Abduction by Aliens or Sleep Paralysis?

A Roper Poll claimed that nearly four million Americans have had certain "indicator" experiences and therefore had probably been abducted by aliens. But a study of 126 school children and 224 undergraduates shows knowledge of aliens is related more to watching television than to having the relevant experiences.

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If you believe one set of claims, nearly four million Americans have been abducted by aliens. This figure has been widely publicized and is often assumed to mean that millions of people have been visited by members of an alien species and, in some cases, physically taken from their beds, cars, or homes to an alien craft or planet.

Personal accounts of abduction by aliens have increased since the publication of Budd Hopkins's books *Missing Time* (1981) and *Intruders* (1987) and Whitley Strieber's *Communion* (1987). There is considerable variation among the accounts, but many fit a common pattern. Wright (1994) summarized 317 transcripts of hypnosis sessions and interviews from 95 separate cases and concluded, "Numerous entity types have been visiting our planet with some regularity" (Part 2, p. 6). However, the "gray" is clearly the most common alien and

over the years a typical account has emerged (see, e.g., Mack 1994; Schnabel 1994; Thompson 1993).

The experience begins most often when the person is at home in bed (Wright 1994) and most often at night (Spanos, Cross, Dickson, and DuBreuil 1993), though sometimes abductions occur from a car or outdoors. There is an intense blue or white light, a buzzing or humming sound, anxiety or fear, and the sense of an unexplained presence. A craft with flashing lights is seen and the person is transported or "floated" into it. Once inside the craft, the person may be subjected to various medical procedures, often involving the removal of eggs or sperm and the implantation of a small object in the nose or elsewhere. Communication with the aliens is usually by telepathy. The abductee feels helpless and is often restrained, or partially or completely paralyzed.

In a typical sleep paralysis episode, a person wakes up paralyzed, senses a presence in the room, feels fear or even terror, and may hear buzzing and humming noises or see strange lights.

The "gray" is about four feet high, with a slender body and neck, a large head, and huge, black, slanted, almond-shaped eyes. Grays usually have no hair and often only three fingers on each hand. Rarer aliens include green or blue types, the taller fair-haired Nordics, and human types who are sometimes seen working with the grays.

The aliens' purpose in abducting Earthlings varies from benign warnings of impending ecological catastrophe to a vast alien breeding program, necessitating the removal of eggs and sperm from humans in order to produce half-alien, half-human creatures. Some abductees claim to have seen fetuses in special jars, and some claim they were made to play with or care for the half-human children.

Occasionally, people claim to be snatched from public places, with witnesses, or even in groups. This provides the potential for independent corroboration, but physical evidence is extremely rare. A few examples of stained clothing have been brought back; and some of the implants have reportedly been removed from abductees' bodies, but they usually mysteriously disappear (Jacobs 1993).

Theories

How can we explain these experiences? Some abductees recall their experiences spontaneously, but some only "remember" in therapy, support groups, or under hypnosis. We know that memories can be changed and even completely created with hypnosis (Laurence, et al. 1986), peer pressure, and repeated questioning (Loftus 1993). Are "memories" of abduction created this way? Most of Wright's ninety-five abductees were hypnotized and/or interviewed many times. Hopkins is well known for his hypnotic techniques for eliciting abduction reports, and Mack also uses hypnosis. However, there are many reports of conscious recall of abduction without hypnosis or multiple interviews, and the significance of the role of false memory is still not clear.

Another theory is that abductees are mentally ill. This receives little or no support from the literature. Bloecher, Clamar, and Hopkins (1985) found above-average intelligence and no signs of serious pathology among nine abductees, and Parnell (1988) found no evidence of psychopathology among 225 individuals who reported having seen a UFO (although not having been abducted). Most recently, Spanos et al. (1993) compared forty-nine UFO reporters with two control groups and found they were no less intelligent, no more fantasy prone, and no more hypnotizable than the controls. Nor did they show more signs of psychopathology. They did, however, believe more strongly in alien visitations, suggesting that such beliefs allow people to shape ambiguous information, diffuse physical sensations, and vivid imaginings into realistic alien encounters.

Temporal lobe lability has also been implicated. People with relatively labile temporal lobes are more prone to fantasy, and more likely to report mystical and out-of-body experiences, visions, and psychic experiences (Persinger and Makarec 1987). However, Spanos et al. found no difference in a temporal lobe lability scale between their UFO reporters and control groups. Cox (1995) compared a group of twelve British abductees with both a matched control group and a student control group and, again, found no differences on the temporal lobe lability scale. Like Spanos's subjects, the abductees were more often believers in alien visitations than were the controls.

