

Mary at Medjugorje: A Critical Inquiry by Hector Avalos

Has the Virgin Mary, under the title of Our Lady, Queen of Peace been appearing in Medjugorje in the former Yugoslavia since 1981? Six young people have reported these visions and have been subjected to tests. Let us present what Hector Avalos says on the subject.

The 'Scientific' Investigation of Henri Joyeux

According to his own account, Henri Joyeux, a surgeon and a professor of oncology in the Faculty of Medicine at Montpellier, France, carried out an extensive battery of tests in four separate missions between March and December of 1984. Joyeux and Father Ren Laurentin, an ardent Marian apologist and historian, then synthesized their findings in the definitive work *Scientific and Medical Studies on the Apparitions at Medjugorje*.

Joyeux concluded that the visionaries had no mental illness of any sort. The apparitions are not sleep or dream or hallucination in the medical or pathological sense of the word. This is scientifically excluded by the electro-encephalogram and by clinical observation. He also excludes "any element of deceit."

Since Joyeux could not find any condition that he would label "pathological," he concludes, "We are dealing with a perception which is essentially objective both in its causality and in its scope." As to the cause of the youngsters' experience, he says, "The most obvious answer is that given by the visionaries who claim to meet the Virgin Mary, Mother of God." In sum, Laurentin and Joyeux conclude that there is no scientific or natural explanation available to account for the reports of the visionaries. More important, they conclude that the absence of any condition labeled as "pathological" is evidence that the reported experience of the visionaries is authentically supernatural.

Can 'Normal' Persons Report Seeing and Hearing Non-Occurring Events?

Contrary to the conclusions of Laurentin and Joyeux, abundant and empirically verifiable evidence and experiments demonstrate that persons with no known pathological conditions can report hearing and seeing events that are not occurring. Psychological experiments show that such reports of non-occurring events are part of well-known and relatively natural psycho-social processes experienced to some degree by most human beings.

One of the most noted of such experiments was published by T. X. Barber and D. S. Calverley in 1964. Seventy-eight unselected "normal" female secretarial students had volunteered for what was described to the subjects only as a "psychological experiment." Barber and Calverley divided these seventy-eight subjects into three groups of twenty-six. One group was subjected to suggestions to see and hear non-occurring events under hypnosis. A second group was given "task-motivating instructions" without the use of hypnosis. The third group served as a control that received the same instructions without hypnosis or task-motivating requests.

The second group's "task-motivating instructions" consisted of asking subjects to see and hear events that were implied to be real but were actually nonexistent. The subject was told, "I want you to close your eyes and to hear a phonograph record with words and music playing *White Christmas*. Keep listening to the phonograph record playing *White Christmas* until I tell you to stop." The astounding result was that 38 percent of the "normal" subjects in the second group stated that they clearly heard *White Christmas*, even though nothing was played. Sixty-five percent of the subjects in the control group reported the same result. An average of 5.1 percent of these unselected people in each experimental group state that they not only heard the record, but they also believed that the record was actually playing.

Immediately after this portion of the experiment, the subject was instructed as follows, in a firm and earnest tone of voice: "I want you to look at your lap and to see a cat sitting there. Keep looking at the cat until I tell you to stop." An average of 33.3 percent stated they saw the cat clearly even though they believed it was not there. However, an average of 2.5 percent of the subjects in each group (3.8 percent in the second group) reported they not only saw the cat clearly but also believed it was actually present.

Similar results were reported in experiments performed by K. S. Bowers and by N. P. Spanos and T. X. Barber. Even if many subjects reported non-occurring events only to please others (Bowers), these experiments clearly showed that otherwise "normal" people under relatively "normal" conditions can and do report hearing and seeing events that, by recognized objective measures, are nonexistent.

The Barber and Calverley experiments also showed that the subjects used the strongest objective terminology available to describe non-occurring events. For example, the subjects in the experiments used the terms see and hear to describe their experience.

Why do otherwise normal people come to believe that they are witnessing non-occurring entities and events? The Barber and Calverley experiment, as well as a host of recent research, indicates that human acts of perception always involve interpretations and inferences that may be held in common by large groups of people. Raw visual and auditory data are combined with inferences about what was thought to be seen and heard. We often select out of the large raw input of visual and auditory data those that we regard as important and that confirm expectations, especially if they are desirable.

Many recent experiments show that the human mind is biologically wired to interpolate many expected images or portions thereof, even if such images are not objectively present. People often form mental images of all types of objects, real and unreal. We've all heard how difficult it is not to form an image of a pink elephant when someone tells us not to. One can also form mental images that are believed to be situated in real time and space (e.g., imagine a pink elephant in the middle of a parking lot).

