Research Article

Re-calling Magical Thinking: Different, yet Connected Views on Magical Thinking

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This essay recalls the concept of 'magical thinking' and provides a scooping description of its utilitarian value. 'Magical thinking' is a classic notion in cognitive anthropology, and it is seen as a utilitarian cognitive pattern that provides a platform to practice magico-religious beliefs and to build confidence in the operational efficacy of these belief practices. In cognitive psychology, magical thinking is irrational reasoning that involves thoughts, objects, and events with no actual causal link. During COVID-19, we have witnessed an 'extension' of germ theory in the form of a consensus between magical and causal thinking. We learned how dangerous a 'touch' might be, and that led to a socio-cognitive script of fear of physical contact during COVID-19. With a primary objective of introducing the concept, this essay is about how so-called 'primitive' thought patterns of magical thinking may be triggered and utilized by providing a causal connection between two events that are not evident otherwise.

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Regarding the concept of magical thinking in anthropology, two laws of thought are significant that were presented by Frazer (1925), as the *Law of Similarity* "like produces like" and the *Law of Contact* "once in contact as always in contact". These laws (which will be described later) inform about the human tendency to create a causal connection between two events that is not evident otherwise. Usually, it is done through magical thinking to explain the unexplained and to feel secure using the interpretation of the so-called causal connection. I argue that magical thinking in several magico-religious belief practices serves to theorize the essential link between mental and social representation of the events in their social and cultural context. The utilitarian value of this essential

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link not only situates the role of magical thinking in belief but also provides a platform to practice magico-religious beliefs and to build confidence in the operational efficacy of these belief practices. During my ethnographic study on childcare belief practices in rural Punjab (Qamar, 2015; 2016; 2017: 2018), I found that magical thinking provides practical support for healthcare belief practices and increases the sense of efficacy and confidence among the people who practice beliefs. Hence, even though magical thinking is seen as irrational, I emphasize it as a thinking pattern that rational thoughts cannot eliminate. We often use magical thinking as a reinforcement for belief practices that enable us to cope with anxiety and stress.

Magical Thinking

Magical thinking is a form of reasoning that relates mysterious and unusual events to a nonscientific perspective. It is a belief that one's actions can affect the outcome of some chance event, when in fact its likelihood is independent of those actions (Ayala, 2014). Magical thinking provides the reasoning for the magical actions that most likely meet the desired ends. It involves the interpretations of the connection of events around us but doesn't involve the revision of belief after further observation (Tukey et al., 2006). The following are some definitions of magical thinking.

Alcock defines magical thinking as, "the interpreting two closely occurring events as though one caused the other, without any concern for the causal link" (Alcock, 1995, p.16). Alcock also points out the neurobiological makeup of the human brain that causes magical thinking and assists human beings in making sense of something or coincidences (Alcock, 1995). Zusne and Jones (1989:13) define magical thinking as the belief that.

> "(a) transfer of energy or information between physical systems may take place solely because of their similarity or contiguity in time and space, or
>
> (b) that one's thought, words, or actions can achieve specific physical effects in a manner not governed by the principles of ordinary transmission of energy or information".

Nemeroff and Rozin (2000) suggest that magical thinking should be viewed as

> "The cognitive intuition or belief in the existence of imperceptible forces or essences that surpass the traditional boundary between the mental (symbolic) and physical

(material) realities in a way that diverges from the received wisdom of the technocratic elite, serves important functions and follows the principle of similarity and contagion".

Nemeroff and Rozin presented two major components of magical thinking by which they defined magical thinking. First, magic doesn't make sense in terms of contemporary understandings of science and second, magic typically relies on subjective evidence and involves a conflation of internal and external worlds (Nemeroff & Rozin, 2000). They explained sympathetic magic by three principles: the law of similarity (homeopathic magic), the law of opposites (inverse of similarity), and the law of contagion (contagious magic).

D'Andrade (1965) sees 'magical thinking' as a form of dissociation of thoughts about the affiliation or exclusion of objects and events abstractly or logically in our minds. Magical thought has been an unusual moral process in which an observer infers a hidden meaning conferred on one real-life event about two or more independently caused phenomena whose outcomes are congregated both in space and time. The new event emerges in the intellect witnessing it as a significant coincidence with an occult meaning and the hidden meaning becomes evident for the observer just because of the coincidental final event (Correia, 2014).