A final theory is that abductions are elaborations of sleep paralysis, in which a person is apparently able to hear and see and feels perfectly awake, but cannot move. The *International Classification of Sleep Disorders* (Thorpy 1990) reports that sleep paralysis is common among narcoleptics, in whom the paralysis usually occurs at sleep onset; is frequent in about 3 to 6 percent of the rest of the population; and occurs occasionally as "isolated sleep paralysis" in 40 to 50 percent. Other estimates for the incidence of isolated sleep paralysis include those from Japan (40 percent; Fukuda, et al. 1987), Nigeria (44 percent; Ohaeri 1992), Hong Kong (37 percent; Wing, Lee, and Chen 1994), Canada (21 percent; Spanos et al. 1995), Newfoundland (62 percent; Ness 1978), and England (46 percent; Rose and Blackmore 1996).

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The Sleep-Paralysis Experience

In a typical sleep-paralysis episode, a person wakes up paralyzed, senses a presence in the room, feels fear or even terror, and may hear buzzing and humming noises or see strange lights. A visible or invisible entity may even sit on their chest, shaking, strangling, or prodding them. Attempts to fight the paralysis are usually unsuccessful. It is reputedly more effective to relax or try to move just the eyes or a single finger or toe. Descriptions of sleep paralysis are given in many of the references already cited and in Hufford's (1982) classic work on the "Old Hag." I and a colleague are building up a case collection and have reported our preliminary findings (Blackmore and Rose 1996).

Sleep paralysis is thought to underlie common myths such as witch or hag riding in England (Davis 1996–1997), the Old Hag of Newfoundland (Hufford 1982), Kanashibari in Japan (Fukuda 1993), Kokma in St. Lucia (Dahlitz and Parkes 1993), and the Popobawa in Zanzibar (Nickell 1995), among others. Perhaps alien abduction is our modern sleep paralysis myth.

Spanos et al. (1993) have pointed out the similarities between abductions and sleep paralysis. The majority of the abduction experiences they studied occurred at night, and almost 60 percent of the "intense" reports were sleep related. Of the intense experiences, nearly a quarter involved symptoms similar to sleep paralysis.

Cox (1995) divided his twelve abductees into six daytime and six nighttime abductions and, even with such small groups, found that the nighttime abductees reported significantly more frequent sleep paralysis than either of the control groups.

I suggest that the best explanation for many abduction experiences is that they are elaborations of the experience of sleep paralysis.

Imagine the following scenario: A woman wakes in the night with a strong sense that someone or something is in the room. She tries to move but finds she is completely paralyzed except for her eyes. She sees strange lights, hears a buzzing or humming sound, and feels a vibration in the bed. If she knows about sleep paralysis, she will recognize it instantly, but most people do not. So what is she going to think? I suggest that, if she has watched TV programs about abductions or read about them, she may begin to think of aliens. And in this borderline sleep state, the imagined alien will seem extremely real. This alone may be enough to create the conviction of having been abducted. Hypnosis could make the memories of this real experience (but not real abduction) completely convincing.

The Roper Poll

The claim that 3.7 million Americans have been abducted was based on a Roper Poll conducted between July and September 1991 and published in 1992. The authors were Budd Hopkins, a painter and sculptor; David Jacobs, a historian; and Ron Westrum, a sociologist (Hopkins, Jacobs, and Westrum 1992). In its introduction John Mack, professor of psychiatry at Harvard Medical School, claimed that hundreds of thousands of American men, women, and children may have experienced UFO abductions and that many of them suffered from distress when mental health professionals tried to fit their experiences into familiar psychiatric categories. Clinicians, he said, should learn "to recognize the most common symptoms and indications in the patient or client's history that they are dealing with an abduction case" (8). These indications included seeing lights, waking up paralyzed with a sense of presence, and experiences of flying and missing time. The report was published privately and mailed to nearly one hundred thousand psychiatrists, psychologists, and other mental health professionals encouraging them to "be open to the possibility that something exists or is happening to their clients which, in our traditional Western framework, cannot or should not be" (8).

