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## **Self-Referential Analogies, Problems Solving and Power Tests**

**ABSTRACT.** This article will focus on particular analogies: self-referential analogies. Self-reference is probably one of the most complex semantical products necessitating minimal initial knowledge. It is also the essential component of mathematical proofs like Gödel's first proof of incompleteness, Russell's paradox of "Set of the sets that do not contain themselves" and of artistic works like Escher and Magritte paintings and drawings. Analogies appear to be an excellent tool to build original, powerful and subtle self-references. Some of these interesting and surprising self-referential analogies can be found in Power Tests. Indeed, Power tests provide an excellent context to develop powerful items with minimal knowledge, particularly by using analogies, one of the simplest structures. The notion of self-reference as expression of the consciousness of its own existence will be developed and illustrated through three-parts analogies, leading to the birth of a new paradigm where classical consciousness appears to have two sisters: infra-consciousness and supra-consciousness. Finally, on the basis of these developments, a classification of levels of abstraction and cognitive abilities related to problems solving will be proposed.

**KEYWORDS:** self-reference, analogy, power test, logico-divergence, consciousness

### **1. What is a Power Test?**

A Power Test is an IQ test more difficult than a classic IQ test but without a time limit to find the solutions to the items. The main bias in classical IQ tests is the time limit. Because of this time bias, classical IQ tests cannot contain too complicated items. In addition, Power tests are not supervised. The first Power test was created in the Seventies by an American named Ron Hoeflin. He created the Mega test, the "test of the million" intended to serve as an admission test to a very selective high IQ society in