13

Medical and Scientific Investigations

Medical & Psychological Examinations of the Visionaries

We learn from the tape transcripts that on 27 June 1981, three days after the visions began, the visionaries were taken for a police interrogation and medical inspection at Citluk. They were examined by a psychiatrist, but this procedure was apparently inconclusive, and the evidence on the tape suggests that at least some of the visionaries were far from cooperative. Two days later, on 29 June, they were again taken for a medical examination, firstly to Citluk, and then to Mostar. Here they saw a Dr Dzudza, a female psychiatrist, who, according to Ivanka, apparently threatened them with incarceration in a psychiatric ward if they continued to go to Podbrdo; but she could find no definite grounds for detaining them. They were also examined by various doctors including Dr Ludvik Stopar, who is described as a "psychiatrist and parapsychologist." Parapsychology is the study of claimed psychic phenomena such as near-death and out-of-the-body experiences. His conclusion was that they were not suffering from mental illness, and this seems to have been the position of those doctors who did examine them in the early years. Given the evidence presented previously, though, particularly that pointing to a diabolical origin for the visions, and also the likelihood of later visions and messages being fabricated, this is perhaps only to be expected.

And in any case, as Fr Laurent Volken says, in his *Visions, Revelations, and the Church,* an important work on the subject, it is

crucial to realize that "the examination of the psychological makeup alone can never be the basis of a judgment in favor of the divine origin of a revelation. Only by a supernatural process can we in the long run judge supernatural facts."

The initial commission set up by Bishop Zanic also did some basic work in this area, with a priest member, Fr Nicolas Bulat, applying an old-fashioned test to Vicka during one of her visions. He pricked her in the shoulder with a needle, drawing blood, but there is some dispute as to exactly how much of a reaction there was to this on her part.³³¹ In fact, this first commission did not apparently carry out any detailed medical examination of the visionaries, because over time they had gradually come to the conclusion that their ecstasies were not genuine—thus they did not see such examinations as a necessity.

Dr Henri Joyeux's Medical Experiments

Dr Henri Joyeux, a French cancer expert, assembled a team of specialists to examine the visionaries on three occasions in 1984, from 9-10 June, 6-7 October, and 28-29 December. After numerous tests, they came to the conclusion that they were not suffering from individual or collective hallucinations or hysteria. They also concluded that the visionaries were not subject to neurosis, phobias, depression, nor to catalepsy, a condition characterized by lack of response to external stimuli and by muscular rigidity. Similarly, they denied that the visionaries' ecstasies were "pathological" in nature.

However, it is unclear how they could have come to such definite conclusions, since of the five members of the team, only one, Dr Jean Cadhilhac, a neurophysiologist—that is someone concerned with diagnosing problems with the functioning of the nervous system—could be said to have qualifications directly pertinent to some of those conclusions; the other members of the team were qualified in ophthalmology (eyes), otorhinolaryngology (ear, nose and throat), and cardiology (heart). The type of conclusions they came to would seem to require specialists more in the realms of psychiatry and psychology.³³²

Apart from that, there are also questions concerning the objectivity of Dr Joyeux, since, as Marco Corvaglia points out, he had links to the Charismatic Renewal and was close to Dr René Le-

jeune, a leader of the movement in France. And as we have seen, Dr Lejeune was the co-author, with Fr Laurentin, of the *Chronological Corpus of the Messages*, and in addition, Dr Joyeux also wrote the preface to one of Lejeune's books. ³³³

This is not to question his basic competence, but just to point out his connections with the Charismatic Renewal which may have colored his attitude to the visionaries and their claims. Certainly, he and his team can be criticized for a lack of rigor in their dealings with them.

In connection with the medical and psychological status of the visionaries, Bishop Zanic wrote to Fr Laurentin in January 1985, pointing out that: "It is not hallucinations that I wish to stress. That was the interpretation of one of my doctors. I now believe that it was something worse—simulation." In response, Fr Laurentin claimed that, "our tests ... ruled out the possibility of simulation," but there is no clear indication in the text he co-authored with Dr Henri Joyeux, *Scientific and Medical Studies on the Apparitions of Medjugorje*, that tests for simulation, that is lie detector tests, were carried out by the French medical/scientific team assembled under Dr Joyeux. In any event, as we will see, there is no guarantee that such tests are accurate.

Indeed, the French doctor was conscious of the possibility that the visionaries could have been lying, as this statement from his evaluation makes clear: "Perhaps we are dealing with collective deceit? Would not a lie detector eventually unmask such deceit? In facing up to these … questions our team was conscious of a number of handicaps which are important to define." He then goes on to pinpoint the linguistic and logistical difficulties they faced in carrying out their tests—the team had to rely on translators, and faced difficulties in transporting their scientific equipment back and forth from France to Yugoslavia.³³⁴

Fr Laurentin makes much of the fact that the visionaries, during their alleged ecstasies, did not feel pinching, touching or other stimulation. But the tests carried out—on brain activity, the heart, eyes, hearing, and larynx function—were clearly not capable of eliminating the possibility that the visionaries were able to enter into self-induced trances. Just because the tests apparently ruled out factors like hallucination or mental illness, this does not rule out

the possibility of deception. Fr Laurentin points to the encephalogram done by Dr Joyeux's team on Ivan, on 10 June 1984, and claims that this rules out epilepsy and "pathological" hallucination. However, the crucial fact, surely, is that it does *not* exclude the possibility that Ivan was not necessarily telling the truth, that he was not actually in any sort of genuine "ecstasy." ³³⁵

