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TARGET ARTICLE

Toward an Explanation of the UFO Abduction Phenomenon: Hypnotic Elaboration, Extraterrestrial Sadomasochism, and Spurious Memories

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Autobiographical memories are often suspect. For example, a surprisingly large number of people report having been abducted by extraterrestrials. We offer a prototype of the abduction experience and an assessment of the frequency of such reports. These accounts are hard to dismiss on the basis of mendacity or insanity, but there are ample reasons to doubt their literal accuracy. We offer a cognitive-motivational explanation for how spurious memories of unidentified flying object (UFO) abductions can be created and maintained. The motivational roots lie in the desire to escape from ordinary self-awareness, and this explanation is supported by parallels between UFO abduction accounts and masochistic fantasies. The cognitive bases involve the integration and elaboration of hallucinations, general knowledge, and contextual cues into full-blown accounts, usually with the aid of hypnosis. Due to the pitfalls of hypnosis, people develop a high degree of confidence in the veridicality of spurious UFO abduction memories.

Much of what we know about other people is based on the stories they tell us about themselves. Unfortunately, sometimes what they tell us is not true. Some such stories are outright fabrications. Other autobiographical memories are simply difficult to believe, although the storyteller might be convinced they are real. According to one very large set of first-person accounts, our planet is frequently visited by aliens from outer space. At least several hundred (and more likely several thousand) Americans are said to be abducted every day by these aliens, who take the hapless individuals into their spaceships, perform painful and sexually tinged medical experiments on them, try with mixed success to erase their memories of the incident, and then return them to Earth in the approximate vicinity of the site from which they were abducted. Needless to say, many people are skeptical that these events are actually occurring, but this skepticism is quite often accompanied by a sincere desire to understand what could possibly lead someone to construct and accept a false memory of this kind.

Psychologists have been slow to devote their thoughts and research efforts to these phenomena. One reason might be a kind of defensive skepticism. According to evidence reviewed by Bem and Honorton (1994), psychologists are significantly less willing than other scientists (and even other social scientists) to take paranormal phenomena seriously. Coon (1992) traced this state of affairs back to the turn of the century, when many psychologists believed that the survival of the discipline as a respectable science hinged on their distancing themselves from then-fashionable topics such as telepathy, clairvoyance, and communication with the dead. Yet, if these recent startling accounts are to be believed, they suggest a large and increasing scope of intervention by extraterrestrial aliens into human affairs, which might soon amount to one of the most spectacular and important developments in human history. And, if these accounts are not to be believed, then they constitute a widespread and rising form of fascinating delusion that calls for explanation on the basis of accepted cognitive and motivational principles.

In either case, people who claim to have experienced abduction by unidentified flying objects (UFOs) might require expert intervention to help them recover. A handful of mental health professionals are therefore now arguing that psychotherapists should be educated about the UFO abduction phenomenon so that they will recognize the symptoms and be able to help the victims (e.g., Clamar, 1988; Mack, 1992b; Sprinkle, 1988; see also Huyghe, 1993). Abductees, they argue, are suffering from posttraumatic stress disorder (or a variant of that condition, "experienced anomalous trauma"—see J. P. Wilson, 1990), and so they should get the same treatment as anyone else meeting the relevant diagnostic criteria. In other words, their problems should be handled like those of victims of other brutal experiences, such as warfare, rape, or physical abuse. A more radical approach is taken by those who argue that the problems of abductees are not just similar to other problems of adjustment but that, quite often, repressed memories of UFO abductions might be causing many of those other problems. As described by a skeptical Klass (1988a), this "skeleton key theory" suggests that recognizing the reality of UFO abduction has the potential to unlock the causes of many kinds of psychological abnormality, such as unexplained fears, phobias, and panic disorders. Proponents of this theory also caution that the vast majority of psychologists and psychiatrists are not equipped to help abductees, so people who feel that they have had such experiences should avoid those professionals. Instead, victims would be better off seeking help from experts familiar with the phenomenon. Some of these experts can even provide advice on techniques one can use to resist becoming an abductee (Druffel, 1993).

We do not mean to mock the efforts of those who seek to provide comfort to people who are unhappy and confused due to what they believe is a UFO abduction. But we do believe that these people are better served by a more complete understanding of the sources and psychological significance of their disturbing memories. In this article, we attempt to contribute to that understanding. Randles and Warrington (1985) characterized UFO abduction reports as "a remarkable phenomenon which one feels must have a psychological explanation" and declared that, given how its "eerie consistency comes through in case after case ... it is difficult to justify its continued neglect by social scientists" (pp. 153–154). The purpose of this article is to offer a possible explanation of the motivational and cognitive processes that might cause people to believe that they have been abducted by aliens. It is necessary to admit at the outset that we do not believe in the literal reality of these experiences, and so our explanatory efforts are devoted to explaining them as fantasies and false memories. We hope thus to also make a more general contribution to the ongoing debate on both the fallibility of autobiographical memory (e.g., Halverson, 1988; Neisser & Harsch, 1992) and the processes involved in distorted reconstructions of the past (e.g., Baumeister & Newman, 1994; E. F. Loftus, 1993; Ross, 1989).

An observation made by Jacobs (1992), another UFO investigator sincerely worried about the effects of extraterrestrial intrusions on abductees, foreshadows our main argument. Jacobs noted an odd characteristic of these people. Due to the traumatic nature of their experiences, he lamented, their sexuality has been affected; in particular, many have confessed to "fantasies involving masochism and bondage" (p. 253). We concur with Jacobs's hypothesis of a link between masochistic fantasies and UFO abduction accounts. Rather than suggesting that the fantasies are a result of an actual abduction experience, however, we believe that both spring from a common source—the need to escape the self. Both masochistic and UFO abduction fantasies might derive from the excessive demands and stresses associated with the modern construction of selfhood (Baumeister, 1991a; Cushman, 1990). We present evidence supporting the hypothesis that UFO abduction accounts express the goal of escaping from awareness of the self's most burdensome aspects, such as its needs for esteem and control. In addition, we review in detail the many ways in which UFO abduction accounts resemble another set of accounts hypothesized to express the desire to escape the self—the fantasies of sexual masochists. As perceptively put by David Langford, a science-fiction writer,

> Why should people fantasize such unpleasant experiences as some of those reported? Well, I am sure that being raped by the alien equivalent of a telephoto lens would be a jolly nasty experience, but if you don't actually have to undergo it but only "remember" undergoing it, suddenly it can be seen in a new light as a partly masochistic—or not so masochistic—fantasy. (Hough & Randles, 1991, pp. 41–42)

Unlike masochistic fantasies, however, accounts of UFO abductions are typically believed (by the individuals involved) to have really happened. To explain this, we invoke what is known about the fabrication of spurious memories, especially under hypnosis.

