CHAPTER FOURTEEN

THE THREE DOMAINS OF CREATIVITY

Arthur Koestler

I Introduction

This paper attempts to give a condensed outline of a theory I have set out in detail in my book on creativity and to carry that theory to the next step.¹ The proposition I shall submit is, in a nutshell, that the conscious and unconscious processes which enter into all three forms of creative activity have a basic pattern in common. When I speak of three forms of creativity, I mean the domains of artistic originality, scientific discovery, and comic inspiration. I believe that all creative activity falls into one or another of these three categories or, more frequently, into some combination of them. If you speak, for instance, of cooking as ‘creative,’ you automatically imply that cooking is either an art, or a science, or both.

As a first step toward describing that pattern, let us try something simple like this: The creative act consists in combining previously unrelated structures in such a way that you get more out of the emergent whole than you have put in. This sounds like making a perpetuum mobile, and in a sense it is, because mental evolution, like biological evolution, seems to contradict the second law of thermodynamics, which contends that the universe is running down as if afflicted by mental fatigue. But we will not go into this; instead, let me illustrate by a few schoolbook examples what I mean by combining two previously unrelated structures.

The motions of the tides have been known to man since time immemorial. So have the motions of the moon. But the idea to relate the two, the idea that the tides were due to the attraction of the moon, occurred, as far as we know, for the first time to a German astronomer in the seventeenth century, and when Galileo read about it, he laughed it off as an occult fancy. Moral: The more familiar each of the previously unrelated structures are, the more striking the new synthesis and the more obvious it seems in the driver’s mirror of hindsight.

The history of science is a history of marriages between ideas, which were previously strangers to each other, and frequently considered incompatible. Lodestones—magnets—were known in antiquity as some curiosity of nature. During the Middle Ages, they were used for two purposes: as navigators’ compasses and as a means to attract an estranged wife back to her husband. Equally well known were the curious properties of amber, which, when rubbed, acquires the virtue of attracting flimsy objects. The Greek word for amber is elektron, but the Greeks were not much interested in electricity, nor were the Middle Ages. For nearly two thousand years, electricity and magnetism were considered separate phenomena, in no way related to each other. In 1820, Hans Christian Oersted discovered that an electric current flowing through a wire deflected a compass needle, which happened to be lying on his table. At that moment the two contexts began to fuse into one—electromagnetism—creating a kind of chain reaction which is still continuing and gaining in momentum; forever amber.

From Pythagoras, who combined arithmetic and geometry, to Einstein, who unified energy and matter in a single sinister equation, the pattern is always the same. The Latin word cogito comes from coagitare, ‘to shake together.’ The creative act does not create something out of nothing, like the God of the Old Testament; it combines, reshuffles, and relates already existing but hitherto separate ideas, facts, frames of perception, associative contexts. This act of cross-fertilization—or self-fertilization within a single brain—seems to be the essence of creativity. I have proposed for it the term bisociation. It is not a pretty word, but it helps us to make a distinction between the sudden leap

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3 I owe the term “Haha reaction” to Dr. Brennig James’s paper, “The Function of Jokes,” (unpublished), which he kindly sent me.