It is interesting to note that another test had been planned, to verify the claim of the visionaries that they could "touch" the Vision. This would have involved photographing them from the side and noting the position of their hands. But on the same day, 10 June, Jakov claimed that he had forgotten to ask the "Gospa" about this, and later, in October, Ivanka and Marija said that the Vision would not agree to it.³³⁶

A test done on Marija and Ivanka, on 7 October 1984, illustrates the essential weakness in the approach adopted by the investigators. During a vision on this day, Dr Jacques Philippot placed what is described as a "screen" in front of their eyes, and we are told that neither of them "noticed the screen that was placed between them and the apparition and it did not interfere with the perception of the apparition."337 Photographs of these incidents in the book show that this screen was actually a small piece of card, which would not have interfered with their peripheral vision. The important point to notice, however, is that the researchers, instead of adopting a critical attitude to the claims of the visionaries, assume that they really are seeing something supernatural. Thus, they did not take a truly scientific approach to their task. A much more rigorous and questioning attitude was required. How did they know that the visionaries were actually seeing anything? The only evidence they had was what they were being told by the visionaries themselves.

Dr Margnelii's Other State of Consciousness

An Italian doctor, Dr Marco Margnelli, in an interview given in 1988, following his investigations, stated that the visionaries "pass into another state of consciousness—a condition that one can also reach through meditation techniques, such as auto-training, though not as profoundly." He went on to say that he didn't believe that

they were lying because "otherwise they would react to tests of a sensory and painful kind."³³⁸

It is not clear how the latter points rule out the possibility of lying, since it is quite possible to envisage a person in such a trance becoming largely impervious to pain—and as we will see, the tests in these areas were inadequate in some important respects. But it is interesting that he can describe the ecstasies of the visionaries in terms of a condition akin to a self-induced state of alternative consciousness, with the difference between them being their depth or intensity. Certainly if one can enter a self-induced trance, then presumably with practice this process could be refined to produce a much deeper state of mental and bodily abstraction. This factor may well explain why during their ecstasies some of the visionaries were allegedly impervious to loud sounds or very bright lights.

But even here, there is room for doubt regarding the test on Ivan's hearing done by Dr Francois Rouquerol. He reacted to a sound of 70 decibels before entering his "ecstasy," but apparently didn't react to one of 90 decibels—equivalent to the sound of heavy traffic—during his ecstasy, telling the investigators that he heard nothing. The problem with this test, though, is that there was no objective and independent way that the doctor could verify this; he relied entirely on Ivan's testimony. And even though this test was only done on Ivan, a few pages further on in the Laurentin/Joyeux book we are told that "the visionaries do not hear [a] noise level of 90 decibels." Thus the unscientific result of Ivan's test was improperly applied to all the visionaries, giving a false picture of the situation. This procedure, again, shows a lack of scientific rigor on the part of the investigators, and a tendency to give far too much credence to the visionaries' claims about seeing the Blessed Virgin. ³³⁹

And regarding the claim that the visionaries could have very bright lights shone in their eyes, without their pupils reducing in size, as is normally the case, such assertions are questionable. Dr Maria Magatti claimed that during a test, which she herself admitted was "inadequate, and too quick," she shone a 1000 watt cineprojector light onto the eyes of the visionaries during their ecstasies "without causing any modification in the diameter of the pupils"—normally, this type of thing will cause the pupil to contract. But this finding was contradicted by the results of later tests. Dr Jacques

Philippot, an ophthalmologist, carried out tests on the visionaries on 6-7 October 1984, and discovered that: "The pupil continues to react to light during the ecstasy." And his was also the case during later tests carried out by Dr Frigerio and his associates, and Dr Mario Cigada.³⁴⁰

All of this is quite apart, of course, from the possibility of a diabolical involvement in these "ecstasies," which could equally account for their claimed qualities.

Returning to Dr Margnelli's claims, he thus argues that people can pass into another state of consciousness via meditation techniques, but qualifies this by saying that in his opinion they cannot do this to the extent found regarding the Medjugorje visionaries' ecstasies. Surely, though, it's legitimate to ask whether Dr Margnelli was justified in being so certain that this couldn't happen. He is described as a neurophysiologist, that is, a specialist in the functioning of the nervous system. He is usually dealing, presumably, with people with various abnormal conditions, and so trying to analyze exactly what is behind the Medjugorje visions is something really beyond his experience. Whether the visions are supernatural, or merely preternatural or diabolical, or even just fabricated, then this is certainly the case.

Thus, his conclusion that the "other state of consciousness" assumed by the visionaries could not be due to meditation techniques is not justified. Had he examined anyone else who had been claiming visions for what was at the time a period of seven years? That was certainly a long enough time for the visionaries to have practised techniques enabling them to enter into deeper trance-like states. How many other people in a similar state had he studied, and of those how was he able to determine which ecstasies were genuine and which false? The reality is that scientific methods, on their own, cannot tell us the exact nature of such alleged visions, which can only ultimately be judged through a process of spiritual discernment.