The UFO Abduction Experience: An Overview

Although no two UFO abduction reports are exactly alike, a large number are structured in a similar enough way that it is possible to construct a general or typical version of the experience. What follows is a brief synopsis of the prototypical abduction story, derived primarily from the detailed abduction reports presented

by Bullard (1987b), Fiore (1989), Hopkins (1987), Jacobs (1992), Lorenzon and Lorenzon (1977), and Steiger (1988). (Note that we use the terms *story, narrative,* and *account* interchangeably, as in Baumeister & Newman, 1994).

It is important to note that abduction memories rarely emerge unaided. Those who learn that they might be abductees commonly seek out help for any of a number of reasons—vague anxieties, specific phobias, bad dreams, fragmentary and disturbing memories, or what seems like an inexplicable episode of "missing time" (Hopkins, 1981). It is usually only after consultation with a psychotherapist or some sort of UFO investigator that these people can articulate a specific memory of being abducted by aliens.

UFO abduction accounts often start with the sight of a flying saucer or spaceship, although abductees sometimes remember only being aware of a bright light. Such details are frequently absent, however, and it is quite common for the abduction episode to begin with the appearance of strange beings, who are presumed to be extraterrestrial aliens. Typically, the victims are paralyzed or otherwise immobilized at this point (often in their cars or homes) and then taken onto the aliens' craft. Occasionally, people remember being carried on board or otherwise transported there, but more commonly abductees cannot recall how they ended up inside the UFO.

Once on board the UFO, abductees typically find themselves in a strange, brightly lighted room, often filled with complicated machinery. What appears to be a physical examination of some sort then commences. Often, abductees are fastened to and stretched out on a table or bed. Sometimes they are undressed, but almost always they are subjected to painful procedures of an ostensibly medical nature. Cuts are made, blood is often drawn, and various orifices of the body are probed and even violated. Needles and physical restraints might be involved. Genitals receive special attention, and reports of sexual activities between the aliens and their victims have become increasingly common in recent years. The aliens who perform the examinations are grim and businesslike, and others stand around and watch. The examiners and other occupants of the craft almost never look quite like normal people, but they are generally humanoid in appearance.[1] Throughout the experience, abductees feel powerless and externally controlled.

At the end of the examination, victims' memories for the entire episode are erased, or the victims are otherwise programmed to keep their experiences a secret. Sometimes, abductees are explicitly asked in a postexamination conference with the aliens to refrain from telling anyone what happened. This communication more often than not is telepathic in nature. Finally, some accounts describe tours of the spaceship, discussions of ecological and geopolitical crises on earth, and even journeys to other worlds. These parts of the story are far from universal, however, and the exact details are very inconsistent across cases (e.g., a wide variety of "home planets"; Rimmer, 1984).

One of the first experiences of this kind was claimed by Betty and Barney Hill (Fuller, 1966); their story was later made into a television movie aired in 1975. While driving through New Hampshire, the Hills reported, they were stopped by a UFO. The two were then forced to board the aliens' ship, where they were subjected to painful, examination-like procedures like the ones already described. Although subsequent research has turned up earlier cases with some similarities to their alleged experiences (see Bullard, 1987a), the Hills' story is essentially the "Rosetta stone" of UFO abduction lore. When it first became public, the impression among most observers was that they had never heard anything quite like it before (Hough & Randles, 1991; Klass, 1988b).

The Hills are no longer alone. To emphasize this point and to better convey the nature of the UFO abduction experience, we present two brief examples from Bullard's (1987b) catalogue of abduction cases:

> Under hypnosis, he remembered that two lights descended from the sky and landed nearby. He felt a foreboding that something would happen if he stopped, but his car suddenly veered off the road as if pulled by a magnet, and when he got out he saw a light all over the area. A sound like leather rubbing together attracted his attention to four or five beings who apparently came over a fence along the roadside and approached him, at which time he was unable to move. ... A clamplike device seized him by the shoulders, causing him pain in the back. The beings turned him towards the craft. ... He entered a white room, rounded and domed and seemingly without an angle, and glowing with a misty luminosity. Though he did not remember

[1]Remarkable similarities in the appearance of the aliens have also frequently been emphasized (e.g., Hopkins, 1987; Jacobs, 1992). Most frequently encountered are said to be the "grays," familiar to readers of Whitley Strieber's (1987) *Communion: A True Story.* The complete text of the abductee story beginning on this page ("Under hypnosis, ...") also contains a classic description of this type: "The beings were hairless humanoids with heads like inverted teardrops, large black walnut-shaped eyes, small nose, slit mouth and no ears. The skin was whitish and putty-like, the height below his shoulder. The beings were extraordinarily skinny, with no muscular definition and an apparent weight of 50 lbs." However, readers of the UFO literature will encounter a bewildering variety of other beings, including some with "golden, strawlike hair," others that look like "a combination of earth animals," "creatures with wrinkled skin, crab-claw hands, and pointed ears," and a woman with "long red hair and violet eyes" (all from Steiger, 1988, pp. 59, 62, 71, 175, respectively). Mack (1994) further noted that "abductees overseas seem to have contact with a greater variety of entities than Americans" (p. 12). Cosculluela (1993) argued that such differences in appearance are often glossed over by those seeking to emphasize the commonalties between different stories.

undressing, he next found himself seated on a table wearing only a diaper-like cloth. A large and intricate device like a planetarium projector came down from the ceiling and ran a needle-like device along his back. Two beings seemed in control of the examination while others waited in the room. ... He assumed various positions on his stomach, back, and side as the beings examined him all over. After the beings applied a clamplike device to his hip region and poked his stomach with a rod, they flexed his legs with another rodlike device. ... He felt that they did not care that they hurt him. (pp. 39–40)

When hypnotized she remembered a light and a voice calling her out of bed. She obeyed against her will and went to a muddy field as a saucer-shaped craft neared the ground. Through the windows she saw beings and a piercing sound prevented her from moving. A warm beam of light then pulled her inside the craft. She found herself inside a white hospital room. Two small beings with tiny mouths and compelling eyes, dressed as if in motorcycle jackets, told her without speaking to undress and lie down on a table. She resisted but eventually gave in. ... At last the doctor entered and gave her an injection (?). He then inserted a needle into her navel. The beings only admitted to being from far away and said she would not care who they were. One being wore a scarf and seemed to be the leader; he remained in the room after the others departed, undressed himself and rubbed her with a jelly. It warmed her, whereas the leader's touch was cold, his skin grey-white. The being, who had human sexual organs, then raped her. (p. 69).

How Many Abductees?

It seems safe to say that most people in this country now have some familiarity with the UFO abduction phenomenon. Eberhart (1986) listed 30 books on the topic, but the more successful ones have only appeared since he compiled his comprehensive bibliography of the UFO literature—that is, those by Hopkins (1987), Mack (1994), and Strieber (1987). Whitley Strieber's (1987) *Communion: A True Story,* a prototypical abduction story, made an especially significant impact on the public. It was the third–best-selling paperback nonfiction (sic?) book in 1988 (McDowell, 1989) and was made into a movie the following year (a major release by a large studio).

