# COMPLEXITY NAVIGATION TEST (CNT)

## JP AND THE CNT: A PROUD HISTORY

Joint Prosperity has a long history with the CNT and its founder, Alexis Retief. Having been involved in its initial research JP has been a CNT licensee, and the original CNT business partner since inception of the CNT business in 2002. With this, has come deep insight and experience in applying the CNT to assist individuals and organisations understand and leverage the potential of their current and future, leaders and leadership teams.

Joint Prosperity has developed extensive experience in using the CNT in more than 50 organisations and across over 30 industries. We have worked over a broad geographical base, applying CNT technologies within Africa, Australia, Europe and the Middle East. Our passion for and expertise in Africa and emerging markets has led us to successfully utilise the CNT across a large number of African countries, including South Africa, Kenya, Nigeria, Zimbabwe, Mozambique, Uganda, Zambia, Botswana, Tanzania, Mauritius, Namibia and Ghana.

In 2012, JP and Complexity Metrics embarked on a joint venture and launched an interactive, online version of the CNT, aptly called the eCNT, enabling global accessibility and reach.

## WHAT IT MEASURES

The Complexity Navigation Test (CNT) is a psychological test that assesses how people navigate the complexities of everyday and work problem- solving. It is based on stratified systems thinking (SST) and complexity theory and measures an individual's ability to manage the demands of various levels and types of work problem-solving.

The assessment distinguishes people who can cope with the complexity of strategic problem solving from those whose strengths lie in the area of operational work. Within these parameters, finer sub-distinctions relating to various types of operational and strategic problem solving can be drawn, as well as the individual's cognitive flexibility, mental efficiency, ability to manage ambiguity, work through 'noise', and integrate and apply learning.

**The CNT extends and refines existing SST approaches significantly and is unique on two indices:**

It is a dynamic process assessment of how a person's style of solving problems interacts with the ability to process different levels of complexity;

It is the first ability assessment approach based in complexity theory.

## THE ASSESSMENT PROCESS

The CNT uses a set of universally recognisable symbols printed on playing cards. The assessor takes each candidate through several card games and the candidate is tasked with working out what rule system governs that particular game. It relies on symbols and therefore does not discriminate on the basis of education, race, language, prior learning, culture and is thus globally applicable. The CNT takes approximately an hour to administer and provide feedback to the candidate while the eCNT takes a little longer (approximately 90 minutes). Verbal feedback is provided to the candidate immediately following their completion of the assessment.

## DEVELOPMENT AND STANDARDISATION

The CNT was developed in South Africa over a period from 1995 to 2001 by Dr. Alexis Retief and a group of associates. It was designed to expand and revise the theory of general and work ability assessment and to improve the assessment methods involved. In developing the theory of human abilities, it takes existing SST principles further and expands them into a theory of the hierarchical thinking processes used in coping with complex systems. It sees problem-solving as the dynamic and creative navigation of complex landscapes that people cope with every day, in work and in general problem-solving.

The assessment time required is less than was needed with previous approaches and the assessment method is standardized and structured. Results cannot be influenced by interpretation. This results in the high reliabilities found.

The CNT is a classified and certified Psychological Test with the HPCSA and can therefore be utilized for development and decision making.

## RESEARCH

To date, over 18 000 people have been assessed using the CNT and eCNT. Regular data analysis indicates consistently high levels of reliability and validity. Inter-rater correlations of 0,86 were obtained with different kinds of validity being investigated. Validity in predicting the potential and progress of groups was in the range of 0,91-0,96. Validity in predicting individual ability and progress was 0,35 (very close to an upper bound of 0,40 for the appropriate coefficient).