Dr Margnelli also stated that he had *not* done an electroencephalogram on the visionaries as this had already been done by the French investigators; he relied rather on "several other checks and investigations."³⁴¹

The EEG Results of the Visionaries

Electroencephalography, (EEG), records electrical activity in the brain using electrodes placed on the scalp; it is used in neurology mainly to diagnose epilepsy. If we turn to some of the EEG work carried out by the French team we can see the results they obtained. Regarding Ivan, during a test which lasted about thirty minutes, covering the time before during and after his vision, he did not sleep or dream, but remained in a state of "alpha rhythm" brain activity, which is described as a "rhythm of wakefulness and receptivity, the rhythm of a contemplative in calm prayer." The test was regarded as eliminating the possibility of pathological hallucination.

Regarding the tests done on Marija and Ivanka, there was apparently no sign of any "cerebral anomaly" or "pathological symptoms." Fr Laurentin tells us that:

The graphs recorded before, during and after the apparition *show only minimal differences*. Before the apparition, especially in Marija's case, we find the presence of the beta rhythm, the rhythm of attention and reflection, and also the alpha rhythm, indicating the state of wakefulness. *The latter predominates progressively from the beginning of the ecstasy.* ³⁴²

It's hard to see how though, from these results, it can be claimed that there is any proof that the visionaries tested were in a "deep ecstasy." Ivan's brain rhythm is described as being like that of someone calmly praying, while in the case of Marija and Ivanka the graphs show only minimal differences in their brain activity before, during, and after the test, with a state similar to wakefulness developing as Marija's vision, in particular, went on.

The Italian neurophysiologist, Dr Francesco D'Alpa, is critical of both of these tests. In the case of Ivan this is because of the, "short duration of ecstasy, about 62 seconds, a time quite insufficient to assess any possible changes relative to the basic graph."

Regarding Marija, he says:

As regards the EEG obtained on Marija ... the new datum would be the observation that alpha rhythm 'predominates progressively from the beginning of the ecstasy.' One may legitimately ask what is the reliability of this information, which comes from a subjective assessment on an encephalogram of very poor quality. He goes on to say, "the 'ecstasy' of Marija lasted only 102 ± 2 sec, a period during which it is very difficult to assess ... the percentage amount of the various sequences of rhythms."

Overall, Dr D'Alpa, points to deficiencies in the planning, implementation and evaluation of these tests, and sees them as characterized by "methodological deficiencies" and "arbitrariness of evaluation," criticisms which he also applied to many other aspects of the group's work. He concluded that a report such as the one produced by Dr Joyeux could never be accepted by a serious medical journal.³⁴³

The Visionaries' Ecstatic Experiences Analyzed

Fr Laurentin describes one of the visions videoed by the scientific team as follows:

To prepare themselves for the apparition the visionaries, standing, recite several Our Fathers, Hail Marys and Glory Bes until 'The Gospa' appears. During the early months they usually recited each prayer twice or three times before the apparition took place. Since the end of 1983, ecstasy begins before they have finished the first Our Father.³⁴⁴

The first thing to notice about this, from a critical perspective, is that by this time, the ecstasies of the visionaries were happening at a particular moment which they knew was coming, that is before they had finished the first *Our Father*. It is not as if these visions were happening completely unexpectedly. In fact, what is actually taking place here is that from the end of 1983, it was the visionaries themselves who were effectively determining when their visions began, rather than waiting for the "Gospa" to appear. This point on its own raises all sorts of problems and is a very strong indication that nothing supernatural was going on. Fr Laurentin continues:

Suddenly their gaze, already fixed on the location of the apparition, becomes more intense. There are hardly any movements of the eyelids ... They kneel down very naturally, all at the same moment. The movement is not perfectly synchronised, a fact that might be attributed to their differing reaction times, or the difference in their reflexes. But we have never noticed a signal being given.³⁴⁵

Of course, there would be no need for an obvious signal to be given because the very act of kneeling down, which he admits was not done exactly simultaneously, coming as it did during the *Our Fa-*

ther, could have acted as a cue in itself. In other words, one of the visionaries could have begun to kneel down and the others followed very quickly. We should remember that these were fit youngsters, who had been having these experiences since mid-1981.

Video evidence makes it clear that this act of kneeling down by the visionaries was not simultaneous on other occasions too. For example, footage from one video clearly shows Ivanka kneeling down more quickly than Vicka, while another video again features Ivanka, but this time standing behind Jakov, so that she was outside his field of vision. Again, her kneeling down is noticeably quicker than his. 47

A word or two about "reaction time" is appropriate here. A good deal of research has been carried out on this subject, and "the accepted figures for mean simple reaction times for college-age individuals have been about 190 ms (0.19 sec) for light stimuli and about 160 ms for sound stimuli." As might be expected, with practice, reaction time can be reduced, and being warned in advance also leads to a faster reaction time. This means that the reaction time of a fit young person to a visual stimulus can certainly be of the order of 2/10 of a second, and even quicker for sound stimuli. Since such short reaction times are possible, it is clear that claims of apparent simultaneity for the visionaries in response to alleged supernatural stimuli are very difficult, if not impossible, to verify.