The number of people coming forward to report that they have fallen prey to the aliens' deeds seems to have grown in proportion to the number of books, movies, and sensationalistic television programs that have been devoted to the topic. Early commentators' claims about the extent of the problem were quite modest. Greenberg, writing in 1979, noted "some 200 reported cases" (p. 106). Rimmer (1984), on the other hand, claimed that about 500 episodes had been reported between 1970 and 1980, and Hopkins (1981) provided a similar estimate. Subsequent publicity, and especially the publication of *Communion,* triggered a quantum leap in the apparent magnitude of the abduction phenomenon. According to Conroy (1989), shortly after *Communion* came out, Strieber announced that he had received 700 letters from people "this has happened to" (p. 139). By 1988, the figure was said to be 5,000, with about 40 to 50 more letters arriving each day ("Q & A: Whitley Strieber," 1988). Even more recently, in an appearance on *Larry King Live,* Strieber (1993) claimed to have received a total of 55,000 letters from people reporting such experiences, with approximately 200 a week still being sent to him.

Although these many tens of thousands of UFO abduction experiences might seem a remarkably large number, many students of these phenomena believe that they might be merely the tip of the iceberg. Many people would presumably be embarrassed or afraid to admit to having been subjected to such an ordeal (see Westrum, 1979), and so the actual number of people who believe they have been abducted might be much higher—not to mention the aliens' putative efforts to erase memories or enjoin their victims to secrecy. For example, based on a confidential survey of students at Temple University, Jacobs (1992) estimated that 15 million people in the United States might have had abduction experiences.

The most ambitious effort to specify the number of abductees in the United States was a survey conducted by the Roper organization and reported by Hopkins, Jacobs, and Westrum (1992) in a booklet that was recently mailed to many members of the American Psychological Association. Hopkins et al. claimed that directly asking people about such experiences is pointless, because most people will either not remember them directly or will not admit to having had them for fear of ridicule. Therefore, the survey questions focused on five experiences said to be strongly associated to the phenomenon. Respondents (5,947 randomly sampled American adults) were asked whether they recalled ever "waking up paralyzed with a sense of a strange person or presence or something else in the room," "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," "feeling that you were actually flying through the air although you didn't know how or why," "seeing unusual lights or balls of light in a room without knowing what was causing them or where they came from," or "finding puzzling scars on your body and neither you nor anyone else remembering how you received them or where you got them." Hopkins et al. used the working assumption that people who reported having at least four of these five experiences—2% of all those surveyed—were probably abductees. Based on this indirect method, Hopkins et al. estimated that 3.7 million Americans have been abducted by UFOs.

Critiques of this survey and of its conclusions have quickly appeared. Stires (1993) pointed out that no adequate evidence had been presented for the validity of the questions and none at all for the "four-of-five" rule (see also methodological and psychometric critiques by Dawes & Mulford, 1993; Goertzel, 1994; Hall, Rodeghier, & D. A. Johnson, 1992). Klass (1993) calculated that if Hopkins et al.'s (1992) conclusions are accurate, then, since the fall of 1961 (when the Betty and Barney Hill case ushered in the abduction era), an average of 340 Americans have been abducted every day. This high frequency seems especially implausible in light of the fact that no physical evidence exists for any UFO abduction. Baker (1992a), meanwhile, argued that the survey probably does identify a special group of Americans, but not abductees. Baker suggested that they are more likely to be people with various sleep disorders (to be discussed).

Although the figures reported by Hopkins et al. (1992) strike many as incredible, the fact remains that thousands of people now count themselves among the legion of abductees. Gordon (1991) reported that 190 of them recently trekked to Wyoming to attend a conference held exclusively for abductees.

Explaining UFO Abduction Reports: A Review of Some Parsimonious Explanations

Perhaps the most straightforward account for UFO abductions would be that they actually occur. According to this account, alien beings do in fact visit our planet and snatch unfortunate Earthlings at will, but, because the aliens possess a technology so far beyond ours, they always manage to evade detection. For many reasons, we find the "extraterrestrial hypothesis" difficult to accept. Not least among them is the illogical, irrational, and internally contradictory nature of many UFO abduction stories. For example, even if extraterrestrials did land on Earth, it is unlikely that they would be able to float people through solid walls—and yet events of that kind are commonly reported by abductees. Also characteristic are jarring discontinuities in the stories. As already noted, few abductees remember entering the aliens' craft (Jacobs, 1992). Typically, the aliens appear, and then one is suddenly inside the UFO. Randles (1988) called this kind of strangeness the "Oz factor." This is an apt label, for only in the files of an abduction investigator would one find a story like the following: "Two beings stood guard while the leader and two others examined the witness, removing his shirt and trousers and placing a skullcap on his head. He then heard a voice from inside screaming, 'I am Jimmy Hoffa'" (Bullard, 1987b, p. 63).

One kind of abduction story that would be seemingly impossible to accept would be an urban abduction. Clearly, if people were being snatched in the middle of cities, millions of people would see what was going on, and there would by now be an established consensual validation that extraterrestrials visit our planet to abduct and molest American citizens. Apparently, though, many abductees fail to see any incongruity in reporting that they were abducted from crowded urban settings without attracting any notice. One speaker on the topic of UFOs recently stated that, in New York City "there have even been cases where people have been taken right out of their apartments by a beam of light. ... Why it goes unnoticed, I don't know" ("Mysteries," 1991, p. 31).

On strictly logical grounds, then, UFO abduction memories are difficult to accept. As with everyone else, though, our initial reaction to the stories people tell—including bizarre ones such as these—is to assume that they reflect some real experience and to believe them (see Gilbert, 1991). At present, however, there is no compelling evidence that extraterrestrial aliens have actually abducted American citizens (for thorough, if now slightly outdated reviews, see Klass, 1988b; Rimmer, 1984). For example, an important source of support for the extraterrestrial hypothesis would be the testimony of third-party witnesses to UFO abductions. Jacobs (1992) claimed that a person can be abducted even when he or she is part of a small group engaged in some mutual activity. In such cases, the abductors are said to be able to "switch off" or somehow distract the nontargeted people. As a result, unfortunately, only one person, the alleged abductee, can provide testimony about the incident. In other cases, more than one person has been supposedly abducted at once (see Bullard, 1987b). But, as Baker (1992b) noted, such "multiple" abduction reports fall short of being the kind of independent corroborating evidence so eagerly sought by those believing in the objective reality of UFO abductions. Almost without exception, the alleged victims have a close relationship of some sort with each other and have had a chance to communicate and influence each other before any investigation takes place. In addition, they might be motivated to back each other up so that neither can be accused of being dishonest or insane.