Another explanation was given by Carl Jung as *synchronicity*; an acausal connecting principle. This principle conceived the temporal relation between a priori unrelated events with a co-occurring phenomenon in such a way that they become evident when yielding a significant coincidence (Jung, 1952). The individual differences in the willingness to accept possible explanations for both prosaic and mystical events happening in everyday life, the innate biases, sociocultural support for particular types of explanations, and other factors may be the reasons for how particular individuals make references to different events.

As there is an absence of an 'evident' causal connection between two unrelated events, magical thinking is also seen as illogical and irrational thinking among children (Piaget, 1929), a thought process of pre-industrialized "primitive" cultures (Frazer, 1925), and unreasoned beliefs (Rosengren & Hickling, 2000). Eckblad and Chapman (1983) suggested that magical thinking involves belief in forms of causation that by conventional standards are invalid. However, adults in technological advancements take magical thinking as a derogatory label. Also, there are many decisions made by technologically advanced societies that are not based on logic and rationality, such as in gambling. The illogical and irrational thinking among adults may also be the result of a lack of knowledge or experience (Rosengren & French, 2013).

Perspectives on Magical Thinking

Magical thinking has been taken as a commonplace activity in the everyday lives of both children and adults. For instance, people will resist drinking from a glass of water in which someone has playfully dunked a plastic cockroach. Magical thinking is featured by the ability to construct a world that is alternative to the real world. When people are involved in some kind of mental processing of occult events, for example seeing magical events in a dream, reading a book, or watching a movie with magical content, magical thinking emerges (Subbotsky et al., 2010). There are different perspectives on magical thinking. However, the following perspectives from cognitive psychology and cognitive anthropology particularly influenced our understanding of magical thinking.

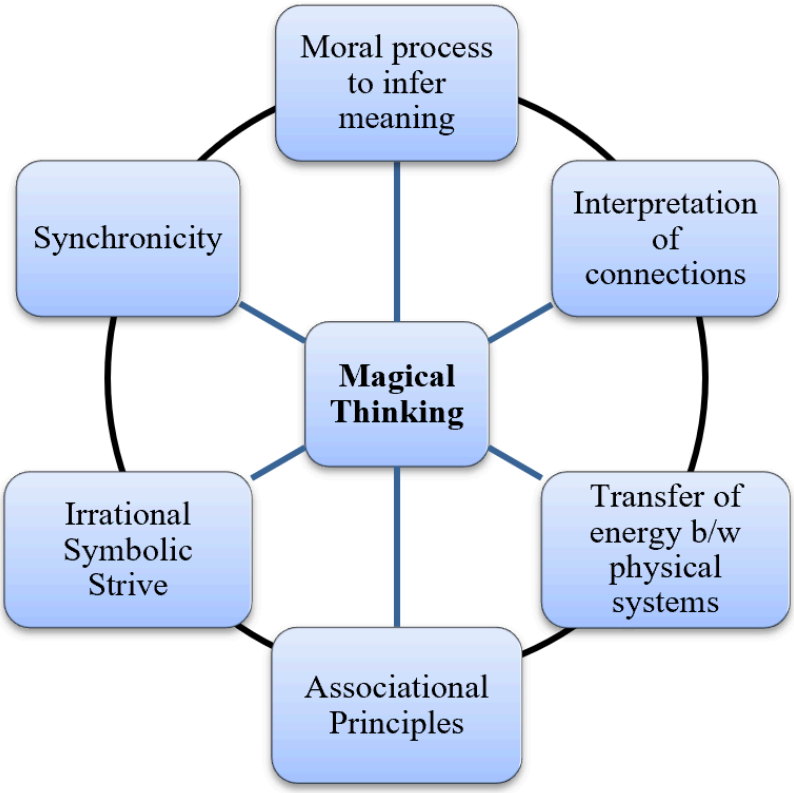

Figure 1. Different, yet connected, views on magical thinking

Piaget's View on Magical Thinking

According to Piaget, children interact with their environment through the processes of assimilation, accommodation, and equilibration. As soon as their cognitive structures mature, they progressively

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replace their magical thinking with more logical and scientific thinking. In his replacement model, the transformation of children's thinking is in a stage-like approach. With each major developmental step, magical thinking is driven farther and farther out of the child's mind until he or she reaches the rational, logical level of adults (Rosengren & French, 2013). This accomplishment was thought to have occurred sometime around age 12 with the onset of formal operational thinking (Piaget, 1929).