Nor is it really possible to argue that if the visions were false, then we might expect a "ripple" effect, in which one visionary would quickly follow another in kneeling down, followed by another, followed by another, each within their own reaction times, a process which would naturally take longer than a single person's reaction time. This is because they were generally very close together, and could either hear the air movements from those around them, or through their peripheral vision see movements and react very quickly to them. So it is not a question of falsity requiring a time-consuming "cascade" of movements, but rather of one visionary kneeling, and then the others very quickly following suit, with all this generally happening within the approximate duration of one person's reaction time. But having said that, as already pointed out, the video evidence indicates that at least on some occasions there

was a noticeable time lag between the movements of particular visionaries.

Fr Laurentin then comments on what happened next: "Their lips can be seen moving but no voices are heard ... Suddenly, all their voices become audible, and they say, in Croatian, 'who art in heaven'; 'hallowed be thy name' etc. The opening words, 'Our Father' are not pronounced."³⁴⁹

Once again, there is nothing necessarily supernatural about this, and whether a group begins to say a prayer with the first word, or, as in this case, with the third word, this does not of itself rule out a natural explanation. It would only be necessary for one of the visionaries to begin on the third word, and then, as in the case of their kneeling down, for the others to follow quickly. And in fact there is video evidence of exactly this, where one can hear, in a video dating from 9 December 1983, Ivanka, on hearing Vicka say the word *koji* ("who"), carrying on the prayer from the words *jesi na nebesima* ("art in Heaven"). Similarly, on another video, dating from 31 December 1984, one can hear one of the visionaries clearly say the same word *koji*, before the others take up the rest of the prayer in chorus, but only *after* hearing that word.³⁵⁰

What is certainly clear from these observations of the visionaries in "ecstasy," is that the scientific experiments designed to test these claims were far from rigorous. Pictures in the book, and video evidence, show the visionaries wired up to various pieces of apparatus, but there is no indication that they were blindfolded, or fitted with earphones, so as to exclude visual or auditory cues from one to another. Similarly, if the experiments had been conducted with true scientific rigor, surely a far more accurate analysis would have been obtained if they had been placed in separate partitioned areas, so as to exclude cues from air disturbances caused by the person next to them kneeling down quickly.

Inaudible Voices

Ivanka's voice and larynx function were tested on 28 December 1984, by Dr Francois Rouquerol. This was to discover why the visionaries' voices became inaudible once ecstasy proper had begun. At this time, according to the evidence recorded by the instruments, there was no longer any larynx movement, only that of the

lips—a process which is described as "articulation without phonation." The problem with this is that there is no way of determining whether these lip movements without sound actually corresponded with genuine language. Fr Laurentin acknowledges that they were unable to find anyone capable of lip reading in order to determine this point. And it is just as easy to argue that all that was happening was that the visionaries were moving their lips without making any sounds—something anybody can do.

This question could possibly have been decided on Friday 8 March 1985, when Dr Luigi Frigerio, accompanied by two colleagues, attempted to test Vicka during a vision, by attaching a laryngophone to her larynx (voice box). This device can pick up very low-level sounds produced by a patient's larynx. But this vision only lasted 22 seconds, well below the usual length, and thus there was no time to properly check Vicka's larynx function during ecstasy. Her explanation for this was that the "Gospa" had looked at the apparatus and said: "It is not necessary." ³⁵¹

We can contrast this incident with one involving Ivan. He was videoed while in an alleged ecstasy during a Medjugorje celebration at Aylesford in Kent, England, in 1996. From the footage it seems as though Ivan's lips are moving without any words being audible, but when the sound is turned up, speech can clearly be heard coming from him. So on this occasion at least, there was no question of "articulation without phonation." What is particularly disturbing about this incident, though, is the expression on Ivan's face: it is totally bland and unenthusiastic, with a complete lack of evident joy or intimacy, let alone rapture.³⁵²

Dr Frigerio went on to claim that the experiences of the vision-aries could only be preternatural or supernatural, and further stated that if they were preternatural then the visionaries would not be free, but, since they were apparently free, then they must be supernatural. But this idea goes against the basic Catholic principle of the freedom of the human will, that is, that no outside spiritual agency can absolutely control how we act—except possibly in exceptional cases of diabolical possession—although they can influence or tempt us. So even if someone is experiencing a preternatural experience, they still retain their essential ability to act and make free choices.

Multiple Conversations

One of the strangest aspects of the whole Medjugorje story is the way that, according to Fr Laurentin, the "Virgin may give a message to one without the others hearing and *they can hold independent conversations simultaneously.*" Dr Joyeux made a similar observation, saying, "each one of them appeared *simultaneously and successively*, to receive information from and converse with a person whom we as doctors have never seen."³⁵⁴

In other words, it is claimed that the "Gospa" could speak with more than one visionary at the same time. This is certainly an interesting claim in the light of what has taken place during the approved Marian apparitions. We do not find this happening at Fatima, nor at Beauraing, which in terms of the number of seers and their ages is the approved apparition which most closely corresponds with Medjugorje—although not as regards duration, since the apparitions at Beauraing only lasted between November 1932 and January 1933, a matter of a few months. At La Salette, Our Lady did speak to the two children separately, but only in order to impart separate secrets to them, which the other child could not hear. Regarding Beauraing, at various times during the apparitions, she spoke to one or another of the children, but again when she gave the three youngest personal secrets during the last apparition, this was done to each of them separately and not concurrently. 355

In the light of all this, it does not seem at all likely that the visionaries were actually speaking in this manner to a genuinely supernatural visitor.

