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A Critique: An Imperceptible & Mystifying Unity Binding Placebo, Religion & Spirituality

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Abstract

In this paper, the scholar talks about how placebo influences the mind of the people. The author argues both the sides such as how placebo is though not a real medicine, it cures people. It is an effective method to cure an ailing person from both biological and psychological perspectives.

Keywords

Placebo, mental treatment, biological and psychological treatment, perception cures, medicine and treatment.

‘Placebo’ is a Latin word, meaning ‘I shall please;’ please it does as evidenced by many studies. Originally, this word was used in 1811 to define ‘any medicine adapted more to please

than to benefit the patient'. Placebo indicates 'a reduction in a symptom of an individual that results from one's perception of the therapeutic intervention. This response may be considered both a biological and psychological event'.

The definition may seem slighting and somewhat unethical also, but quite surprisingly, the remedy on many occasions proves effectual. Sugar pill, injection with saline solution, fake surgery, etc. are some procedures to treat or cure the patient since the latter has high expectations and deep faith that the treatment is effective and so, helpful. As the mind has a strong influence on the body, it helps the body heal not only psychologically, but also physically. That way, even sham treatment has a therapeutic effect because our body's own chemistry causes effects akin to what a real medication does.

Researchers have been able to discover the placebo effect in action by using brain scans, revealing that many areas that contain various opiate receptors were activated in placebo and treatment groups, both. Science also perceived that taking a placebo triggers endorphins that are produced by the central nervous system and the pituitary gland. But as endorphins act on the opiate receptors in our brains as described, they alleviate pain, stress, anxiety, depression, boost self-esteem and bolster pleasure, finally giving rise to a feeling of well-being. Endorphins are also released during activities, like eating something savory or delicious, prayer, meditation, love, sex, exercise or doing something pleasurable. Love, being a very strong human emotion, sexual wellness specialists discovered that feeling euphoric or when struck by Cupid's arrow one's breath is taken away and his heart goes

pitter-patter. Prof. Pat Mumby aptly observed, 'Falling in love causes our body to release a flood of feel-good chemicals that trigger specific physical reactions...This internal elixir of love is responsible for making our cheeks flush, our palms sweat, and our hearts race."¹

Until the 20th century, doctors confidently relied on the placebo effect for various cures. Placebos do not necessarily have to be pills or injections. In some cultures, they can even be mesmerizing dances, magic potions given by the village shaman, or visits to holy places. It can be a man in a white coat with a stethoscope hung around his neck that will cure a person; it may also be a Haiti voodoo priest whose spell will cast out one's ailment. One may even believe that prayers can remove one's illness or some charismatic individual can provide one with life's difficult answers. If someone believes in voodoo, a doll of his image may bring sickness or, even death. Belief is really very powerful and, as many studies have revealed, is remarkably effective. Religion also depends on rituals, symbols, pageants and music, to reinforce human faith. As Pavlov displayed, humans and many animals can be trained to respond to arbitrary stimuli relating to hunger, fear, anxiety, etc. The same learned reaction appears to occur with other emotions. A fragment of song linked with one's youth, romance, or family, for instance, may bring a feeling of nostalgia.

Chanting of hymns, a prayer, a specific religious service may evoke a feeling of awe, elation, ecstasy, or union with God, mankind or the world. The need to bond oneself, the fear of the unknown, combined with symbols generating devout

feelings, may work in tandem to create superstitions, religions and cults. Before a man reposes his faith in his idol God, his unconditioned stimulus produces an unconditioned response, but later when faith develops and grows, his unconditioned stimulus becomes the conditioned stimulus which is connected with the conditioned response. For instance, whenever a devotee visits a holy place and sees an idol of God he worships, he kneels in supplication involuntarily because he has associated his faith with the idol. He feels more acceptable, moralized and worthy of esteem before his God, as a specific brand of bike or car seems more appealing, attractive and desirable when it features a beautiful model. This is nothing, but principles of associative learning that advertising commercials are adept at applying as some priests do in religion showing all gods and goddesses with certain associations as almost all are associated with or represent some value, trait, or characteristic.