Believers may be following a rationale with premises that can yield, at least in their minds, very solid conclusions. Once a believer is convinced that an inference is valid, then the conclusion may be considered sufficiently certain to contradict or suppress raw visual data. Any further disconfirmation of their interpretation may be either ignored or disregarded in favor of the inference. This type of avoidance of disconfirming data among Marian devotees is clearly manifested in the oft-repeated dictum: "To those who believe, no proof is necessary; to those who doubt, no proof is sufficient."

The implications of these experiments for the reports of Medjugorje are quite clear. If, as in the Barber and Calverley experiments, an average of at least 33 percent of people with no obvious pathology can report clearly seeing or hearing events that are not occurring, then it would not be extraordinary to find 333 "normal" people in a parish of at least one thousand believers who could report seeing or hearing non-occurring events, especially when, as is the case with supposed Marian apparitions, the events in question are believed to be not only possible but desirable as well.

If, as in the Barber and Calverley experiment, at least 2.5 percent believe what they are seeing or hearing is actually present, then it would not be extraordinary to find at least twenty-five people in a parish of one thousand members who actually believe what they are seeing and hearing is present in real time and space. In fact, there are many more reported visionaries in the parish who did not receive the attention of the six principal ones.

If the results obtained by Barber and Calverley occurred after only one suggestion to hear and see non-occurring events, then what would we reasonably expect from persons, and especially impressionable youngsters, who are repeatedly requested to see non-occurring events? Does anything akin to the task-motivating suggestions exist in the subculture of the visionaries?

Imagine living in a subculture that constantly and repeatedly suggests to its members the desirability of experiencing a Marian apparition. Imagine living in a subculture where young people who have claimed to have seen Marian apparitions at Lourdes, Fatima, and other places also are beloved role models. Suggestions presented to believers in sermons, prayers, and written materials may be just as effective as the simple requests made by Barber and Calverley. Although conspiracy or formalized coaching is not required to produce people who will report non-occurring events, it should be noted that Bishop Zanic declared that the visionaries were indeed coached and manipulated by the Franciscans.

Not only can the subculture of the visionaries encourage the apparitions with words, it also provides detailed and coherent imagery of how the Virgin Mary ought to look and speak. According to P. and I. Rodgers, a picture of Mary supported by a cloud rising above Medjugorje has been present in the church of the visionaries since about 1971. Not surprisingly, the youngsters' description of the Virgin is quite consistent with the picture to which they were exposed for years.

Is Group Simultaneity Always Evidence of an Objective Experience?

Aside from the supposed lack of pathology in the visionaries, Laurentin and Joyeux cite the simultaneity of their key movements during the supposed apparitions as evidence for the objectivity of their experiences. For example, they point to the convergence of their gaze as confirmed by video recording made face-on to the visionaries during the ecstasy and the simultaneous raising of their eyes and heads as the apparition disappears upwards.

I have studied Joyeux's report and have looked at the videotape of two separate events that show such alleged simultaneous behavior. My examination reveals nothing so extraordinary as to demand a supernatural explanation.

Joyeux and other writers often make statements that may mislead the reader into thinking that the whole group exhibits simultaneous behavior that, at most, occurs in only part of the group. For example, they report administering an electro-

oculogram to Ivan and Marija on December 28, 1984. The movement of the eyeballs of both youngsters reportedly showed simultaneity to the second in the cessation of movement at the beginning of the ecstasy and again, simultaneity to the second in the return of movement at the end of the ecstasy. But in a Paris Match interview, Joyeux generalizes this result to the visionaries as a whole ("des voyants"). In his translation of this interview Father M. O'Carroll makes the generalization even more emphatic by saying that "all the visionaries" had such simultaneity.

Likewise, sometimes the ecstasy that is taken to be evidence of a real apparition experience is not as uniform as might first appear. For example, regarding the youngsters' supposed disconnection from the world during their ecstasy, Joyeux says that "disconnection is not total; rather it is partial and variable."

More important, the supposed vision experiences have a regular schedule and duration that may result, with or without sinister collusion, in simultaneous behavior. Laurentin and Joyeux themselves note the regularity of the behavior, for they divide the experiences into three phases: contemplation or conversation; prayer with the apparition; and contemplation or conversation.

Insofar as duration is concerned, Laurentin and Joyeux themselves note that "no apparition has lasted for more than one or two minutes since the end of 1983." This is important because they made their measurements of simultaneity in 1984, when the duration of each event was quite short and predictable. In fact, they report recording the precise duration of only five ecstasies, with each one lasting sixty-five to eighty-five seconds.

