The Philosophy of Creativity

By Sandra M. Dingli

I am a Professor at The Edward de Bono Institute for Creative Thinking and Innovation at the University of Malta. I set up the Institute in collaboration with Professor Edward de Bono in October 1992 and my publications include Creativity and Strategic Innovation Management (2017) with M. Goodman as co-author and a chapter on 'Thinking Outside the Box: Lateral Thinking as an Educational Innovation' in The Routledge Companion to Creativity (2008) edited by T. Rickards, M. Runco and S. Moger. I enjoy the opportunities which new technology offers in today's 'flat' world, especially when this involves networking and international collaboration. My research interests include creativity, innovation management, foresight, innovation and digital technology and the philosophy of artificial intelligence.

What is creativity? How does creativity come about? Is it possible to nurture creativity and to improve one's creative potential? Does creativity only pertain to the arts, or is it a more multi-faceted concept? What specifically does creativity consist of, particularly if one were to adopt a reductionist approach? This article first introduces the topic of creativity, followed by a discussion of the views of various philosophers. It concludes with a summary and some reflections.

Although many people consider creativity to belong to the creative arts, which are mainly composed of literature, music, and theatre, there are countless areas to which creativity may be applied. Way back in 1961, Rhodes recognized the fact that creativity may be shaped by four separate types of influence. A person may be considered to be creative, mainly due to the fact that they either produced something extraordinary or because they tend to come up with ideas that are original, surprising and add value which was not previously present. A creative product (or service) is something which is tangible, and which is produced as a result of an original thought. Process, the third element which Rhodes (1961) recognized, is either the thinking or actualization process that goes on in a person's brain when they come up with a novel idea. This generally involves idea generation (which does not necessarily mean a stroke of

inspiration), followed by communication of the idea selected and its subsequent evaluation, sometimes leading to actualization. Process could also refer to the method or route taken in order for a product or service to be either manufactured or offered to prospective or current clients. In other words, this could be the manufacturing process for a tangible product or the process behind digital transactions such as online shopping or online banking. The fourth element is 'press' which really means context or environment. The context may either be favorable, in which case it would nurture creative persons with novel ideas, or it may be disadvantageous or negative, such as in the case of deprivation or challenges which one attempts to overcome.

Creativity began to be recognized as an academic discipline following J.P. Guilford's (1897 – 1987) presidential address to the *American Psychological* Association in 1950, published in the *American Psychologist* later that same year. Creativity, in his view, included divergent thinking (the ability to generate numerous solutions or possibilities), convergent thinking (narrowing down and selecting the best solution or possibility) and the ability to restructure problems in a novel manner, where creative individuals could generate innovative solutions. In his view, creative persons were capable of both divergent and convergent thinking and of generating innovative solutions to problems they were faced with.

Philosophy of creativity

Does the concept of creativity imply the production of something new and original or does it involve the combination of already existing ideas and concepts to come up with a novel idea? Philosophical ideas tend to hinge on both sides of this debate and philosophers have expressed various opinions related to creativity.

Plato (c.428-347 BCE)

Plato's obsession with truth and its revelation by means of dialogues in *The Republic* led him to view creativity as something that was mystical and divinely inspired, grounded in eternal forms, rather than a merely human skill. In his view, creative works, such as those generated by poets and artists, were simply imitations or representations of reality. His concern was that false representations of reality could lead people away from the truth and he banned poets and artists from his ideal society. Therefore, creative ideas or products could only be truly good if they were based on eternal forms which exist independently from the physical world. In this regard, the physical world in which we live is simply a shadow or image of the ideal realm of forms, as is evident from his well-known allegory of the cave where the persons in the cave are only capable of seeing shadows and not the true reality. Ideal forms are timeless and unchanging, they transcend time and space, while the physical world encompasses constant change and imperfection.

Aristotle (384 – 322 BCE)

Aristotle's views, mainly presented in the *Poetics* and *Metaphysics*, offer a sharp contrast to those of Plato. In the *Poetics* he was mainly concerned with dramatic poetry and theatre (as an analysis of tragedy). He claims that history deals with particulars, while tragedy deals with universals that evoke emotion and some form of catharsis. Therefore, poetry (which we may take to include tragedy) is more philosophical than history. The former deals with universals and it presents the observer with future possibilities, while the latter merely records events as they happen. Creativity, in his view, brings into being something that did not previously exist, it is an essential part of human nature and closely linked to reason. The concept of '*telos*' (purpose, final goal)

played an important role in Aristotle's philosophy. This is linked to creative works which, he claimed, not only revealed something about the nature of reality but were created with a specific purpose.

Immanuel Kant (1704 – 1824)

Immanuel Kant linked creativity to art and aesthetics in his *Critique of Judgement*. In his view, humans have a unique capacity for imagination and for producing something novel and original. Artistic creations are first conceived in the mind, following which an artwork is created. Harmony, beauty, autonomy, and genius play a key role in Kant's thinking. Although the Kantian artist is a rule-breaker, an artwork may be considered to be beautiful due to its harmonious combination of form and content, and this arises from creative genius. Autonomy is manifested through creative acts where one's unique perspective is conveyed.

Fredrich Nietzsche (1844 – 1900)

Creativity was a powerful force through which humans flourished, according to Fredrich Nietzsche whose *Übermensch* (superman) embodies the highest possible form of creativity. One attribute of Nietzsche's *Übermensch* is courage, through which convention, tradition and society's constraints are challenged and overcome. Nietzsche's *Übermensch* does not merely follow or obey set rules or laws. Rather, the *Übermensch* lives according to their own rules and creates a more profound, authentic, and meaningful way of life.