Quite strangely, but ironically, advertising techniques work in religion also. Further, one approaches only those gods who could cater to his needs or in whom he is able to see what he wants. Brahma represents the creator, Vishnu, the preserver, Shiva, the destroyer (and re-creator), Ganesh, the remover of obstacles, goddess Lakshmi, fortune, wealth and prosperity, Goddess Saraswati, light, knowledge and truth, and so on and so forth. The strong impact of classical conditioning can be seen in daily life. For instance, a man with conditioned nausea by a specific food will be repelled by the sight of that food because it caused him stomach upset in the past. Similarly, a conditioned fear of pistols is evinced when the sight of a pistol is associated with the memory of being shot earlier. Again, for

a devotee, spiritual awakening is caused by pairing a stimulus like an idol or picture or image of the god or goddess of his choice. Likewise, an image of some demonic mythological figure he despises would cause him phobia, disgust, hatred and even anger. All this happens when the conditioned stimulus is established and is linked with the conditioned response.

Classical conditioning that also has therapeutic properties, plays a vital role in individual behavior and in everyday life. Pavlov, a Russian physiologist, discovered classical conditioning which is learning through association effected by linking two stimuli simply to generate a new learned response in human and animal, both. The best example of classical conditioning was Pavlov's unique experiment with dogs who responded to the sound of a bell through salivation. Each time the bell was rung, the dog was fed. Thus, the dog learned to link the sound with the food served. Most of the human activities, from speech to mental and emotional responses are based on stimulus and response. All individual differences in behavior are due to differences in learning experience. Pavlov demonstrated that humans and most animals can be trained to respond to arbitrary stimuli relating to fear and hunger. The same learned reaction appears to occur with other emotions also. A snippet of song connected with one's youth, courtship, or family, for example, may bring a feeling of nostalgia. A religious chant, a prayer, a particular service of a devout, may evoke a feeling of awe, ecstasy, or unity with the world. The need to bond and the fear of the unknown, combined with symbols triggering devout feelings work together to create superstitions, cults, and religions.

At times, the association is also established between a behavior and a consequence—be it good or bad. The behavior which is goal-oriented is effected through instrumental or operant conditioning behavior. This method of learning derives its source from rewards and punishments. One prays to God because he wants spiritual peace, satisfaction and also wants to have a better life in the life hereafter; he does not sin or avoids sinning because he wants to escape eternal damnation. Rewards and punishments dominate his mind all the time. The prior expectation of anything influences our perception of it. As the expectation of the patient plays a vital role in the placebo effect, the same fulfillment of expectation is perceptible in a devotee whose spiritual practices cause his brain to release endorphins that benefits his general well-being. Expectation and faith confirm that the placebo effect is real; it is not all just in our head, measurable physiological changes can be seen in a person taking a placebo or praying to god whole-heartedly with deep devotion by also going through all types of rituals. As most religions have an incredibly strong hold on people all over the world, any description of a pilgrimage to some holy site testify to the major belief systems. Pilgrimages may be funny for non-believers, but for believers, they are dream-like ethereal experiences and sometimes unconsciously their frantic absorption in the divine bliss elicits tears of ecstasy from their eyes.

Muslims on their pilgrimage to Kaaba shrine, devout Catholics to Lourdes, orthodox Greeks to Mount Athos (a home to 20 monasteries) Hindus to the venerated Ganges, Sikhs to Harminder Sahib or the Golden Temple are a few instances

that are instrumental in triggering endorphins. Dr Mumby analyses and explicates the functioning of the human brain in the state of love. His findings also fitly apply to human love for God also. He discovered how MRI scans reveal that 'love lights up the pleasure center of the brain'. In love, blood increases and flows faster in this area, 'which is the same part of the brain implicated in obsessive-compulsive behaviors'.