In sum, uninvolved witnesses to alien abductions are lacking. Even Jacobs (1992), a prominent advocate of the literal reality of these events, conceded that "no abductions have surfaced that took place in the middle of a very large group of people, in full view at a public event" (p. 50). Furthermore, in those few cases in which witnesses were physically present during the putative abduction, the witnesses' accounts have tended to contradict or undermine the account of UFO abduction. Randles (1988) described a case in which an alleged

abductee was clearly seen lying on the ground while the abduction was supposed to have been taking place. Basterfield (1992b) reported that another woman claimed that an abduction occurred at a time when two other people were standing next to her and saw nothing of the kind happening.

Physical evidence of some kind might also provide convincing support for the extraterrestrial hypothesis. No photographs or films of an abduction exist, despite the concerted efforts of some abductees to document their experiences on videotape (see Jacobs, 1992, pp. 259–260). And, although others have assiduously searched for evidence of alien implants—the "smoking gun"—physical examinations of abductees have never revealed any (Basterfield, 1992a). Nor have other artifacts turned up. The results of investigations seeking to confirm the reality of UFO abductions thus compel us to agree with Hough and Randles (1991), who suggested that, rather than representing a hostile advance force from some other galaxy, "the spaceships emerge from our minds" and that "the 'aliens' haunt the corridors of inner space in our heads" (p. 189). It seems most parsimonious to reject the literal reality of abductions.

Others with a similar view have proposed a rather simple psychological explanation for UFO abduction reports—mendacity. Baker (1992b) suggested that many (if not most) such tales are simply lies told by people seeking attention and notoriety. Undoubtedly, some reports are in fact conscious fabrications (for an exposé of one such incident, see Klass, 1988b, pp. 172–175). On the other hand, those actively involved with abductees consistently claim that the majority of "victims" do not seek publicity and instead desperately seek to preserve their anonymity (e.g., Hopkins, 1987; Jacobs, 1992; for similar observations, see also Rimmer, 1984; Vallee, 1988). The majority go by pseudonyms when they permit their stories to be made public.[2] Most UFO abduction accounts cannot therefore be easily written off as attention-seeking lies.

Another parsimonious psychological explanation offered by Baker (1992b) is that many abductees might simply be insane and more generally incapable of distinguishing between reality and fantasy. Bartholomew, Basterfield, and Howard (1991) noted that people with UFO-related experiences of all kinds, abduction-related or otherwise, have typically been written off as mentally disturbed. Such labels, however, are usually applied simply on the basis of the bizarre nature of the stories told, not as the basis of any kind of formal psychological evaluation. In contrast, when Bartholomew et al. (1991) reviewed all of the biographical material available for 152 people who claimed contact with alien beings, they found that their subjects were "remarkably devoid of a history of mental illness" (p. 215). Others have directly examined abductees with standardized psychological instruments (e.g., the Minnesota Multiphasic Personality Inventory [MMPI]) and have found no evidence for psychotic disturbances (Bloecher, Clamar, & Hopkins, 1985; Mack, 1994; Parnell, 1988; Parnell & Sprinkle; 1990; Ring & Rosing, 1990). Ellis (1988) concluded: "We need to admit that sane, intelligent people may sincerely perceive, or come to believe, that they have been attacked or abducted by paranormal agents" (p. 269).

Explaining UFO Abduction Reports: Two Puzzles

Assuming that UFO abduction accounts are not literally true, not conscious fabrications, and not a reflection of obvious psychopathology, some more subtle explanation will be necessary to make sense of them. And, although cognitive and motivational determinants of psychological phenomena are notoriously difficult to disentangle (Sorrentino & Higgins, 1986), our explanation can roughly be divided into two components—the cognitive factors that lead to the development of false memories and the motivational factors that lead to the construction of a specific class of false memories, those involving UFO abductions.

To explain why people report UFO abductions, we begin by answering a more general question: Why would people claim to remember things that did not actually happen to them? Much research and theorizing have focused on the issue of how pseudomemories are formed, particularly on the role of hypnosis. We briefly review that literature. As we suggest, the emergence of spurious memories under hypnosis has been well documented and might provide one potent cognitive mechanism for the production of UFO abduction reports.

In addition to describing how and why people might construct false autobiographical memories in general, we try to shed light on the meaning of some of the more peculiar and shocking aspects of UFO abduction narratives in particular. To do so, we must consider motivational factors. We argue that the details of abduction stories can be understood quite readily if one assumes that what these accounts reflect is a desire to effectively escape awareness of the self.

Generating False Memories

Those who have heard testimony from abductees often find it difficult to believe that anyone could

[2]Of course, as Strieber's case makes clear, not all abductees avoid the limelight. In addition, Klass (1988b) reported that some of Hopkins's informants who demanded secrecy appeared shortly afterward on nationally broadcast television programs using their real names.

generate such detailed accounts if the accounts were not accurate reports of real experiences. And they might find it difficult to imagine how anyone could experience such an astonishing failure of "reality-monitoring" (M. K. Johnson, 1988; M. K. Johnson & Raye, 1981)—the process people use to decide whether the information they recall derives from an internal or external source (i.e., whether it is a memory of an actually perceived event or just something imagined or dreamt). Unfortunately, people are not particularly good at distinguishing between others' real and phony memories (Schooler, Gerhard, & E. F. Loftus, 1986), and they are not generally aware how easily false memories can be implanted and accepted—particularly when recall takes place under hypnosis.

The latter point is crucial because, although formal hypnotic procedures are not used to uncover every episode of UFO abduction, most of the currently available accounts are in fact products of the hypnotic state (Rimmer, 1984). Exact figures are impossible to come by, but of the 104 cases identified by Bullard (1989a) as "high quality," 71% were associated with hypnosis. Other estimates of the number of abduction memories discovered with the aid of hypnosis typically have hovered around 80% to 90% (e.g., Cooper, 1988; Maccabee, 1985). Similarly, all 13 people whose stories were presented in Mack's (1994) book had constructed their stories with the aid of hypnotic regressions. Any discussion of the UFO abduction phenomenon would thus be incomplete without careful consideration of hypnosis—the tool used to reveal the abduction stories.

The research we review on how pseudomemories might be formed is not uniquely relevant to UFO abduction reports. For example, people might also confabulate reports of physical and sexual abuse in early childhood (E. F. Loftus, 1993), involvement in satanic cults (Bottoms, Shaver, & Goodman, in press; Ofshe, 1992; Wright, 1994), or "past lives" (Spanos, 1987). The mechanisms we discuss here can play a role in the creation of all kinds of false memories, but the discussion is primarily focused on how they might engender UFO abduction reports.

Why Seek Out a Hypnotist?

As already noted here, abductees initially seek out counseling only because they believe "something strange" happened to them, and they typically are uncertain as to what that was. Often, this involves what seems like an episode of "missing time" (Hopkins, 1981). In these cases, a person feels that he or she cannot account for a significant chunk of time. As Baker (1992a) pointed out, however, not being able to remember what took place for a few hours in even the recent past is not at all unusual. This kind of experience is especially likely on long-distance drives; people often report suddenly being unaware of anything that transpired during long stretches of their trips. Not surprisingly, many alleged UFO abductions are said to have occurred during solitary drives at night (Bullard, 1987b; Rimmer, 1984).

