÃ±oz Foundation Human Cognitive Abilities (HCA) project, which is an evolving, free, on-line electronic archive of the majority of datasets analyzed in Carroll's (1993) seminal treatise on factor analysis of human cognitive abilities, is introduced and described. Intelligence scholars are urged to access the Carroll HCA datasets to test and evaluate structural models of human intelligence with contemporary methods (confirmatory factor analysis). In addition, suggestions are offered for linking the analysis of contemporary data sets with the seminal work of Carroll. The emergence of a consensus CHC taxonomy and access to the original datasets analyzed by Carroll provides an unprecedented opportunity to extend and refine our understanding of human intelligence.

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Keywords

Intelligence; Cognitive abilities; Factor analysis; John Horn; John Carroll; HCA; Gfâ€“Gc theory; Cattellâ€“Hornâ€“Carroll Theory; CHC theory

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