Though Karl Marx, a German philosopher, has his own riveting observation, 'Religion is the opium of the masses', there are a number of biologists, physicists, and mathematicians who still believe in their very personal god despite the tremendous strides in the development in all branches of knowledge, the origins of the universe and life and the evolution of humans. 'Over one-in-five physicists and astronomers still believe in this personal God'. But gifted with scientific temper, belief in immortality fell from 51 to 38 percent over the years and correspondingly, a desire for immortality nosedived from 34 to just 10 percent. However, it also seems rather strange that despite such advancement in science and knowledge about nature most men have failed to enfeeble his religious belief and religion continues to hold its sway on most humans. As its ubiquity and power suggest, the origins of religion do not seem to have stemmed from a culture because the need for faith is already embedded in human nature, in his very consciousness. If it were simply a creation of culture, some human groups would not believe in religion as the form religion assumes is explicitly conditioned and controlled culturally. The universality religion evinces is perceptible in all human societies in the past also. This proves the urge to

believe which must be in our genes that must pass on to all future generations.

Conversely, however, the 'nocebo' effect is witnessed when a patient or the prayer of a devotee gets no response from a 'placebo' because of his weak faith or expectation. The term 'nocebo' is derived from Latin, meaning 'I will harm.' This has 'been reserved for describing negative effects, i.e. harmful or undesired reactions stemming from inert, sham or dummy treatment.'² Pargament K. I., Smith also remarked: 'Research on religious and spiritual coping has identified 'anger at God or a deity' as an important predictor for poor mental health and poor coping outcomes'³. Grof also observed, 'It has also been suggested that some spiritual experiences may induce severe distress, states of crisis, and/or abjectly negative physiological effects, and in this regard, literature addressing Voodoo rituals is particularly illustrative of the relative power of nocebo'⁴. Thus, the power of faith or expectation is formidable and decides whether placebo is effectual or ineffectual. However, it cannot be denied that conditioning is important to have a lasting effect as it affects earlier stages of information processing.

If a patient takes a placebo under one name he responds well in much the same way on another occasion also to the same placebo, but won't respond under another name. Likewise, a devotee feels elated and spiritually uplifted only when he prays to the deity he strongly believes in and not any other deity. It is commonly known that deception is essential to produce any effect, but interestingly, there is also enough evidence to prove that placebos at times are still effective

even if the patient is fully aware of its ineffectuality. In much the same vein, if some devotees switch over to another god or are conscious of the futility of their prayers or meditation or even faith, they still stick to it and feel joyous, satisfied and spiritually uplifted—a strange human psychology indeed! Not all communities, but mainly a large number of confused or indecisive Hindus, apart from their regular visits to temples, also visit Gurudwara, holy Muslim tomb or dargah, church and all places of worship mankind has conceived till date to enjoy placebo effect. So, in order to quench their thirst for the delicious effects of placebo, they traverse hither and thither in search of God, relevant and apt, that could meet their various needs and purposes as if their own assigned god has failed to fulfill their desires, or, perhaps, their own faith in their prescribed god is weak.

All said and done, the harshest truth that still remains is, if everyone responds to placebo, all religions would be more popular and impactful and their followers would increase and man won't need standard medications at all for any ailment. Placebos cannot cure chronic heart problems, cancer, lower cholesterol, reduce a tumor or always effect true health benefits, but they surely make one feel better as religion does, sans solving your daily problems since they work on signs and symptoms the brain modulates. It is rather a strange ubiquitous phenomenon that chimpanzees and gorillas—our earlier and closest kith and kin, are devoid of all spirituality and religious beliefs. Humans, or say, *Homo sapiens* in fact, are the only species that tend to be spiritual or religious. Likewise, even Neanderthals, our ancestral kin that lived about 690,000 to 550,000 years ago left traces that clearly display

spiritual or religious beliefs and ideas. Interestingly, paleontologists propagated how neural changes induced by evolutionary force give rise to a modern social man, to elaborate societies and even, to religion. Ethnologists have confirmed that every society has its own form of religion. Ethnographic Atlas that listed more than 300 societies reveals that 98% of the world's population fosters religious beliefs that also include the afterlife. All these clearly signify that faith is 'concerned with the transcendent, addressing ultimate questions about life's meaning, with the assumption that there is more to life than what we see or fully understand'⁵ and that something more is none, but God.