Furthermore, Baker (1992a) argued that the "seed" for a UFO abduction memory—that is, the odd experience that leads a person to seek help from someone perceived to be a specialist in anomalous phenomena—quite often might be a hypnogogic or hypnopompic hallucination (see Hufford, 1982). These frightening experiences, occurring either just before people fall asleep (hypnogogic) or wake up (hypnopompic), are in no way indicative of severe psychopathology. Baker (1987) described the experience as follows:

> First, it always occurs before or after falling asleep. Second, one is paralyzed or has difficulty moving; or contrarily, one may float out of one's body and have an out-of-body experience. Third, the hallucination is often bizarre; i.e., one sees ghosts, aliens, monsters, and such. Fourth, after the hallucination is over the hallucinator typically goes back to sleep. And fifth, the hallucinator is unalterably convinced of the "reality" of the entire experience. (p. 157)

Certain sensory features, such as musty smells and shuffling sounds, are characteristic of hypnogogic and hypnopompic states (Ellis, 1988) and of UFO abduction memories. In addition, Ellis (1988) noted that these experiences of hypnogogic and hypnopompic states are so common that different cultures have specific names for them. In Newfoundland, for example, they are called the *Old Hag* in reference to a witch-like entity that is often hallucinated.

As Baker (1987) noted, many of Strieber's unusual and supposedly UFO-related experiences match so closely with those of hypnogogic and hypnopompic states that there can be no doubt as to what they were (see, especially, Strieber, 1988, pp. 82–84, 233). Less anecdotally, Spanos, Cross, Dickson, and DuBreuil (1993) found that "intense" UFO experiences of all kinds (i.e., those not just involving lights or shapes in the sky) more often than not occur while people fall asleep, dream, or wake up. In general, it seems highly plausible that a hypnogogic or hypnopompic hallucination is often the inexplicable experience that is later fleshed out into an abduction memory. This would account for Hopkins's (1987) description of a typical "bedroom encounter" with aliens, which "involves the appearance of a strange figure (or two or three) standing near the bed on which the invariably frightened subject lies physically paralyzed" (p. 314).

False Abduction Memories and Hypnosis

Needless to say, people baffled and frightened by missing time, disturbing dreams, or hypnogogic or

hypnopompic hallucinations might end up getting professional help from any number of sources. However, people who are already interested in UFOs seem especially likely to end up with a therapist having similar beliefs and inclinations (or even with a UFO investigator of some sort). For example, psychotherapist Fiore (1989) presented 13 abduction cases, all of whom recalled their experiences while in a hypnotic state. Of the 13, 4 (pp. 35, 68, 99, 301) had read or were familiar with Strieber's *Communion,* 1 (p. 146) had attended a seminar on UFOs, and 5 more (pp. 52, 133, 174, 230, 277) seem to have had a general long-standing interest in the subject. Thus, at least three fourths of Fiore's particular sample had clearly exhibited some interest in UFOs before their own putative abductions.

This particular combination—both a therapist and a patient with extensive knowledge of UFOs and/or beliefs in the reality of UFOs—is particularly volatile, as becomes clear as we review some of the epistemological pitfalls of hypnosis. In general, the belief that hypnosis is an effective, reliable tool for enhancing valid recall is currently a minority view, and much evidence argues against it (M. T. Orne, 1979; Sheehan, 1988b). Although hypnosis increases people's sheer number of recollections, this is true for both accurate and inaccurate memories (Dywan & Bowers, 1983), and hypnosis is as likely to increase false statements as true statements. In part, this is due to the fact that, when under pressure to recall events under hypnosis, people will try to fill in memory gaps in any way possible—including with fantasies (M. T. Orne, 1979). Recall under hypnosis is a reconstructive process subject to numerous biases, including those deriving from contextual factors (e.g., loaded questions) and those stemming from the subject's own general knowledge and beliefs about whatever he or she is attempting to recollect (M. T. Orne, Whitehouse, Dinges, & E. C. Orne, 1988). In addition, the more highly hypnotizable a person is, the more likely he or she is to fill in memory gaps with fantasies when requested to recall past events (M. T. Orne, 1979).

Beliefs and expectations of the hypnotist. It is well established that hints or cues can affect hypnotic subjects and lead them to fulfill hypnotists' expectations (Spanos, 1986). For example, Spanos, Menary, Gabora, DuBreuil, and Dewhirst (1991) instructed their subjects to "regress beyond birth to a previous life" with the aid of hypnosis. Furthermore, subjects in different conditions were led to believe that the hypnotist had specific expectations about the characteristics of those past lives (e.g., that they would be people of the opposite sex or child abuse victims). Subjects incorporated these expectations into their ostensible memories of past lives significantly more often than did subjects who had been given neutral instructions. Similarly, when Hilgard (as described in Baker, 1987) suggested to a hypnotic subject that he had witnessed a bank robbery, this person not only recalled the incident but was able to identify a photograph of the man who committed the fictional crime. Ganaway (1989) went so far as to conclude:

> The formation of an entire belief system with its own set of supporting pseudomemories can be cued by a simple suggestion from the interviewer, and, if not extinguished, could potentially become part of the subject's permanent sense of narrative truth. (p. 209)

Pressure to generate specific memories can also be found in the UFO abduction literature. For example, when Fiore (1989) visited a well-known abduction specialist, complaining about a disturbing dream, the specialist prefaced a hypnotic induction as follows: "Dreams are very commonly the tip of the iceberg of a meeting with ETs [extraterrestrials]. ... Let's get started and we'll soon find out about yours" (pp. xvii–xviii). Also instructive is the following dialogue from a hypnotic session with an abductee.

> Dr. Fiore: Now I'm going to ask you a few questions at this point. You will remember everything because you want to remember. When you were being poked everywhere, did they do any kind of vaginal examination?
>
> Sandi: I don't think they did.
>
> Dr. Fiore: Now you're going to let yourself know if they put a needle in any part of your body, other than the rectum.
>
> Sandi: No. They were carrying needles around, big ones, and I was scared for a while they were going to put one in me, but they didn't. [*Body tenses.*]
>
> Dr. Fiore: Now just let yourself relax. At the count of three you're going to remember whether they did put one of those big needles in you. If they did, know that you're safe, and it's all over, isn't it. And if they didn't, you're going to remember that too, at the count of three. One ... two ... three.
>
> Sandi: They did. (Fiore, 1989, p. 26)

Hypnotic subjects' recall can be distorted without resorting to cues or instructions as blatantly explicit as in the example just presented. Subtle and even inadvertent cues can have the same effect (O'Connell, Shor, & M. T. Orne, 1970). In fact, the influence of a hypnotist or interrogator might be more powerful when it is less overt. Powell and Boer (1994), in their discussion of recovered memories of childhood sexual abuse, noted that obvious pressures to report specific scenes or images might sensitize people to the possibility that related material that comes to mind might not be self-generated or based on actual experience. Obvious external influences (e.g., leading questions) might serve as cues that also lead

abductees to discount the veridicality of their UFO-related memories. In general, it might be the very subtlety of the processes leading to the construction of false memories that results in attributing images and thoughts to actual experiences rather than contextual cues (for decision processes involved in determining the source of a memory, see Jacoby & Kelley, 1987; M. K. Johnson, Hashtroudi, & Lindsay, 1993).