Fr Laurentin explicitly states that the visionaries recited the *Our Father* with the "Gospa," and this fact of itself raises an acute problem. Would the sinless Blessed Virgin Mary repeatedly recite this prayer which includes the phrase, *and forgive us our trespasses* [sins]?—this would not appear to be theologically possible.³⁵⁷

Fr Laurentin also comments on the fact that Dr Ludvik Stopar hypnotized Marija, and that under hypnosis she gave the same account of her experiences as when in her normal condition, except that she also revealed the alleged secrets she had received.³⁵⁸ This is taken as proof that the secrets are genuinely supernatural, but, of course, that is not necessarily the case. The secrets may not have been genuine supernatural revelations, yet the visionaries may well

have not told anyone outside their particular circle of their contents.

Dr Joyeux gave an interview to *Paris Match* in the summer of 1985, during which, speaking of the various experiments that had been carried out on the visionaries, he acknowledged quite plainly that: "None of them gave scientific proof that the Virgin is appearing to the visionaries and this is impossible to achieve." Even Fr Laurentin was forced to admit that, "the object [sic] who appears to the young people ... will always remain outside scientific experimentation. We will always be limited to hypotheses in that regard." 359

Interestingly, Louis Bélanger tells us that his own researches in Canada showed that it is quite possible—using volunteers in tests done under laboratory conditions—to duplicate the states of consciousness found during the above medical tests done on the visionaries, and thus that there is nothing necessarily supernatural about them. Specifically, Bélanger's team recorded the following data with one adolescent subject: non-blinking of the eyes; acceleration of the cardiac rhythm; and a pattern of continuous alpha brain waves with the eyes open—with all of these phenomena produced in a normal state of consciousness, as the subject was aware of his environment and able to respond to instructions.³⁶⁰

Further Experimentation in 1985, 1986 and 1988

In September 1985, Dr Luigi Frigerio led a group from the *Associazione Regina della Pace*, ("Queen of Peace Society"), which carried out further tests on the visionaries. It should be noted that this society was specifically pro-Medjugorje, and that Dr Frigerio is something of a Medjugorje devotee, so its objectivity can certainly be called into question.

One of these tests was the algometric test, and this was done by Professor Maurizio Santini, who was in charge of examining the visionaries' sensitivity to pain. This test involved using an algometer with a metal plate that could be heated up and applied to the subject's skin. Three of the visionaries, Jakov, Ivan and Marija, were tested while in "ecstasy," with Professor Santini limiting the reaction times for the pain threshold, in order to prevent skin lesions. The device was attached to various parts of the visionaries' bodies,

including the fingers, wrist and forehead, and it was claimed, to give one example, that when in "ecstasy," Ivan's reaction time when tested on the forehead increased by a factor of 700%, from 0.4 seconds while outside ecstasy, to 2.8 seconds during his ecstasy. In other words, it was being claimed that the visionaries' pain threshold greatly increased during ecstasy, and that this was a sign that these ecstasies were "supernatural." But it should be noted that 2.8 seconds is not very long, and the experiment had been specifically set up to avoid the danger of skin lesions, therefore the device could not have been excessively hot.

And also, as Marco Corvaglia points out, there is quite a subjective element to these tests since it would have been quite possible for the three visionaries, while not in "ecstasy," to react as soon as possible to the pain, and conversely, while in their alleged ecstasies, to resist the pain as long as possible, bearing in mind that we are not talking about extreme levels of pain here, or excessive time durations. And as he also notes, the difference in reaction times for Jakov was only 0.6 seconds, which is hardly exceptional, while with Marija, since she was recovering from a form of stroke at the time, and the resultant hypoesthesia—that is a diminished sensitivity to touch, temperature, and pain—her test results are clearly unreliable.³⁶¹

The following year, on 14 January 1986, a self-appointed "French-Italian scientific theological commission," which consisted of "seventeen renowned natural scientists, doctors, psychiatrists and theologians," following tests on the visionaries, issued a 12 point conclusion, which amongst other things made the following four assertions:

1. On the basis of the psychological tests, for all and each of the visionaries it is possible with certainty to exclude fraud and deception.

2. On the basis of the medical examinations, tests and clinical observations etc, for all and each of the visionaries it is possible to exclude pathological hallucinations. 3. On the basis of the results of previous researches for all and each of the visionaries it is possible to exclude a purely natural interpretation of these manifestations. 4. On the basis of information and observations that can be documented, for all and each of the visionaries it is possible to exclude that these manifestations are of the preternatural order i.e. under demonic influence.³⁶²

We can agree that the scientists were competent regarding the second point, that is regarding "pathological hallucinations" but it is obvious that they exceeded their competence with regard to matters such as excluding fraud and deception, or the demonic. Such scientific investigations, of their very nature, cannot categorically exclude the latter, while deception is always a possibility which must be taken into account.

Apart from the fact that the Medjugorje visionaries were in some way "disconnected" from the real world during their trance-like condition, according to Dr Philippe Loron, in an interview published in 1989, there was a very close synchronization between the eye movements of the visionaries while they were "seeing" their alleged visions—to within 1/5 of a second when the ecstasy began, and when it finished.³⁶³

On the face of it, this seems like strong evidence to support the genuine nature of what the visionaries experienced, but we have to bear in mind what was said above about reaction time, which, for visual stimuli, is of the order of 0.19 seconds. This makes it clear that this figure of 1/5 of a second for eye movement, (0.2 seconds) is only what we would expect given a normal reaction time.