Paradoxically, an intelligent and highly educated individual sometimes thinks beyond tradition but still reposes his faith in God. He perhaps, forgets that faith blocks his mental growth, for he cannot think beyond his ultimate faith or God. This apart, no one can deny that it is human tendency to hang on to some supernatural power in times of difficulty or crisis or when he is in dire straits even though he may be a skeptic. Great poetry characteristically emanates from suffering. So, too, does faith or belief. However, belief and only belief lies at the core of every religion. Voltaire aptly remarked in this context,

Faith consists in believing when it is beyond the power of reason to believe. It is not enough that a thing be possible for it to be believed.

Orthodox Jews, for example, define their religion in terms of belief. You must believe ... in order to be a "believer." That's why like placebo religion is effective and impacts a man psycho-somatically. The American Heritage Dictionary defines

religion as: "Belief in and reverence for a supernatural power or powers regarded as creator and governor of the universe." The operative word here is "belief."⁶ Pathetically, sometimes blind faith or false belief assumes an abnormal form especially when it lapses into delusion and when it is of religious nature. Recently, a deeply religious and educated couple from Chittoor district of Andhra Pradesh with the delusional disorder allegedly beat their two young daughters to death with dumbbells during a strange ritual at the behest of some spiritual guru. Unbelievably and most ironically, the delusional daughters with sound education also willingly shared this gruesome experience and joyously allowed themselves to be ruthlessly killed with the empty hope for a better life hereafter. It is the sheer fatal folly of some people to experience the pleasures of placebo at the behest of such a godly villain. Lamentably, one can witness many such grisly instances in almost all parts of this enlightened modern world even today.

Even though man has made great progress in explaining nature, storms, disease, and even death, people still have strong beliefs about supernatural powers that control these events. That way, supernaturalism emanating from religious beliefs also have an important role to play in the lives of believers. A charismatic person with supernatural powers is often called upon to defend, to help, and to avert tragedies or to provide some special dispensation since a patient of some fatal disease reposes his faith in the healer placebo. Most creeds even offer cessation of fear, especially, fear of the unknown, fear of sickness, fear of nature, fear of death and even of the sorrow over the loss of beloved ones. Love, being a very strong emotion promotes bonding among all family

members and other loved ones. So, when a person is shattered by the death of a beloved one religion offers much-needed solace by promising an afterlife, reassuring the affected that they will see the departed once again in the life hereafter. This strengthens their faith and intensifies their hope to realize the ethical goals that religion promises.

Spiritual practices are potent, in that they enunciate the response of placebo and its effects, particularly as they are propelled by psycho-physiological mechanisms that resemble 'conventional' placebo used in medical sciences. Interestingly, 'experimental studies by Hyland et al. has identified spirituality as the predictive variable of placebo response—independent of expectancy—in an open self-treatment design'⁷. The neuroscience that has focused on the role of brain and emotional and cognitive processes in both spiritual experiences and placebo effects have also shown that combined neuro-chemical and anatomical bases appear to be fused in many aspects of these phenomena. It has also been noticed in epidemiological studies that spiritual experiences and behaviors are influenced by cultural and environmental factors. This especially refers to psychological variables such as faith, expectation, optimism, meaningfulness, and purposefulness which appear to be the main features common to both placebo responses and spiritual experiences.