Piaget viewed magical thinking as a universal aspect of young children's cognition. He also referred to culturally dependent magical beliefs. These include beliefs in entities such as Santa Claus, the Tooth Fairy, witches, ghosts, and goblins (Rosengren & Hickling, 2000). Piaget used the term *magic by participation* to describe three forms of magical thinking that involved thoughts, objects, and events with no actual causal link. For example, magic by participation between thoughts and things was used by Piaget to describe situations in which children believed their thoughts could alter reality. He used the expression magic by participation between actions and things to describe a child's belief that the performance of an action, such as saying a word or waving a hand, could alter reality.

The third form of participation, magic by participation between objects, was used to describe a child's belief that one object could influence another object when no natural, logical causal relationship was present between the objects. The notion that one's razor would never get dull if stored under a glass pyramid is an example of this type of participation. The final form of participation, magic by the participation of purpose, incorporates animistic beliefs, whereby the child endows the inanimate world with animate properties and in some extreme forms believes the will or purpose of the object can be controlled by the child. A classic Piagetian example of this is a child believing that the sun, clouds, or moon is purposefully following him or her as the child walks by (Rosengren & French, 2013). Pigetian stance on magical thinking presents a stage-like progression of magical thinking being replaced by more rational thinking as the child grows into an adult. However, we see in our everyday lives that adults also practice magical thinking.

Frazer's View on Magical Thinking

In his book, "The Golden Bough", James Frazer describes that magical thinking is a pre-scientific attribution of causal relations between entities not connected by any demonstrable natural law (Sonnenberg and Boardman, 2014). Frazer (1925) described and explained two principles used in a magical system: the law of similarity (i.e. like produces like, or that an effect resembles its cause), and the law of contact (i.e. things which once have contact with each other continue to influence each

other at a distance). The view of magic as a form of thought is presented by Frazer's idea of sympathetic magic based on the law of Similarity and the law of Contact. Homeopathic or imitative magic based on the law of similarity presents the thought "like produces like", and contagious magic based on the law of contact describes the thought that perceives things once in contact as always in contact (even if the contact is not served anymore).

Frazer's work is appreciated for its systematic classification of magical thoughts and practices in different cultures with reference to a thought pattern. The principles of association, the conception of a uniform nature, and the laws, magicians strictly follow, caused Frazer's conviction in a close analogy between magic and science. However, Frazer thought these conceptions of the nature and association principles were mistaken and they separated magic from science and made the former a 'false science'. Again, from an evolutionary perspective, the 'mistaken thoughts' should have been gradually replaced by rational thoughts; however, the latest studies do not support this. Instead of a progression towards more accurate and logical principles (Markovits & Vachon, 1989), magical thinking keeps influencing scientific realities. It is studied that the magical thinking that develops in early childhood and is supposed to be replaced with logical thinking with maturity in age (Piaget 1928), actually never disappears (see Rozin et al. 1986; Cottrell, Winer, & Smith 1996; Subbotsky & Quinteros 2002).

According to Frazer (1925), the fatal flaw of magic lies not in its general assumption of a sequence of events determined by the law of nature, but in its total misconception of the nature of the particular laws which govern that sequence. The principles of association are excellent in themselves, and indeed essential to the working of the human mind. Legitimately applied they yield science; illegitimately applied they yield magic, the bastard sister of science. Frazer proposes a linear scheme of his evolutionary theory and explains magic, religion, and science from an anthropological perspective in a series of phases or stages of human intellectual development. It starts from magic, a pseudoscience, then evolved to the religious beliefs which are somehow believed to be logical, and then to science i.e. based on logic and rationality. There are two problematic issues here. First, Frazer's idea of magic is culturally manufactured by an evolutionary theory that focuses on the supposition that so-called primitive or savage peoples represent earlier stages in the development of 'modern' society. Second, Frazer does not recognize the nature and role of symbols in human life and therefore he presents his theory of magic as rooted in pseudo-scientific formulations that characterize primitive, infantile, or neurotic thinking.

Magical Thinking: A Normal Mode of Thinking

According to Thomas (2010) active magical thinking provides some degree of control to the individuals (whether as personal control or through a supernatural means) to deal with the unmanageable threats. Magical thinking particularly appears in severe anxiety and distress as a normal mode of thinking that helps in moderating anxiety (as Malinowski,1954 documented in traditional societies). Other studies that documented the relationship of magical thinking with anxiety include Keinan (1994), Norenzayan & Hansen (2006), and Padgett & Jorgenson (1982). The studies that investigated obsessive-compulsive disorder (OCD) also found magical thinking as a coping strategy against anxiety and stress among adults (see Einstein & Menzies 2006; Frost, Crause & McMahone 1993; Ivarsson & Valdergaug 2006; Zebb & Moore 2003). Studies also found that forced removal of magical thinking affects negatively (see Foster, Weigand & Baines 2006).

