

the target itself but are shifted preferentially within the same emotional set.

According to observational theory, paranormal effects are produced through the observation of an essentially random outcome by a motivated human observer. This viewpoint of observational theory is sharply distinct from the traditional viewpoint, as the effects are assumed to be produced by the checkers instead of the subjects. The interpretation of a correlation between a trait of the subject, say, anxiety, and his or her scoring on the ESP task is traditionally a genuine relationship between anxiety and ESP scoring. Observationally, such a correlation has to be regarded as being produced by the observer of the correlation. As no feedback is given to the subject, it means that the checker produces the correlation. This calls for better experimental control of the observation procedure. The present study, entertaining both the traditional paradigm and the observational paradigm in distinct hypotheses, however, offers no result favoring either one of them.

A TEST OF HEYMANS' THEORY ON PARANORMAL PHENOMENA

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Professor G. Heymans (1857-1930) can be considered the founder of the scientific and experimental approach in parapsychology in the Netherlands. Internationally he is best known for the telepathy experiment with the subject van Dam, carried out in his Psychological Laboratory at the University of Groningen together with his assistants Brugmans and Weinberg. Less well known are his theoretical views on paranormal phenomena and the rather unique way by which he became involved in parapsychology.

Heymans was a philosopher and based his philosophical position on the work of Fechner. In Fechner's ideas, which were further developed by Heymans, the hypothesis of psychic monism or "pan-psychism" takes a central position. Psychic monism is an offspring of an idealistic world view that supposes that there is only one fundamental reality and that all physical phenomena are reducible to the mental or psychic. According to the psychic monistic theory, paranormal phenomena such as telepathy are to be expected. In addition, the theory provides a number of predictions about various properties of paranormal phenomena. Therefore, Heymans became interested in the work of the British SPR and turned to the parapsychological literature of his day to study whether the properties of paranormal phenomena were in agreement with the theoretical predictions he had arrived at beforehand.

Psychic monism assumes that all phenomena are basically mental and consequently assumes a "world-mind" (*Welbewusstsein*), that which contains all the mental. It can be considered the equivalent of what space is for physical matter. The world-mind is internally perceived through awareness. The consciousness of an individual is part of this world-mind. Consciousness can be thought of as consisting of the individual's consciousness, which is what the individual is aware of at a given moment, and the peripheral consciousness, which contains all our memories and knowledge.

Elements of the peripheral consciousness are not isolated but part of mental structures, complexes of related images. When human beings grow up, their consciousness develops into more strongly organized mental structures of images. Because these mental structures are based on experiences they mainly involve memories. The peripheral consciousness consists of many of such mental structures which are in different degrees related to other structures by associations.

The content of the individual consciousness changes regularly. Which images enter the individual consciousness is governed by the laws of association and depends on the nature and intensity of an image, its emotional character, and its association with other images. Especially strong are the perceptions, and accordingly they have a high probability of becoming the object of awareness. Perceptions evoke the mental structures of which they are part. Also likely to reach consciousness are recent events, images strongly associated with the present content of the consciousness, and strong emotions. On the other hand, weak images of the peripheral consciousness will only become conscious to the individual under favorable conditions; for instance, in the absence of sensory stimulation. There is constant competition among perceptions and mental structures of the peripheral consciousness to occupy awareness.

Because nature is considered as basically mental it can be assumed that the processes involved in the individual's consciousness also apply to the world-mind. There is no fundamental difference between the two. An individual is made up of various mental structures which become more and more a structural unit when the individual develops. Such structural units, the individuals, are in themselves again elements of a larger whole, the world-mind. That individuals are not aware of their association with other elements of the world-mind is because in general only perceptions with its associated mental structures and elements of one's own peripheral consciousness will reach the individual consciousness. Since these mental structures are familiar, because they are based on the individual's experiences of the past, a sensation of individualism is created. But individuals share experiences and therefore associative connections are formed in the world-mind between mental structures of different individuals. Hence, a mental image in one individual might give rise to an associated mental structure of another