Spiritual experiences and placebo responses are complex phenomena that, although accelerated by neuro-psycho-physiological processes, are largely based upon both cultural and personal contexts that are further based on bio-psycho-social effects and interactions. However, the question of

whether spiritual practices or experiences are generated by placebo response may give rise to dismay from certain quarters. Hence, spiritual and placebo effects have been clinically observed, tested and, documented, and this has implicitly influenced the worldview of neuroscience and medicine which have often been compelled to re-address and re-consider such mind-body effects. Indeed, Giordano has claimed that such ambiguity in defining placebo and 'spirituality' has confused the notion of religion and can create and '...sustain both philosophical and pragmatic problems'⁸ relating to the truth, utility and value of spirituality and placebo in health and medical sciences. Giordano & Engebretson noted that the effects of spirituality on the body cannot be viewed in terms of a single cause; an in-depth understanding of the spiritual and placebo effects should indicate articulate models that are valid and explicit to patients, scientists and clinicians alike. There has been a growing interest, research and study to further probe and explicate the mind-body healing facts through religion or spirituality, and also hopefully, open new venues for due medical care and more precise forms of healing.

Acharya Rajneesh, later known as Osho, criticized the orthodoxy of mainstream religions and focused on the importance of meditation, mindfulness, celebration, love, sex, creativity, and courage. His open, rather unconventional and novel attitude to sexuality resulted in a great deal of controversy but made him a popular 'sex guru' for which he received considerable acclaim from some liberal-minded quarters. He epitomizes biology, psychology, physiology and the role of placebo in sex thus: 'Though essentially sex is

meant for procreation, it has also been a source of pleasure, a natural relaxant, it confirms one's gender, bolsters one's self-esteem and sense of attractiveness for mutually satisfying intimacy and relationship⁹ as various hormones and neurotransmitters play a vital role in sexual function. His new enlightening vision to raise oneself from sex to enlightenment to attain spiritual bliss or salvation could also be viewed as a placebo effect. According to Osho, the mind can be stilled and freed of thoughts with a crescendo of excitement even without resorting to sex. Living continuously in the same blissful state through meditative practices by transcending sex thus leads to a sublime state of consciousness giving rise to the beatitude placebo offers. The same bliss is also attained in much the same way in sex, religious practices, and meditative experiences causing the same placebo effect.

But, as Sigmund Freud believed that all human behavior has its roots that originated from sexual drives and desires, Rajneesh too was of the firm opinion that 'the root of spiritual realization is nothing but sex.'¹⁰ Prayer, meditation and sex reach a crescendo when there is complete fulfillment and when the highest point of bliss is reached. Crescendo is witnessed in many facets of life: music that rises to a crescendo, the epic crescendo that bridges the third and fourth movements of Beethoven's fifth symphony, a long period of stress or tension leading to a crescendo and subsequent suicide, bliss or sex leading to a crescendo, etc.—all have an undercurrent of placebo. Quite stunningly, in 'The Future Poetry', (1st Chapter) Sri Aurobindo, very subtly, mystically and psychologically stated that mantra is embedded even in poetry which when touches a crescendo,

attains the sublime. He perceives, '...mantra in poetry, that rhythmic speech which, as the Veda puts it, rises at once from the heart of the seer and from the distant home of the Truth,—the discovery of the word, the divine movement.'¹¹ Sri Aurobindo in his 'The Future Poetry,'(Chapter 1) has also distinguished the rhythmic poetry and ordinary poetic verses from the mantras which contain within its womb the potency of therapeutic diagnosis as we all have genesis in the primeval sound of Aum. The great seer of Indian origin foresaw the future of poetry to transcend from metre to mantras, from human consciousness to a level of Supra-consciousness--The Life Divine. For an extraordinarily perceptive eye, the placebo impact could also be felt here in some measure.

Presenting the same idea in a different light, James Cousins also, in his 'New Ways in English Literature', tellingly and exquisitely delineated how the form of proper thought to the reality, 'lies in the apprehension of a something stable behind the instability of word and deed, something that is a reflection of the fundamental passion of humanity for something beyond itself, something that is a dim shadowing of the divine urge which is prompting all creation to unfold itself and to rise out of its limitations towards its Godlike possibilities.'¹² Poetry in the past has done that in moments of supreme elevation; in the future there seems to be some chance of its making it a more conscious aim and steadfast endeavour'. Research is also being carried out on the effectual diagnosis with the sound and vibrations emitting from the mantras viz. Gayatri and Mahamrityuanje.