The 1987 Medjugorje Commission

In January 1987, the formation of a new commission to study Medjugorje was jointly announced by Cardinal Franjo Kuharic and Bishop Zanic. It was composed of theologians and medical specialists, who met twenty-three times in Zagreb, between April 1987 and September 1990. Following their work, the Yugoslav Episcopal Conference issued the Zadar declaration in April 1991. This stated that: "On the basis of investigation up till now, it cannot be established that one is dealing with supernatural apparitions and revelations." This was thus, in essence, a judgment of *non constat de supernaturalitate*, that is, the supernaturality of the alleged visions had not been proved. Nineteen out of twenty bishops on the commission voted in favor of the declaration, with only one abstention.³⁶⁴

The Commission had established a medical sub-committee of six specialists to examine the psychological status of the visionaries; their work involved looking at the available medical documenta-

tion, and also examining the six visionaries in the light of *Normae Congregationis*. This is the 1978 document, issued by the Congregation for the Doctrine of the Faith, which is concerned with the discernment of claims of private revelations. We will be looking at this document in detail in a later chapter. The sub-committee included three neuropsychiatrists, a psychiatrist and a psychologist, and concluded that the visionaries were "psychically balanced," and that they didn't show signs of mental illness, or "psychopathological inclinations". They also concluded that there was no evidence of mass hysteria or psychosis or other phenomena of that kind ³⁶⁵

The results of the various medical examinations done prior to the publication of the negative decision of the earlier diocesan commission of enquiry in 1986 had not been considered valid by that body,³⁶⁶ and despite the above medical sub-committee giving the visionaries what was effectively a clean bill of mental health, as we have seen, the Commission itself came to a, at best, "neutral" conclusion. So clearly, they did not consider any of the thousands of alleged visions claimed by 1991 as proven. And so, it comes down to a choice between either believing that the visionaries did really see the Blessed Virgin thousands of times between 1981 and 1991, that they were deceived by the devil, or that they were not telling the truth. These would appear to be the stark alternatives.

Further Tests in Italy in 1998

Further medical tests were done on three of the visionaries, Marija, Ivan and Vicka, in Italy, from 22–23 April 1998, at the insistence of Fr Ivan Landeka, at that time the parish priest of Medjugorje, at a religious house in Capiago Intimiano, Como, Italy. The tests were conducted by a research team led by Dr Giorgio Gagliardi and Fr Andreas Resch, and their findings were published in book form in 2000. As Fr Laurentin tells us, though,

Vicka was there only for some general tests because Our Lady had asked her on the 20th of April to accept being deprived of the daily apparitions until June 4th. Vicka, who could refuse Our Lady nothing, accepted. It was difficult for her, but even so she remained in perfect jov.³⁶⁷

In other words, Vicka did not subject herself to any particular tests to determine her condition during any of her alleged ecstatic states during this period.

Because of Vicka's stance, the research team was only able to study Ivan and Marija, and on 22 April, Dr Gagliardi suggested that they be kept separate, in different rooms, when they were next in ecstasy; but as the time of the expected vision at 6:30 pm approached, this idea was frustrated by Ivan's insistence on staying with Marija.

As Marco Corvaglia points out, this refusal has to be understood in the context of Ivan spending half the year in the United States, where he claims daily visions, and Marija experiencing her own alleged visions at her home in Monza, Italy. Thus there was no good reason for them refusing the perfectly reasonable request of Dr Gagliardi, and this gives rise to suspicions as to why there was this insistence on their being together. In the event, the "ecstasies" experienced by the visionaries were simultaneous, coming during the recitation of the Our Father.

However, the next day, Dr Gagliardi once more requested that the visionaries be tested separately, so that they could not see or hear each other, and also be without access to a timepiece. On this occasion the visionaries agreed, and the result was there was a time difference of almost 5 minutes between the onset of the ecstasies of Ivan and Marija, although they are supposed to be synchronized.³⁶⁸

Marija also underwent tests on the same day with the aim of verifying whether her physiological state was altered during an ecstasy, a fact which might indicate an altered state of consciousness. One particular test involved ophthalmologist Mario Cigada assessing Marija's photomotor reflex and her blink reflex. The first of these involved seeing whether her pupils contracted when a beam of light from a small torch was directed at them, and the second was an assessment of whether or not Marija blinked when the cornea of her eye was touched with a piece of cotton wool. In the video of this experiment, it can be clearly seen that during her alleged ecstasy, Marija not only maintained her normal rate of blinking, but also exhibited the photomotor and blink reflexes of someone not showing any signs of an altered state of consciousness.³⁶⁹

It is worth noting that Dr Giorgio Gagliardi has adopted an attitude of great caution regarding the interpretation of the phenomenon of Medjugorje. From 1985 to 2002 he served as deputy director of the Center for Study and Research on Psychophysiology of States of Consciousness in Milan, and thus he is one of the few people involved in research on the Medjugorje visionaries to actually have first hand experience in the relevant disciplines.³⁷⁰

More Research on Mirjana, Vicka and Ivanka

Further research was carried out from 23–24 July 1998 at Medjugorje, this time on Mirjana, Vicka and Ivanka; while what is described as "psychodiagnostic" research involving Jakov also took place, and on 11 December 1998, psycho-physiological research involving Marija was undertaken in Italy. This work involved a team of scientists, who carried out a wide variety of tests, and came to the conclusion that the "[r]esults of the investigation carried out demonstrate that the ecstatic phenomenology can be compared to the one from 1985 with somewhat less intensity." They went on to say that they did not believe that the visions were states of "hypnotic trance," but there does not seem to have been any particular focus on the possibility of the visionaries entering self-induced trances.