Clearly, the evidence suggests that someone with firm beliefs about the reality of UFO abductions might well influence the nature of any putative hidden memories another person dredges up with the aid of hypnosis. In addition, research on the effects of hypnotist expectations might well explain the frequent observation that some of the specific details or features of abduction accounts appear to remain consistent among accounts obtained by the same investigator but vary among investigators (as noted by, among others, Klass, 1988b; Vallee, 1990).

Beliefs and expectations of the hypnotized subject. Subjects' own general knowledge and expectations might also help shape what they report while under hypnosis (M. T. Orne, 1979). Hypnotized subjects are prone to believing that an idea, image, or thought is based on personal experience even when it derives from some other source. Baker (1992b) called this phenomenon *cryptomnesia* (see also M. K. Johnson et al., 1993) and likened it to unintentional plagiarism.

Cryptomnesia is most obviously in evidence when people attempt "past-life regression" under hypnosis. Typically, people's "past lives" show remarkable parallels to books they have recently read (Baker, 1992b). Similarly, subjects being led to believe that they have encountered extraterrestrials might fill in their stories with details recalled from science-fiction books and movies to which they have been exposed. And, despite some vigorous protests to the contrary (see Hopkins, 1987; Jacobs, 1992), science-fiction precedents can indeed be found for many aspects of UFO abduction stories (Bullard, 1989b; Evans, 1991; Hough & Randles, 1991; Vallee, 1990).

Kottmeyer (1989) provided the most thorough and compelling discussion of the influence of science-fiction stories and movies on the content of UFO abduction accounts, particularly with regard to the appearance of the aliens and their ships. For example, Kottmeyer convincingly argued that many aspects of Betty Hill's abduction experience derived from the movie, *Invaders From Mars.* Some of the features of her husband Barney's story, on the other hand, seem to have had their roots in an episode of the television program, *The Outer Limits.* One complaint about analyses such as these (e.g., Randles, 1988) has been that the alleged influences on abduction stories that have been identified are almost always quite obscure. That they are quite difficult to dig up makes these critics suspicious; if people are just copying science fiction, why do they not mainly rely on the most well-known stories and films? As Kottmeyer argued, such arguments miss an important point: It is the very obscurity of these stories and films that allows them to seep into abduction accounts. For example, no one would take a person seriously who claimed he had been abducted by an alien with pointy ears who called himself Mr. Spock. Kottmeyer even described how a person at a UFO conference claiming a UFO experience was jeered by audience members who recognized similarities between his story and a "Coneheads" sketch on the television program, *Saturday Night Live.* Such stories are obviously never followed up on by investigators, and they never make their way into print. In fact, it is unlikely that anyone would ever report events with obvious similarities to events from hit movies or best-sellers. He or she would recognize the source of these spurious memories.

At this point, abduction tales receive enough media coverage and are so widely known that they themselves probably influence other people claiming to have been abducted. One psychotherapist (Cone, 1994) reported that "about 80 percent of the people who have come to me for help about abductions have read *Communion,* or seen a TV show about abductions" (p. 33). Klass (1988b) discussed the most notorious case—the Travis Walton abduction, immortalized in the movie, *Fire in the Sky* (Tormé, 1993). The events Walton described were said to have occurred a scant 2 weeks after the first airing of the television movie about the Hills' abduction story.

The influence of prior knowledge on memories constructed during hypnosis is especially problematic in the case of abductees. As already noted here, it is these people's interest in UFOs and related issues that often leads them to abduction investigators in the first place. Randles (1988) documented Strieber's interest in the subject of UFOs even before Strieber's alleged abduction experiences began, and Baker (1992b) showed that the same was true for Betty Hill. Others, however, have argued that media saturation with UFO lore is so extensive that specialized knowledge is unnecessary to flesh out a UFO abduction story. For example, in a study by Lawson and McCall (1978), volunteers who claimed to have little knowledge about UFOs were hypnotized and asked to imagine encountering one. They were then asked a series of specific questions about the objects and entities inside the UFO, and they were also asked to describe the kinds of experiences they might have on board. These subjects were asked a series of (purposely) leading questions, so this is not a satisfying test of how well the average person can spontaneously flesh out the UFO abduction script (Randles & Warrington, 1985). In addition, there were only eight subjects, so

one should generalize from this demonstration with caution. Still, many of the details in the stories of these imaginary abductees are quite similar to those found in the stories of people claiming to have actually been abducted (see Bullard's, 1989a, analysis). For example, the imaginary reports included lying on a table while blood samples were taken and genital examinations were carried out.

Hypnosis and certainty. Although hypnosis does not enhance accurate memory, it does increase a person's confidence in the accuracy of material recalled while in that state, regardless of whether the memories are real or just pseudomemories. In other words, confabulations subsequently seem to be as real and true as veridical memories (M. T. Orne, 1979; Sheehan, 1988a). As already argued, certainty might be enhanced when abduction memories are constructed with what seems like minimal pressure and directiveness from others. Therefore, not only might hypnosis play a role in leading people to create spurious memories of UFO abductions; hypnosis might also facilitate the process of coming to believe that these inventions reflect genuine, actual experiences.

Summary: Hypnosis and abduction memories. Hypnosis is not a magical tool for recovering inaccessible memories. Many sources of bias are present when recall is attempted in this state. Furthermore, as Bullard (1989a) noted, "abduction research contains almost every possible pitfall of hypnotic investigation" (p. 13). (For critiques of the "crude techniques" used by abduction investigators, see also Vallee, 1988, 1990.)

Despite this evidence, and despite explicit pleas from within the UFO research community not to use it carelessly (e.g., Schwarz, 1979), hypnosis continues to be seen by UFO abduction investigators as a robust pipeline to the truth. Some have claimed to believe that material revealed by hypnosis is true by definition and that the technique derives its effectiveness from the fact that the subconscious mind acts as "a tape recorder" (see Lorenzon & Lorenzon, 1977, p. 75; also see Fiore, 1989, p. 325; cf. E. F. Loftus & G. R. Loftus, 1980). Others have professed more awareness of the pitfalls but still utilize flawed procedures (Cosculluela, 1993). In short, there is increasing evidence that hypnosis does not simply reveal the UFO abduction phenomenon—it plays a major role in producing it (for similar issues in the study of multiple personality disorder, see Ganaway, 1989, 1992; W. C. Young, 1988).