The Roper Organization provides a service for other questions to be tacked on to their own regular polls. In this case, 5,947 adults (a representative sample) were given a card listing eleven experiences and were asked to say whether each had happened to them more than twice, once or twice, or never. The experiences (and percentage of respondents reporting having had the experience at least once) included: seeing a ghost (11 percent), seeing and dreaming about UFOs (7 percent and 5 percent), and leaving the body (14 percent). Most important were the five "indicator experiences": 1) "Waking up paralyzed with a sense of a strange person or presence or something else in the room" (18 percent); 2) "Feeling that you were actually flying through the air although you didn't know why or how" (10 percent); 3) "Experiencing a period of time of an hour or more, in which you were apparently lost, but you could not remember why, or where you had been" (13 percent); 4) "Seeing unusual lights or balls of light in a room without knowing what was causing them, or where they came from" (8 percent); and 5) "Finding puzzling scars on your body and neither you nor anyone else remembering how you received them or where you got them" (8 percent).

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The authors decided that "when a respondent answers 'yes' to at least four of these five indicator questions, there is a strong possibility that individual is a UFO abductee." The only justification given is that Hopkins and Jacobs worked with nearly five hundred abductees over a period of seventeen years. They noticed that many of their abductees reported

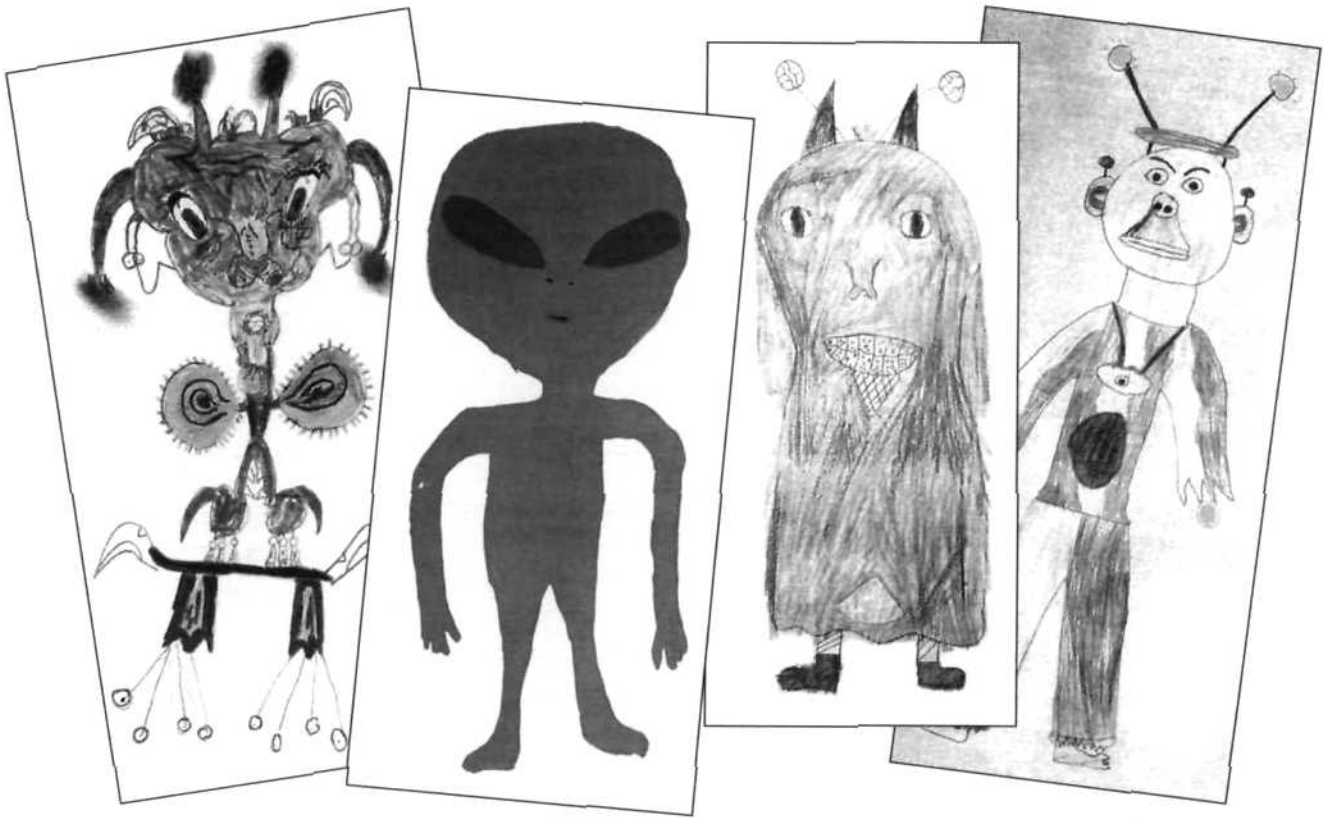

Figure 1. Examples of a "gray" and several other imagined aliens, drawn by children aged 8 to 13.

these experiences and jumped to the conclusion that people who have four or more of the experiences are likely to be abductees.