individual to which experiences not known to the first individual are connected. The more important a mental event is to an individual, for instance because of its emotional loading, the more associations to different mental structures in the peripheral consciousness it will have and hence a higher likelihood to become associated to one of the associative connections shared by different individuals. Also, because of its emotional character it will have a higher likelihood of becoming evoked via associations in the other individual's consciousness. As a consequence, under certain conditions (Heymans mentions dreams, fever and hypnosis) weaker elements of the peripheral consciousness to which such "strange" associations are connected might reach consciousness. In that case we would observe an instance of telepathy.

From the theory a number of predictions can be derived as regards telepathy. Telepathic experiences will be rare but must occur occasionally. They can be expected to occur when sensory stimulation is absent or has little influence; for instance, in the case of Ganzfeld conditions. Associations are the vehicle by which telepathic impressions become possible. The more associations two individuals have in common the higher the likelihood that sometimes via these associations elements from another person's peripheral consciousness will reach the other's consciousness. Thus, telepathic experiences will be more common between people who are related and who share many experiences. The importance of the experience to an individual will increase the possibility that it becomes associated with a mental structure of the percipient; therefore, telepathic experiences will relatively often be related to important and serious events. The telepathic experience will have no characteristic of its own because the mental structures of which they are part have in principle the character of vague memories or thoughts. It is as if the percipient suddenly remembers something. Because the weak mental images to which the telepathic elements are associated are most often memories, the telepathic "message" should often start as a memory or be embedded within memories.

Heymans' theory also leads to some interesting predictions as regards the survival issue and ghost experiences. If a person is aware of a sensory stimulus, that awareness will disappear once the stimulus is removed. However, a memory trace weaker than the original perception remains, which, however, gradually weakens. The same applies to the mental structure that represents an individual. As long as the individual lives on, the development of his mental structure continues. Once this person dies the development halts and the mental structure of that individual becomes gradually weaker. Hence a living person, for instance a medium, might again by association get access to the mental structure of the deceased, if that individual has died not too long before, and provide details about that individual's life. This might create the impression of life after death and communication from beyond.

In the same vein, since the physical is only the way external mental units present themselves to us, it is in principle possible, provided the necessary associative links are available, that the mental structure of a deceased person appears as if a physical object. But again, this is just the representation of the mental structure as it was. Therefore, ghosts will only show themselves in a passive way, they can't talk or converse and can only behave in the manner the individual used to behave when still alive.

In Heymans' theory the concept of associative connections between mental images is a vital element. When two individuals have a lot in common the likelihood increases that an important mental complex of one individual will become associated with some mental structure in the peripheral consciousness of the other. Associations are in two aspects important. One is that the individuals involved have a lot of associative connections formed by common experiences. The other is that important aspects of the life of a person become associated with these associative connections.

A free-response study was carried out to test whether the importance of this concept in ESP could be falsified. Two different types of targets were employed with 21 pairs of related subjects. One set of targets consisted of important experiences the target person shared with the percipient while the other set of targets consisted of important events in the life of the target person not shared with the percipient. According to Heymans' theory, ESP scoring should be higher in the condition in which shared experiences are employed as targets. No ESP was observed in the data; hence, no conclusion could be drawn as regards the importance of the concept of associations for ESP.

EXPLORATION OF QUASI-THERAPEUTIC PROCESS AS A VEHICLE FOR FACILITATING ESP

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An exploratory research project is described in which quasi-therapeutic group process is examined as a possible vehicle for expressing free-response impressions of an ESP target. An analogy is drawn between using such process to seek new self-understanding in therapy and seeking access to hidden ESP targets. A twelve-trial pilot series was carried out with two groups in which an hour of relatively unstructured, quasi-therapeutic group interaction was followed by group members ranking four potential target pictures, one of which had been randomly selected by someone not in the group, during the group session. The first two sessions used GESP