Rozin et al (1986) maintained that the principles of sympathetic magic were not only characteristics of primitive beliefs and rituals but were operative in modern Western culture. They provided examples, such as a drink with a dead sterilized cockroach becoming undesirable; or a laundered shirt of a favorite personality bringing favor to its new owner. Other popular examples are, avoiding food that looks like something disgusting, being reluctant to receive blood from a donor of another race, or being reluctant to give blood to an AIDS victim. Hence, there is a shift from looking at magical thinking as 'mistaken' towards its more meaningful purpose in modern times (Rozin et al. 1986; Thomas 2010; Wilson 2001).

Conclusions

We have been living in a post-corona Neo-normal world for quite some time. Though things are returning to their pre-COVID functioning state, we have not truly "bounced back." We are moving ahead in a new innovative world where we are preparing to embrace and cope with anything like COVID-19. Nonetheless, one thing that we learned during COVID-19 is "social distance." Contrary to dengue, which is visible to human eyes, the coronavirus is invisible. The fear of the "unseen" threat increases anxiety. Following the direction and instruction from medical gurus, we have developed defense mechanisms to cope with anxiety in such conditions; examples include washing away "corona fears" with 20 seconds of handwashing, socially distancing oneself from the physical world, and adhering to 'do not touch' warnings. The fundamental premise is that physical contact might be

dangerous. The governments put a lot of effort into making social distance a ‘temporary norm’ through lockdown. Through the media, we were persuaded to substitute a 3-foot ‘masked’ greeting for handshakes, hugs, and kisses. We are learning to utilize our ‘magical thinking’ to refrain from risk-taking behavior that was once seen as normal. It seems that magical thinking has been extensively invoked for ‘rescue’.

Social and electronic media campaigns that featured images of ‘untouchable’ dead bodies and the misery of COVID-19 sufferers, reinforced the use of magical thinking. Hence, to be safe, it was normal practice to use hand sanitizer, put on a mask and gloves, pay with a credit card, avoid the sales desk, and only handle certain grocery products. When I got home after ‘successful food shopping’ I had to complete a 20-second ritual of handwashing and promptly changing the “untouchable” clothes. I was able to recognize the change in behavior and the influence of media on behavior. Regardless of whether one came into contact with a suspicious object or someone who could be carrying the COVID-19 virus, it was seen as wise to practice precautions.

I am aware that I was not the only one to go through this during COVID-19. This cognitive programming to make us feel secure and safe reminds me of the scope of magical thinking Frazerian’s law of contagion. Hence, in the case of COVID-19, we were unable to see the ‘contagious’ thing that we might have touched, we used ritualized cleaning that varies depending on the level of anxiety to get rid of the contagious effects. Amidst the several contentious views on the myths and truths of COVID-19, We witnessed an ‘extension’ of germ theory in the form of a consensus between magical and causal thinking. The public and private media highlighted the notion of “social distance” to promote the government’s lock-down efforts, even though WHO is referring to physical distance in the context of the spread of COVID-19. In several countries, maintaining a social distance was the only way of keeping a physical distance. Companies promoted their products through commercials that featured handwashing ‘competitions’ in response to the rise in demand for cleaning and disinfection products. People started to be more cautious about physical touch, and handwashing rituals became more important. No longer was the ‘power of touch’ idealized. I perceive these institutionalized attempts to use magical thinking as a coping strategy to reduce anxiety. The ‘magical thinking’ that has been characterized as ‘irrational’ (Piaget, 1929), ‘primitive’ (Frazer, 1925), ‘unreasonable’ and ‘invalid’ (Eckblad and Chapman, 1983), appears to be a ‘normal’ human thinking following scientific thinking that served as a defense mechanism during Covid-19. In my opinion, the socio-cognitive screenplay that the agents of socialization created was quite effective in imparting to us the crucial lesson of ‘how

to change behavior?' However, it can cost us more than we realize to watch a variety of 'behavior change specialists' in the media constantly influencing public opinion. In the present day, when a medical emergency has evolved into psycho-social and economic crises, I assume that the post-COVID-19 world may encounter new psycho-social issues, such as a modified form of OCD (obsessive-compulsive disorder), problems with 'internalized' social isolation, a normalization of magical thinking, and possibly a 'globalization' of protective behavior.

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