From there, the stunning conclusion of the Roper Poll was reached. Out of the 5,947 people interviewed, 119 (or 2 percent) had four or five of the indicators. Since the population represented by the sample was 185 million, the total number was 3.7 million—hence the conclusion that nearly four million Americans have been abducted by aliens.

Why did they not simply ask a question like, "Have you ever been abducted by aliens?"? They argue that this would not reveal the true extent of abduction experiences since many people only remember them after therapy or hypnosis. If abductions really occur, this argument may be valid. However, the strategy used in the Roper Poll does not solve the problem.

With some exceptions,[1] many scientists have chosen to ignore the poll because it is so obviously flawed. However, because its major claim has received such wide publicity, I decided a little further investigation was worthwhile.

Real Abductions or Sleep Paralysis?

The real issue raised by the Roper Poll is whether the 119 people who reported the indicator experiences had actually been abducted by aliens.

Since the sampling technique appears to be sound and the sample large, we can have confidence in the estimate of 2 percent claiming the experiences. The question is, Have these people really been abducted? The alternative is that they simply have had a number of interesting psychological experiences, the most obviously relevant being sleep paralysis. In this case, the main claim of the Roper Poll must be rejected. How do we find out?

I reasoned that people who have been abducted (whether they consciously recall it or not) should have a better knowledge of the appearance and behavior of aliens than people who have not. This leads to two simple hypotheses.

The Roper Poll assumes that people who have had the indicator experiences have probably been abducted. If this assumption is correct, people who report the indicator experiences should have a better knowledge of what aliens are supposed to look like and what happens during an abduction than people who do not report indicator experiences. If the assumption is not correct, then their knowledge should be no greater than anyone else's—indeed, knowledge of aliens should relate more closely to reading and television-watching habits than to having the indicator experiences if abductions do not really occur.

I decided to test this using both adults and children here in Bristol. It might be argued that genuine abductees wouldn't be able to remember the relevant details so I needed to use a situation that would encourage recall. I decided to relax the subjects and tell them an abduction story, and then ask them to fill in missing details and draw the aliens they had seen in their imagination.

Method

Subjects were 126 school children aged 8 to 13 and 224 first-year undergraduates aged 18 and over. The children came from two schools in Bristol. They were tested in their classrooms in groups of 22 to 28. The first group of 22 children had a slightly different questionnaire from the other groups and, is therefore, excluded from some of the analyses. The adults were psychology and physiotherapy students at the University of the West of England tested in three large groups. The procedure for the children is described below. The procedure was slightly simplified and the story slightly modified for the adults.

I first spent about half an hour talking to the children about psychology and research so that they got used to me. I then asked them to relax—as much as they could in the classroom. Many laid their heads on the desks, some even lay down on the floor. I asked them to imagine they were in bed and being read a bedtime story. I suggested they try to visualize all the details of the story in their minds while I read it to them. I then read, slowly and clearly, a story called "Jackie and the Aliens," in which a girl is visited in bed at night by a strange alien who takes her into a spacecraft, examines her on a table, and brings her back unharmed to bed. The story includes such features as traveling down a corridor into a room, being laid on a table, seeing alien writing, and catching a glimpse of jars on shelves. However, precise details are not given.

At the end of the story, I asked the children to "wake up" slowly and to try to remember as much as they could of the details of the story. I then handed out the questionnaires. Each questionnaire contained five multiple-choice questions about the alien, the room, and table; and the children were asked to describe what was in the jars and to draw the alien writing. There were also six questions based on those in the Roper Poll: Have you ever seen a UFO? Have you ever seen a ghost ? Have you ever felt as though you left your body and could fly around without it (an out-of-body experience, or OBE)? Have you ever seen unusual lights or balls of light in a room without knowing what was causing them, or where they came from? Have you ever woken up paralyzed, that is, with the feeling that you could not move? And, Have you ever woken up with the sense that there was a strange person or presence or something else in the room? (Note that in the Roper Poll, the question about paralysis was compounded with the question of the sense of presence. Here, two separate questions were asked. Note also that the last four of these questions were based on the *indicator* questions from the Roper Poll.) The questions were slightly altered to make them suitable for young children, and I did not ask about scars or missing time. A question about false awakenings (dreaming you have woken up) was also included, and two questions about television-watching habits.