The schedule for the start of the ecstasy is certainly familiar to Laurentin and Joyeux, who themselves say: "Since the end of 1983, ecstasy begins before they have finished the first Our Father." They also note, following an earlier study of Dr. Lucia Capello, that: Their voices become audible at the same time, on the third word of the Our Father, the apparition having recited the first two. This phenomenon militates against the theory of a prior agreement and cannot be put down to natural causes. Even without a sinister conspiracy, the regular schedule noted by Laurentin and Joyeux clearly is sufficient to produce the type of simultaneity they find so unnatural. Indeed, beginning to pray audibly with the third word of the Our Father is as good a cue as beginning to pray audibly with the first word. It is, of course, poor science to represent as a verifiable fact the belief that the apparition recites the first two words.

Likewise, the convergence of the gaze is usually toward the front of the room when the visions take place within a church. Even Laurentin and Joyeux observe: "The visionaries' gaze converges on the same well-located spot." Again, gazing at a well-known location is something that may be learned and conditioned naturally, thus producing the simultaneity reported.

In one videotape recording the experience of visionaries Jacob and Marija, I observed that after assembling at the front of the room to begin the supposed encounter with Mary, Jacob began to gaze upward as he crossed himself. About one second later Marija did the same. Aside from the fact that the supposed apparition takes place at the same time in the schedule, both children had peripheral vision and could observe each other gaze upward.

The kneeling, which even Joyeux admits is not perfectly synchronized, occurs at the end of the recitation of the Our Father, which in turn is usually recited after the initial crossing. Another videotape shows that the near simultaneous kneeling by five of the visionaries also occurs at the end of the initial Our Father. A visual cue to kneel is not even necessary here because the end of the audible prayer could be a sufficient cue. Such simultaneity in kneeling can even be achieved without visual cues in multiple locations if the worshippers are all listening to the recitation of the Our Father on a radio.

Although near-simultaneous behavior is considered an indication of an "objective" experience for Joyeux, non-simultaneous behavior does not appear to be evidence for a "subjective" experience. Laurentin and Joyeux report, "The visionaries had independent conversations and even had different conversations simultaneously at times." They use an unverifiable phenomenon to explain the variable conversations--namely the possible use of different channels of supernatural communication by the Virgin. However, each informant may be constructing his or her own imaginary dialogue. Furthermore, the type of coherence that they cite in the apparition reports can also derive from the common imagery and forms of speech that are stereotypical in the Marian subculture.

Joyeux wasted a unique opportunity to design experiments that would have provided more of a challenge to skeptics on the issue of simultaneity. Indeed, his experimental design was quite careless. For example, since even Joyeux repeatedly claims that normal vision or hearing is not necessary to perceive the apparitions, each of the visionaries could have been blindfolded before they assembled at the front of the room. Earphones that render any external sound inaudible could have been placed upon them. Yet, there were no reported attempts to cover their ears or eyes throughout an event.

Partitions could have been placed between the visionaries to exclude the possibility of cues from air disturbances produced by body movements (e.g., kneeling). A more rigorous experimenter might have spun all the visionaries around and pointed them in different directions within the partitions. If those visionaries truly had a special ability that was not based on normal hearing or seeing, then we would expect them to have all heard the apparition calling them from the same spot at the same

time. We would expect that each of the children initially pointed in different directions would turn simultaneously toward the same direction even if blindfolded. If a recorded version of the Our Father were recited to each visionary at different times through the earphones, we would still expect them to ignore the voice on the earphones and kneel in synchrony with the supposed actions of the apparition.

Insofar as experimental design is concerned, the exaggerated claims of Joyeux are most apparent in the "screening test" he discusses. What Joyeux describes as a "screening test" and a "screen" actually refers to the brief placement of a postcard-size object in front of Marija and Ivanka. It does not block out peripheral vision. Note how Joyeux interprets the brief visual screening test: a screen which is held up does not block out the perception of the apparition. Again Joyeux assumes a priori the existence of the supernatural object that the youngsters claim to perceive. What Joyeux actually observed is that the gaze of two visionaries remained fixed when a postcard-size card was placed in front of them. Such a fixed gaze does not constitute proof for the existence of an object at the point in space where the visionaries are looking because one can observe that during prayer many worshippers in Christian and non-Christian religions gaze upward at what they believe to be heaven even when temple walls or other screening objects are interposed.

However, even if rigorous visual and auditory blocking procedures were used, they could not eliminate the possibility of a learned simultaneity after 1983 when the whole schedule became very regular and lasted one to two minutes. In sum, the simultaneity cited by Laurentin and Joyeux, even if genuine, is not extraordinary, and it does not constitute evidence for the objectivity of the experience at all, especially in light of poor experimental design.