Recall Without Hypnosis

As noted, some UFO abduction experiences have been recalled without the aid of hypnosis, and great importance has been placed on this fact by those who have argued for the literal reality of abductions. Baker (1992b), however, minimized the importance of these cases. Given his definition of *hypnosis* as the use of suggestion to stimulate a person's imagination and relax reality constraints (see also Lynn, Rhue, & Weekes, 1990), Baker argued that it is not so surprising that abduction memories might sometimes be constructed without the aid of hypnosis. Enacting the kind of "imaginative role-playing" characteristic of hypnosis is possible even without intentional induction of a hypnotic state. In fact, E. F. Loftus (1993) reviewed numerous cases in which people had been convinced by therapists, family members, or law enforcement officials that they had experienced a traumatic event in the past. People in these situations use a variety of reconstructive strategies to shape the putative memories that fit the experience they are pressured into looking for. The key to implanting false memories, E. F. Loftus argued, is the protracted imagining of events in the presence of authority figures who encourage belief in and confirm the authenticity of the pseudomemories.

So profound is the influence of the expert or authority in charge of investigating the meaning of an anomalous event or disturbing memory that Ganaway (1989; see also Gardner, 1993) argued that the same case could end up being diagnosed as being due to an alien abduction, expression of a multiple personality disorder, or repressed memories of satanic cult involvement. The decisive factor might be the theory of the investigator. This is vividly illustrated by a description of a police interview of one Chad Ingram, as recently recounted by Wright (1994):

> Then, in a painfully halting manner, he described vivid dreams he had as a child: "People outside my window, looking in, but I knew that wasn't possible, because ... we were on two floors and I would ... I would have dreams of, uh, little people ... short people coming and walking on me ... walking on my bed ...
>
> "I couldn't talk. I couldn't move except to close the curtain," Chad went on. "The only thing I could feel is pressure on my chest." (pp. 62–63)

The law enforcement agents interviewing (or interrogating) Chad convinced him that this was no dream but instead was a repressed memory of abuse at the hands of his father. That is what they were looking for, insofar as they were developing a case for indicting his parents on charges of sexual abuse. Unfortunately, the narrative from Wright (1994) is quite plausibly a fragmentary memory of some hypnogogic/hypnopompic hallucination. Furthermore, given some of the details (i.e., little men somehow entering upstairs windows), it is also obviously a memory that could be interpreted as a prelude to a UFO abduction—given an investigator expecting to find that.

Finally, Ganaway (1989) described how some people can move into and out of hypnotic trance states

without the therapist or investigator even being aware that this is happening. These "spontaneous trance states" can occur even without the use of hypnotic techniques. There is also evidence that the ability to enter these states is related to stable individual-difference factors, and it is to one of these that we turn next. Some people might be more likely than others to construct pseudomemories of all sorts, including UFO abduction episodes.

Fantasy Proneness

Fantasy proneness is a personality construct developed by S. C. Wilson and Barber (1983) as a result of their research on a group of highly hypnotizable subjects. S. C. Wilson and Barber estimated that about 4% of the population can be confidently classified as fantasy prone. People with a fantasy-prone personality have extensive and vivid fantasy lives, and they even report having trouble distinguishing between their fantasies and reality. Fantasy-prone subjects are more likely than others to report that they spent much of their childhood in a "make-believe world" interacting with imaginary playmates. As adults, they still spend large parts of their days fantasizing, and they claim to relive memories in all sensory modalities. Valid and reliable instruments are now available for measuring fantasy proneness (Lynn & Rhue, 1988). Although this personality profile is unusual, fantasy-prone people are more often than not well-adjusted and are not particularly likely to show significant signs of psychopathology (Rhue & Lynn, 1987).

There are several indications that UFO abductees are relatively high in fantasy proneness. First, given how many abduction memories are uncovered by hypnosis, it would appear that people constructing these memories are highly hypnotizable. Fantasy proneness is of course significantly associated with hypnotizability; indeed, for S. C. Wilson and Barber (1983), this was the hallmark of the fantasy-prone personality. Other recent studies have also confirmed this (e.g., Silva & Kirsch, 1992), although other researchers have cautioned that the relation might only be moderate (Lynn & Rhue, 1988). In sum, if those reporting UFO abductions tend to be fantasy prone, this would explain their apparent hypnotizability.

Another piece of indirect evidence for a link between UFO abduction reports and fantasy proneness was provided by Ring and Rosing (1990), who found that UFO experiencers reported higher levels of abuse in childhood than did control subjects. Fantasy-prone subjects are also more likely than other subjects to report being physically abused as children (Lynn & Rhue, 1988).[3] Irwin (1990) also reported that fantasy proneness correlated with a wide variety of paranormal beliefs. This finding sheds light on a fact that will be obvious to anyone after even a superficial review of UFO abduction cases: Abductees are typically interested in all sorts of paranormal phenomena. Some claim to possess extrasensory and other psychic abilities (Bullard, 1989b), and others report that they often experience strange poltergeist-like phenomena (e.g., doors opening and closing, lights blinking on and off; Steiger, 1988). Subjects in Ring and Rosing's (1990) sample of UFO experiencers also reported other odd experiences and paranormal beliefs.

Empirical evidence of a link between fantasy proneness and abduction reports is admittedly scant. The first formal psychological assessment of abductees, by Bloecher et al. (1985), made use of the MMPI, the Rorschach test, and the Wechsler Adult Intelligence Scale but did not test for fantasy proneness. Hines (1988), however, summarized that report by noting that "these individuals have great difficulty in distinguishing reality from fantasy" (p. 201). Similarly, Parnell and Sprinkle (1990) concluded that subjects who claimed communication with extraterrestrials did not show severe manifestations of psychopathology but "had a significantly greater tendency to endorse unusual feelings, thoughts, and attitudes" (p. 45). In a novel study, Bartholomew et al. (1991) used archival material to determine the symptomatology of people claiming to have had extensive contacts with alien beings. Biographical information was available for 152 such people, and clear signs of fantasy proneness (e.g., interaction with imaginary companions, out-of-body experiences) were found in 132 cases (87%).

Efforts to establish a more direct link, however, have not been notably successful. Ring and Rosing (1990) and Rodeghier, Goodpaster, and Blatterbauer (1991) found no evidence that abductees are particularly fantasy prone. But, as noted by Bartholomew and Basterfield (1990), Ring and Rosing did not utilize standardized measures; Baker (1991) also pointed out that Ring and Rosing's subjects did in fact seem to have fantasy-prone personalities in that they were shown to be highly imaginal. Rodeghier et al., although standing by their findings, still acknowledged that "all studies have without exception found some peculiarities of abductees that place them somewhere apart from the mass of normal individuals" (p. 62).[4]

[3]Note that we are taking no position on the causal processes underlying this relation. Although fantasy proneness might lead people to construct pseudomemories of abuse, it is also possible that the etiology of fantasy proneness involves childhood abuse.