Finally, all groups except one of the adult groups were asked to draw pictures of the alien they had imagined in the story.

Experience	Adults	Kids
Ghosts	14%	33%
OBEs	35%	33%
UFOs	8%	28%
False Awakenings	83%	57%
Sleep Paralysis	46%	34%
Presence	68%	56%
Lights	17%	28%

Table 1. Results of two surveys, with percentage of people answering "Yes" for having had the experience indicated. See text for full wording of questions.

Results

Large numbers of both adults and children reported having had most of the experiences. The percentages are shown in Table 1.

For each person, an "alien score" from 0 to 6 was given for the number of "correct" answers to the questions about the alien (that is, answers that conformed to the popular stereotype), and another score for the number of Roper Poll indicator experiences reported (0–4).

For the children, the mean alien score was 0.95, and the mean number of experiences 1.51. There was no correlation between the two measures ($r_s = -0.03$, $n = 101$, $p = 0.78$). The drawings of aliens were roughly categorized by an independent judge into "grays" and "others" (for almost all drawings the category is obvious; see Figure 1). Twelve (12 percent) of the children drew grays and 87 did not. Not surprisingly, those who drew a gray also achieved higher alien scores ($t = 3.87$, 97 df, $p < 0.0001$), but they did not report more of the experiences ($t = 0.66$, 95 df, $p = 0.51$).

Those children who drew grays did not report watching more television. Nor was there a correlation between the amount of television watched and the alien score ($r_s = 0.002$, $n = 101$, $p = 0.98$). Oddly, there was a small positive correlation between the amount of television watched and the number of experiences reported ($r_s = 0.25$, $n = 101$, $p = 0.01$).

For the adults, mean alien score was 1.23 and mean number of experiences 1.64. Again, there was no correlation

between the two measures (r_s = 0.07, n = 213, p = 0.29). Seventeen of the adults drew grays, and 103 did not. Again those who drew a gray achieved higher alien scores (t = 6.11, 118 df, $p < 0.0001$) but did not report more experiences (t = 0.14, 115 df, p = 0.89).

Among the adults, those who drew grays *were* those who watched more television (U = 534, n = 100, 17, $p < 0.01$), and the amount of television watched correlated positively with the alien score (r_s = 0.20, n = 217, p = 0.003).

Discussion

These results provide no evidence that people who reported more of the indicator experiences had a better idea of what an alien should look like or what should happen during an abduction. If real gray aliens are abducting people from Earth, and the Roper Poll is correct in associating the indicator experiences with abduction, then we should expect such a relationship. Its absence in a relatively large sample casts doubt on these premises.

Among the adults (though not the children), there was a correlation between the amount of television they watched and their knowledge about aliens and abductions. This suggests that the popular stereotype is obtained more from television programs than from having been abducted by real aliens.

Our sample certainly included enough people who reported the indicator experiences. Although not all the indicator experiences were included, for the four questions that were used, the incidence was actually higher than that found by the Roper Poll. Presumably, therefore, many of my subjects would have been classified by Hopkins, Jacobs, and Westrum as having been abducted. The results suggest this conclusion would be quite unjustified.

These findings do not and cannot prove that no real abductions are occurring on this planet. What they do show is that knowledge of the appearance and behavior of abducting aliens depends more on how much television a person watches than on how many "indicator experiences" he or she has had. I conclude that the claim of the Roper Poll, that 3.7 million Americans have probably been abducted, is false.

Acknowledgment

I would like to thank the Perrott-Warrick Fund for financial assistance and Nick Rose for help with the analysis.

Note

1. For three earlier articles in the SKEPTICAL INQUIRER evaluating and strongly critiquing the interpretations of the Roper Poll, see Lloyd Stires, "3.7 Million Americans Kidnapped by Aliens?" 17 (2), Winter 1993; Philip J. Klass, "Additional Comments about the 'Unusual Personal Experiences Survey'," 17 (2), Winter 1993; and Robyn M. Dawes and Matthew Mulford, "Diagnoses of Alien Kidnappings That Result from Conjunction Effects in Memory," 18 (1), Fall 1993. All are reprinted in Kendrick Frazier, Barry Karr, and Joe Nickell, eds., *The UFO Invasion*, Prometheus Books, 1997.

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