Arthur Koestler (1905 – 1983)

Arthur Koestler's *The Act of Creation* (1964) describes the processes underlying creativity in science and art. Koestler claims that creativity comes about through a process of what he calls 'bisociation', where two unrelated ideas are combined, resulting in novelty and surprise. This applies to all topics, regardless of whether they pertain to the arts, sciences or to everyday life.

Margaret Boden (b.1936)

In *The Creative Mind: Myths and Mechanisms* (1990, 2004), Margaret Boden claims that there are cases where we can acknowledge artificial intelligence to be creative and this enables us to learn more about human creativity. Boden's definition of creativity is probably one of the more widely accepted, and she describes it as:

Creativity is the ability to come up with ideas or artefacts that are new, surprising, and valuable. "Ideas," here, includes concepts, poems, musical compositions, scientific theories, cooking recipes, choreography, jokes ... and so on, and on.

"Artefacts" include paintings, sculpture, steam-engines, vacuum cleaners, pottery, origami, penny-whistles ... and you can name many more' (2004, p.1).

Boden further states that:

creativity enters into virtually every aspect of life. It's not a special 'faculty,' but an aspect of human intelligence in general. In other words, it's grounded in everyday abilities such as conceptual thinking, perception, memory, and reflective self-criticism. So it isn't confined to a tiny elite: every one of us is creative, to a degree' (2004, p.1).

Boden draws a distinction between psychological creativity (where the idea is new to the person who comes up with it) and historical creativity (where no one else has had that idea). She further claims that creativity may come about either through the combination of familiar ideas, as Koestler had claimed, alternatively, it may come about through exploration or through the transformation of conceptual space (meaning structured styles of thought). She further argues that computers may be programmed to generate creative ideas using all three methods, that is, combining ideas, exploring, or transforming conceptual space. One example she provides is that of AARON, conceived by Harold Cohen. This is an AI art generating program that is capable of exploring conceptual space, capable of drawing and coloring, and whose art is exhibited in various art galleries worldwide. It would be interesting to hear Boden's views on more recent AI programs such as the AI chatbot ChatGPT, launched in November 2022 by Sam Altman, the founder of OpenAI. ChatGPT may be used to generate conversations and to create content. Google, the well-known search engine, has launched its own AI chatbot, Bard, to rival Chat GPT. At the moment, Bard is being Beta Tested (February 2023), so it is not yet available for public use. Whether these AI chatbots will eventually be capable of exhibiting creativity remains to be seen.

Edward de Bono (1933 – 2021)

Edward de Bono was a prolific writer with over 85 books published. He dedicated most of his life to advocating for the teaching of thinking and claimed that creativity is not something we are born with, but it is a skill which, like any other skill, may be developed with practice. de Bono is the inventor of the term 'lateral thinking' which he contrasts with vertical thinking. While the latter relies only on logic, lateral thinking, which allows one to follow a systematic process to generate ideas, provides specific methods which enable one to create 'new patterns' rather than remaining 'stuck' in habitual ways of thinking. de Bono devised various other

creativity and thinking tools which are simple and easy to use. His techniques have been adopted by educational institutions, organizations, and individuals worldwide. His publications are replete with examples of how individuals or organizations used his techniques to generate original ideas and achieve success.

Philosophy of science

Other trailblazers who published their work on this and other related topics include the philosophers of science who include Karl Popper, Thomas Kuhn (who came up with the concept of paradigm shifts) and Paul Feyerabend. All three discuss the methods that scientists use and the conclusions they draw and all three proposed different ways in which they considered science to develop and progress.

Conclusion

This brief discussion on the philosophy of creativity raises a number of questions and reveals the complexity of the topic under discussion. To begin with, there is no consensus on one definition of creativity, although Boden's views are broadly accepted as creativity undeniably involves originality, surprise, and positive value. However, this view disregards the so-called 'dark side of creativity.' Original ideas may be used in destructive or socially unacceptable ways. The war machine, for example, has undeniably created a fascinating amount of innovative technology including stealth aircraft, which cannot be detected by radar, and various types of unmanned vehicles. Will AI be enabled to take decisions on the battlefield in the future? Will these decisions exhibit creativity? Can we apply the notion of creativity to AI? What about the creativity exhibited by some criminals?

This is why it is relevant to include the attribute of positive value to something or someone considered to be creative, although there are borderline cases, such as the invention of nuclear fission, which produced the destructive atom bomb, but which generates clean energy, even though radioactive waste is produced which is difficult to store or to dispose of and any leakages or accidents could be disastrous. Both convergent thinking and divergent thinking are required for creativity to occur as ideas are generally first generated, then evaluated and later communicated. Established patterns of thinking in the brain need to be applied in both a logical and lateral manner.

Is creativity a skill, as de Bono claims it is, and can it be taught? What is the link between creativity and intelligence? Are persons born creative or can creativity be nurtured? Is creativity something that is 'divinely inspired,' as Plato claimed it is?

These and other questions remain to be addressed. Whether sufficiently acceptable answers will emerge is another matter. After all, those who look towards philosophy to have their questions answered tend to remain disappointed as philosophy, including the philosophy of creativity, raises more questions than it answers.

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"There is no doubt that creativity is the most important human resource of all. Without creativity, there would be no progress, and we would be forever repeating the same patterns."

EDWARD DE BONO