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Medicine

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Introduction

The relationship of medicine to creativity can be understood from historical and developmental perspectives. The current epistemological foundation of medicine is rational empiricism – an emphasis on phenomena that are measurable, quantitative and apprehended in a rational, analytical manner. Non-rational phenomena such as imagination, inspiration, and intuition – while important in the creative process – currently have an attenuated emphasis in medicine.

The emergence of rational empiricism in contemporary medicine can be traced historically. As discussed by Laurence [Kirmayer \(2006\)](#); 16th century Renaissance physicians such as Paracelsus placed imagination in a central role. According to Paracelsus all manifest phenomena - including those specific to medicine and healing - were understood as flowing from an act of creative imagination - an act that allowed trans-rational, celestial influences to impact upon the material world. But, foundational shifts occurred in medicine as western culture transitioned into the Enlightenment of the 17th and 18th centuries. Enlightenment thinkers were suspicious of any phenomena that could not be subjected to logic, reason and rational analysis. Non-rational phenomena such as the imagination were categorized a priori as irrational – without logic, reason and baseless – and imagination was rendered a groundless and illusory force. From the Enlightenment perspective the imagination became equated with the *imaginary* – the untrue, unreal and fanciful.

The countertrend to this diminishment of the imagination was represented by the emergence of Romanticism in the late 18th to mid-19th centuries. For the Romantics the non-rational force of the imagination surpassed conscious reason's ability to fully apprehend the depth of human experience. Ultimately, the tension between rationality and non-rationality contributed to a bifurcation between the arts and the sciences. In the sciences rational analysis and empirical proofs dominated, while in the arts non-rational phenomena such as imagination and inspiration were highly regarded and valued.

Western medicine developed in synchrony with these broader cultural trends and foundationally aligned itself with the sciences - adopting a singular focus on rationality. This alignment has endured. Over the past several decades it has been typified by the dominant position afforded evidence-based medicine (EBM). As stated by The [Evidence-Based Medicine Working Group \(1992\)](#) it: "de-emphasizes intuition, unsystematic clinical experience, and pathophysiological rationale as sufficient grounds for clinical decision making and stresses the examination of evidence from clinical research." EBM has made a substantial contribution by solidifying a rationally grounded scientific foundation for the practice of medicine. In addition, EBM is evolving - becoming more attuned to patient values, individual differences and clinical expertise. Yet the singular emphasis of EBM remains on rational processes, leaving it out of full alignment with the more complex processes that animate creative discovery. With regard to research, Desmond Sheridan and Desmond Julian noted the following:

Almost all research activity currently undertaken in support of EBM involves evaluations of existing evidence to determine the best available, usually in the form of systematic reviews, and this form of research has expanded greatly since the launch of EBM. This is quite different from original science, which seeks to explore and discover new knowledge ([2016, p. 211](#)).

In contrast to the singular, rational focus prominent in medicine, creativity is bimodal, and includes both rational and non-rational elements. The neuroscientists [John Kounios and Mark Beeman \(2015\)](#) provided support for this perspective by defining two distinct but interdependent modes operative in the creative process – a conscious, rational, *analytical* mode and an unconscious, non-rational, *insightful* mode. Kounios and Beeman described the analytical mode as one where solutions are arrived at in a rational