The statement issued by the research team mentions the "Valsecchi truth and lie detection test," so this time they were definitely tested on this point. But there is no consensus that such tests are accurate or scientific. They are subjective and rely on changes in emotional responses; it is quite possible for someone who is telling the truth to be falsely accused of lying, and conversely for a determined liar to avoid detection. For the above reasons, evidence obtained from lie detector tests is generally inadmissible in American courts, and in those of a number of other countries.³⁷¹

More recent tests were apparently done on Ivan and Marija, on 25 June 2005, (the "anniversary" day of Medjugorje), by Dr Philippe Loron. However, no report has ever been published on these tests, and the only documentation available about them consists of statements by Dr Loron to the Croatian newspaper, *Slobodna Dalmacija*, dated 27 June 2005. These statements give no information about the members of the investigating team, nor an accurate de-

scription of which tests were carried out, nor provide any quantitative, and thus precise and verifiable, results. Thus they are deficient from all points of view.³⁷²

Marco Corvaglia points out too, that none of findings of any of these medical teams has ever been published in a recognized, peerreviewed scientific journal. Only by doing this, and being accepted as such, could any of these studies really be considered "scientific."

The Uncooperative Visionaries

At this point, it's worth summarizing some of the points made above, and including some additional information, to show how the visionaries were, at times, very uncooperative, and put the researchers to unnecessary trouble, or avoided the tests altogether by simply absenting themselves for various reasons. This is a summary of the relevant information on Marco Corvaglia's website.³⁷³

During Professor Joyeux's first visit to Medjugorje in 1984, on 9 June, three of the visionaries—Jakov, Ivanka and Marija—refused to subject themselves to the tests, even though the doctors had made the lengthy journey from France just for this purpose. But instead of being critical of this, Fr Laurentin merely commented that the "refusal was characterised by that solidarity so remarkable among the group." In response, the doctors pointed out that such a refusal made it appear that they were "afraid of the outcome." In reply, Jakov agreed to ask the "Gospa's" permission, which was duly given during that evening's vision.

Surely, though, the researchers should have realized at this point that they were being manipulated. They should have packed their bags and departed, rather than go along with the charade of accepting what one of the visionaries claimed he had heard. The whole point of such a scientific appraisal is that they were there to *critically* test the visionaries' claims, not to become part of an alleged response from the "Gospa." That was the fatal flaw in their approach: they effectively became part of the experimentation.

The next day some of the visionaries did consent to be tested, but that meant that only one day of actual testing was possible, and there were further problems during the October and December sessions, and indeed during some of the later series of tests as well. Jakov was not present for the 6-7 October sessions because he said he was ill, and Vicka was also absent on 7 October, again because of alleged illness. Vicka was again absent for the tests on 28 December, and the next day, both Jakov and Ivanka failed to turn up for their scheduled tests.³⁷⁴

Moving on now to Dr Frigerio's tests in March 1985, as we have seen, Vicka managed to avoid one particular test by claiming that the "Gospa" had looked at the apparatus and said: "It is not necessary." Dr Frigerio returned to Medjugorje the following September, but again, Vicka claimed that according to the "Gospa" such testing was unnecessary.³⁷⁵

Dr Giorgio Valli, a neurologist from Milan, went to Medjugorje in January 1987 to conduct comparative studies on the visionaries during their alleged ecstasies. But they all refused apart from Marija. Fr Laurentin commented on this as follows: "Since it was necessary to have two seers for this synchronic study, Professor Valli, who had brought, at great expense, a considerable amount of material with him, renounced his project."

There were more problems a few months later: "Professor Joyeux, who came back with the team on April 4-5, met with similar difficulties. He waited a whole afternoon at Vicka's house, ... [hoping] to be able to observe and film during her apparition; but she had the apparition in a purely private way." This led Fr Laurentin to further comment: "We admire the patience, the spiritual comprehension and the grandeur of the soul, with which several doctors have accepted the 'no' of the seers."

