ABSTRACT

Human beings are the only mammals to be able to utilize high-level cognitive functions to build knowledge, innovate, and communicate their complex ideas. Imagination, creativity, and innovation are interlinked in the sense that one leads to the other. This chapter details the concepts of imagery, imagination, and creativity and their inter-relationships in the first section. Next, the author discusses the historical perspectives of imagination pertaining to the accounts of famous philosophers and psychologists like Aristotle, Kant, Hume, Descartes, Sartre, Husserl, and Wittgenstein. Section 3 and 4 present the neuro-biological correlates of imagination and creativity, respectively. Brain regions, neuronal circuits, genetic basis, as well as the evolutionary perspective of imagination and creativity are elicited in these sections. Finally, creativity and innovation are explored as to how they will contribute to knowledge build-up and advances in science, engineering, and business in the fourth industrial revolution and the imagination age.
INTRODUCTION

Come with me and you’ll be
In a world of pure imagination
Take a look and you’ll see
Into your imagination
We’ll begin with a spin
Trav’ling in the world of my creation
What we’ll see will defy

Explanation
(Bricusse & Newley, 1971, track 5, verse 1)

The excerpt above has been taken from the 1971 movie Willy Wonka and the Chocolate Factory. In the scene featuring this verse, Willy Wonka (played by Gene Wilder) sings this song, titled “Pure imagination”, while introducing the golden ticket winners to the Chocolate Room of his chocolate factory. We see the extraordinary world Willy Wonka has created because of his imagination where there is a chocolate waterfall, a chocolate river, toadstools made of candy and cream, trees with candy and giant gummies as fruit, giant lollipops growing as if from the grass, etc.; a chocolate lovers’ delight! Here is a fictional example of how pure imagination can give rise to fantastic creations. In real life too, there are numerous examples of such feats, be it in art, music, scientific discoveries and inventions, entertainment, engineering, medicine, architecture, construction, business, etc. In everyday life, everyone uses their faculties of imagination and creativity in dealing with everyday situations and making decisions, responding to novel changes in their environment, and the like.

Imagination, creativity and innovation are factors that contribute to an animal’s intelligence and not all species share these traits. Imagination and creativity are the high-level cognitive functions of the brain that make us human. Rudimentary imaginative and creative abilities have been shown to be present in bees, ants, birds, rats, and the great apes (see McNamara et al., 2007; Gould, 1990; Wehner & Menzel, 1990; Durier et al., 2003; Visalberghi & Fragaszy, 2001; Layman, 2010; Mitchell, 2012; Soler et al., 2014). However, human beings are the only mammals to be able to utilise these functions to build knowledge, innovate, discover, invent and communicate their complex ideas. Imagination and creativity are interlinked in the sense that one leads to the other. Innovation stems from creativity as has been reported by many scientists, researchers, entrepreneurs, inventors and geniuses. Thus, all these concepts are inter-related in one way or another. This chapter begins with the concepts of imagery, imagination and creativity and their relationships in the first section. Next, the author discusses the historical perspectives of imagination pertaining to the accounts of famous philosophers like Aristotle, Kant, Descartes
Conceptual Framework for Enhancing the Implementation of Specific Microfinance Policies in Sub-Sahara Africa
www.igi-global.com/article/conceptual-framework-for-enhancing-the-implementation-of-specific-microfinance-policies-in-sub-sahara-africa/234352?camid=4v1a

Leading in a Knowledge Era: A New Dawn for Knowledge Leaders
www.igi-global.com/chapter/leading-knowledge-era/58197?camid=4v1a