Despite all effects of placebo on religion, spiritual and sexual aspects of man, problems at times arise while differentiating the term spirituality from the other somewhat related constructs known as religion or religiosity. Spiritual or mystical experiences are often considered as a sub-category of exceptional experiences that are seen as being in some way very 'different' and 'extraordinary' or 'superlative' to the commonly observed reality of this ordinary world. But then sometimes even some religious people seem to be on the threshold of such an experience though anyone who has undergone such a rare experience cannot precisely tell what the nature of his experience is. Most of the early literature had often used the terms spirituality and 'religion' in an interchangeable manner, in a rather artless way. However, the current notion that clearly distinguishes between these two constructs discovers the common ground as well as the dividing line between them.

An individual may foster spiritual faith in a higher being, ultimate power of nature or some divine power or transcendental proposition sans linking himself to any form of orthodox religion, mentally or emotionally, without also experiencing any personal sense of a divine or transcendental constituent. As such, differentiating spirituality from religiosity or other similar constructs is a difficult task, as these are not essentially 'mutually exclusive' and describe a complex and multi-dimensional phenomena, often beyond the comprehension of many. However, viewing broadly, deeply and objectively, one discovers that spirituality alludes to the exclusively subjective and experiential features of transcendence, while religion to objective, socio-culturally

projected dimensions that an independent celestial and cultural structure are needed for its interpretation.

Religious cults and traditions, however, may be interpreted as cultural grounds that organize and systemize a framework and elucidate spiritual experiences by providing rituals, mythical references and other age-old established practices (based on faith) that are accepted and recognized within specific socio-conventional and traditional frameworks of any religious creed. That way, religion and spirituality converge at a certain point despite their different constructs. This convergence is perceptible among most individuals, but not among those who consider each a watertight compartment. 'Practices such as meditation, different forms of contemplation, many mind-body practices and/or prayer may be regarded as any regular activity that is intended and designed to elicit spiritual experiences'¹³.

Davidson R. J. remarked, 'Spiritual or meditative practices can also be considered to be introspective training methods that lead to a change in self-perception and self-reflection; it can be assumed that individuals who engage in regular spiritual and meditative practice might be more capable of focusing awareness of their current inner states than those who do not perform such practices. For example, a recent study has found that individuals practising some form of mindfulness meditation seems to be able to alter their personal psychological model, so they can dissociate their self-awareness of the present from their long-term 'self-image'. Thus, 'these practices may not only lead to characteristic changes in self-perception and organization leading to more

resilience against distressful events threatening the integrity of self, but may also influence physiological variables such as immune function'.¹⁴

But then seen through salutogenic theory it is credible that both spirituality and religiosity have potential health resources, like a healthy lifestyle and avoidance of evil habits and health- risk behaviors due to propensity for religion and spirituality, social support owing to religious belief and a deep sense of unity and meaningfulness of life owing to spiritual practices. The placebo effect also accounts for 50% to 70% of the therapeutic benefits as evinced by certain pharmaceutical and even 'surgical procedures' and though its effect is plausibly the most undervalued discovery of modern medicinal science, its mind- boggling impact immensely baffles medical research.

It does not mean that the God one prays to actually exists, but it cannot be denied that those who pray and meditate tend to statistically lead a healthier and happier life than those who don't. This justifies the claim that placebo matters. Being a fascinatingly abstruse and interesting subject, it merits further study. Hence, research and investigation are still being carried out at Post Graduate Institutes of Medical Sciences, Delhi, in India and other renowned Medical Institutes of the world.

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Dr. Dalip has also started a new genre in the field of poetry, which he would like to call 'psycho-psychic flints'.



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