It might also be said that "credulity" or "naivety" are more suitable words to describe their attitude. But showing admirable perseverance, Dr Joyeux returned in January 1988, intending to conduct comparative studies in the laboratory, rather than use less reliable portable equipment. This would have involved the visionaries traveling to France. Jakov, however, refused to be involved, and although tickets for the others were bought, the day before departure, Vicka announced that the "Gospa" had asked for a pause in her visions, and that for some time she would not be appearing to her, while Marija claimed to have the flu. So, once again it was impossible to do a comparative study and everything had to be called off.³⁷⁷

Fr Laurentin summarized why it had become impossible to persuade the visionaries to undertake new tests, citing the unwillingness of some to be involved, the opposition of others, or their claiming to be too busy, or what he characterized as the "indifference of certain others." But even so, he strove to minimize all this saying: "Of course, for the Virgin these scientific studies are minor things."³⁷⁸

Tests during the Nineties

Two years later, in 1992, Fr Laurentin was forced to admit that while Dr Joyeux had "multiplied his attempts to gather at least 2 or 3 visionaries together (since we are talking about comparative studies)," all such attempts had failed.³⁷⁹

Four years after this, in 1996, the situation had still not improved, leading Fr Laurentin to comment that Professor Joyeux was still having to deal with indifference, disinterest and even opposition from the visionaries, who were apparently unconcerned about the tests. He continues:

For them the situation is this: Our Lady said to them, when they asked her about the opportuneness of these tests: 'It is not necessary' ... But the Professor did not give up. He came back to Medjugorje on May 15, 1995. But it was a useless journey. According to Vicka, all depends on Our Lady: 'She is the one who decides.'³⁸⁰

The situation had scarcely improved by the time the 1998 tests were conducted: on 22 and 23 April of that year, both Marija and Ivan agreed to be tested, but the results obtained on Ivan were largely unusable because of his high state of tension when connected to the equipment. And Jakov refused to be tested. Moreover Vicka, as we have seen, although she was present, could only be given general tests, since she claimed she was having no visions at that time because the "Gospa" had asked her for this sacrifice between 20 April and 4 June.

As Marco Corvaglia notes, the last "pause" in visions for Vicka had taken place over ten years previously, in January 1988, and that pause, too, had coincided with medical tests, in that case, those planned by Dr Joyeux.³⁶²

Three months later, Dr Gagliardi and Fr Resch went to Medjugorje, arriving on 23 July, confident, now that Vicka's "pause" was

over, that they could conduct tests on Jakov and her; but as before, the journey turned out to be largely fruitless. Although Mirjana and Ivanka said that they were ready to take part in some tests, since they no longer had daily visions it was clearly impossible to study them while in ecstasy, while Jakov was again unwilling to be tested apart from a simple psychodiagnostic examination.

But with regard to Vicka they were in for a surprise: she now claimed that she was undertaking another "pause" in visions, set to last 5 days, and that this had begun on 20 July. Fr Resch complained that something like this happened every time they came, to which Vicka responded: "As for your visit, Brother Slavko asked me if I could stay home from July 20 to St James [Feast of St James, 25 July], but I did not know if you'd come."³⁸³

In other words, Vicka's "pause" began on the very day that Fr Barbaric had informed her that the scientific team's arrival was imminent. This certainly seems like a very convenient "pause," giving rise to the suspicion that Vicka was avoiding having to submit herself to any detailed tests.

Fr Resch then attempted to make new arrangements for September, and Vicka agreed to go to Italy on 7 or 8 September, but according to Marco Corvaglia, there is no record of any tests having been carried out on those dates. He contacted Fr Resch about this, and was told that tests did not take place then and that instead he met Vicka in Medjugorje, but that no ecstasy took place during their meeting, and thus there was no opportunity to do any tests.³⁸⁴

The impression is given in some Medjugorje books that the visionaries willingly cooperated with all that was expected of them regarding the various tests, but as the above litany of evasion and excuses makes clear that this was far from the case. Apart from the very early tests, which focused on the mental health of the visionaries, and which involved most if not all of them, the various later tests are all, for one reason or another, unsatisfactory. In particular, Mirjana, Ivanka, and to a lesser extent Jakov, none of whom now claim daily visions, have undergone little or no scientific testing, while of the other three, Vicka has managed to avoid a good number of the tests, mainly by claiming that the "Gospa" had requested "pauses" in her visions. Rather conveniently, these pauses just happened to coincide with the times when the tests were being done.

In all this, the chief apologist for the uncooperative and obstructive attitude of the visionaries was Fr Laurentin, and in sum, the only rational conclusion that can be reached is that no credence should be given to the exaggerated claims made about these tests.

Thus we can say regarding all the various tests to which the Medjugorje visionaries have been subject, that none of them categorically demonstrates that their experiences are supernatural—indeed, this is in any case impossible to verify scientifically—nor have they been able to determine whether or not the visionaries have been lying. The other crucial point to make regarding these tests is that since none of them—apart from those conducted by the above mentioned medical sub-committee of the Yugoslav Episcopal Conference—was commissioned by the proper spiritual authority, then strictly speaking they have no relevance regarding the accurate discernment of what has been happening at Medjugorje. Only the Church possesses the divine authority and competence as regards such discernment.

As we have seen, then, there is clear evidence to suggest that the initial stages of the visions at Medjugorje were diabolically inspired, but as time went on there does seem to have been far less activity of that sort there. Thus, the later ecstasies at Medjugorje seem to have had more of a human element in them, and the conclusion that they are largely self-induced "trances" seems very likely. That is of course assuming that the use of words like "ecstasy" or "trance" can be justified, when in fact the EEG tests seem to indicate nothing particularly out of the ordinary was happening during the claimed experiences of the visionaries. Conversely, if individuals claim to see visions, then, as in the case of those who desire signs and wonders, this in itself opens up the possibility, if not the certainty, of diabolical intervention. Thus, the later activities of the Medjugorje visionaries during their trances may well have also unwittingly been subject to diabolical influence.