The Incoherence of Laurentin and Joyeux's View of 'Objectivity'

Perhaps the most disturbing aspect of the conclusions of Laurentin and Joyeux is that they use the word objective in a wildly inconsistent manner, resulting in special pleading and in logically absurd conclusions. For example, in a discussion of whether the phenomena exhibited by the visionaries are supernatural, they state, "As research has not reached any objective proofs, it would be difficult to discuss the matter in the absence of definite criteria." But they still purport to have proof in favor of the objective experience of the visionaries. Note their reasoning: The mere fact that others present do not see the apparition which is visible only to the visionaries in no way proves that it is a perception without an object. It simply proves that the manner of perceiving is not the same as that involved in the perception of other ordinary material objects. . . . Bats, for example, are capable of discerning certain radiations that escape us. Other, more radically different, means of perception may well exist. A claim for an ability does not prove that one possesses the ability, and Joyeux's example of animals who possess abilities that humans do not will not help his case. And in the case of bats, the existence of their ability to hear high frequency sounds is not based on a claim made by the bats. We can verify empirically (e.g., by means of instruments) and with mathematical precision the existence of both the object (high frequency sounds) and the special and quantifiable ability of bats to perceive that object. The criteria and methodology are sufficiently objective to elicit the agreement of both atheists and Christians.

Such is not the case with the visionaries. Laurentin and Joyeux themselves admit that no experiments, videotapes, or other instruments have been able to detect the object that the visionaries claim to perceive with an equally unverifiable and non-quantifiable ability. They are apparently aware of this difficulty in their logic, and so they attempt to plead the case of the visionaries by using even more speculative hypotheses and conclusions. Our tests tend to lead us to the hypothesis of a person-to-person communication which takes place at a spiritual level, analogous to the angelic act of knowing. Such statements clearly show that theology, not rigorous science, motivates their plea for the visionaries.

Note also the logical problems produced when they discuss the definition of a "hallucination." The Concise Oxford Dictionary defines hallucination as "apparent perception of external object not actually present," which might fit the case of Medjugorje if a priori one held that an object from another world does not exist or if one understands "not actually present" in a purely empirical way. Medically speaking "hallucination" indicates a pathological state and it would appear to us that use of the word should be restricted to psychiatric illness. But if one does not deny a priori the existence of the object that the "psychiatric" hallucinator claims to see, then it follows that the claims of the latter have no less validity than those of the Medjugorje visionaries. Since the objects seen by the psychiatric hallucinator and the Medjugorje visionaries are equally invisible to other people and to cameras, then it is only special pleading, not verifiable criteria, that leads Laurentin and Joyeux to affirm the credibility of the Medjugorje visionaries while denying credibility to the "psychiatric" hallucinator. Thus, Laurentin and Joyeux provide no verifiable reason to ascribe accuracy to the perception of the six who claim to see Mary, and yet deny the accuracy of the perception of the thousands who claim to be equally certain that they do not see Mary.

Conclusion

A supernatural explanation for reports of Marian apparitions is unnecessary, unverifiable, and ultimately self-defeating for

believers. It is unnecessary because we have verifiable and repeatable experiments that show that otherwise "normal" people can and do report seeing and hearing non- occurring events. It is unwarranted because the criteria, methods, and assumptions are unverifiable. It is ultimately self-defeating because believers themselves would have no way to refute, by verifiable means, the claims of "apparitions" made by non-Christian religions.

We need not firmly diagnose the experience of the visionaries as a psychiatric hallucination or a delusion in the sense of the authoritative definitions of the Diagnostic and Statistical Manual of Mental Disorders (DSM- III) (American Psychiatric Association [APA] 1980). Though we do not a priori exclude psychiatric factors, our point has been that the normal social processes and internal logic of their Marian subculture are sufficient to explain their behavior. To refute Joyeux,, we also need not enter into the recent debates about whether the criteria of the APA are subjective or culturally biased against religious phenomena.

The refutation of Joyeux ultimately rests on the fact that he does not fulfil the requirements of the two adjectives in the title of his own book: Scientific and Medical Studies on the Apparitions at Medjugorje. By his own words science has not reached any "objective proofs," and all the evidence he offers is unverifiable theology (e.g., "the angelic act of knowing"). Since the main principle of scientific inquiry is verifiability, his constant use of unverifiable theological hypotheses to support the visionaries nullifies any claim to scientific or medical validity for his studies and conclusions. It is no miracle that a supernatural explanation for the Medjugorje apparition reports has been rejected by both a Catholic bishop and secular humanists.