[4]Most recently, Spanos et al. (1993) found that, among subjects who believed they had sighted or made contact with UFOs, fantasy proneness was positively correlated with the intensity and detail of their reported experiences. It is unclear, however, whether there were any abductees (as defined in the present article) in this sample. In addition, those reporting UFO experiences did not score as more fantasy prone overall than subjects in a "nonexperiencer" comparison group.

Clearly, more research is needed to establish a more direct link between fantasy proneness and the generation of UFO abduction memories (see Bartholomew & Basterfield, 1990; Powers, 1991; Ring, 1990); much indirect evidence, however, suggests such a connection. Abductees are likely to belong to a subset of the population with intense and vivid fantasy lives.

Another line of research pointing toward the same conclusion focuses on individual differences in temporal-lobe stability. People with excessive electrical activity within their temporal lobes (due to either congenital lability or surgical stimulation) have been shown to report a consistent cluster of odd experiences. Among these experiences are visual hallucinations; mystical experiences, often involving elaborate delusions; unusual sounds, smells, and voices; and a phenomenon called "the sense of presence"—an intense feeling of closeness, physical or otherwise, to a godlike or other kind of special entity (see Beyerstein, 1988; Makarec & Persinger, 1990; Persinger, 1989). According to Persinger (1989), one need not be a full-blown temporal-lobe epileptic and prone to uncontrollable seizures in order to experience these phenomena, which are typically felt to be real—that condition represents only an extreme end of a continuum of temporal-lobe instability.

The "visitor experience" reported by abductees might be a special case of the sense of presence, and Persinger (1989, 1992) hypothesized that careful testing of those claiming to have been abducted by UFOs will reveal them to be high on the continuum of temporal-lobe instability. Makarec and Persinger (1990) validated a questionnaire to reliably measure temporal-lobe instability. Makarec and Persinger's questionnaire focuses on what they called "temporal lobe signs"; interestingly, many of these signs would also seem to characterize a fantasy-prone person (e.g., "As a child, I played with an imaginary friend," "I often feel as if things are not real," "I have had a vision"). Future research must pinpoint the conceptual differences between temporal-lobe epilepsy and fantasy proneness, which are highly correlated (Persinger & Desano, 1986).

Maintaining One's Belief in a UFO Abduction Memory

Needless to say, one could construct a memory of a UFO abduction but subsequently decide that the memory was false when faced with the inevitable disbelief of other people and the complete lack of hard evidence for abductions. Some abductees might indeed "recant," but many do not. Among the factors that allow abductees to maintain their beliefs, one of the most important might be the support groups they often seek out and join (see Cooper, 1993; Geist, 1987; Gordon, 1991; Klass, 1990). Such groups are made up of other people who claim to have had similar experiences and who thus help to confirm the reality of the abduction. Some mental health professionals who work with abductees routinely refer their clients to such groups (Mack, 1994). Another psychotherapist (Cone, 1994) remarked, "I know many abductees who center their life around the experience" (p. 33).

Interestingly, this kind of behavior is consistent with predictions derived from Festinger's (1957, 1964) theory of cognitive dissonance. According to the theory, psychological discomfort—or dissonance—results when two or more cognitions are in conflict. For example, a belief such as "People don't get kidnapped by space aliens" is clearly inconsistent with the knowledge that one has reported just such an experience. And, more recent analyses suggest that the discomfort caused by dissonant cognitions is especially strong when it results from having said or done something that is at odds with one's self-concept—that is, something that surprises oneself or makes oneself feel ashamed or stupid (Aronson, 1992; Nel, Helmreich, & Aronson, 1969). Claiming to be an abductee, of course, potentially implies that one might be insane—an attribute that most people would be surprised and ashamed to possess.

Dissonance might be resolved in any number of ways (e.g., by changing beliefs or discounting inconsistent cognitions), but Festinger (1964) hypothesized that, after making a choice, decision, or commitment, people will tend to favor and seek out information supporting their behavior and also to avoid information that would call what they had done into question. Accumulation of behavior-consonant information (e.g., hearing other people's abduction stories) serves to reduce dissonance, and being surrounded by people who share one's questionable belief should accelerate this process. In fact, Festinger, Riecken, and Schachter (1956) argued that the availability of social support for a threatened belief is a necessary condition not only for maintenance of the belief but for "increased fervor" (p. 3). Frey's (1986) review of the literature on selective exposure revealed that such effects—and to a lesser extent, selective avoidance of dissonant information—are most pronounced when (a) the decisions or actions that cause dissonance are perceived to be either irreversible or reversible only at great cost, (b) dissonant information is not felt to be easily refutable, and (c) consonant information is not yet well integrated into one's cognitive system.

The conditions specified by Frey (1986) arguably hold for abductees. If a person announces that he or she was mistaken about an abduction memory, this is tantamount to admitting to an inability to distinguish between fantasy and reality. Hence, disavowing an abduction memory is no easy thing to do. In addition, it is clear that dissonant information (i.e., lack of objective evidence for UFO abductions) would be difficult for abductees to refute,

especially while they are still adjusting their view of reality to accommodate the possibility of alien interventions into their lives. In sum, cognitive dissonance theory would predict that abductees would tend to seek out social support for the unusual and difficult-to-defend beliefs to which they have committed themselves. This, in fact, is what seems to occur.

It might be instructive to compare the behavior of abductees to that of Festinger et al.'s (1956) subjects—members of a "doomsday" group known as "the Seekers." The Seekers believed that they were in touch with wise and powerful alien beings who were revealing the imminent destruction of the world. Needless to say, the Seekers' message did not meet with universal acceptance but instead attracted ridicule. The response of the Seekers was to band together more tightly as a group so as to mutually support one anothers' beliefs and to shield themselves from the threat posed by nonbelievers. In addition, convincing themselves that their beliefs were valid occasionally took the form of identifying other people they encountered as being aliens or in league with the aliens (including, to their dismay, members of Festinger et al.'s research team who had infiltrated the group). Ultimately, the Seekers' search for belief-consistent information took the form of active proselytizing. Successful proselytizing, of course, would increase the number of people with consonant opinions.

As the Seekers did before them, abductees face great skepticism in response to their beliefs. As discussed, abductees commonly respond to this uncomfortable situation in a manner similar to that observed by Festinger et al. (1956)—they band together with like-minded people. Furthermore, it is also common for abductees to report repeated encounters with mysterious people who they are convinced either are aliens or have some connection to the aliens who abducted them—the "men in black" phenomenon (see Conroy, 1989; Rojcewicz, 1987). Finally, proselytizing has also been observed among abductees, as evidenced by Strieber's creation of a "Communion Foundation" for the purpose of spreading the word about the abduction phenomenon (Klass, 1990). Others have also been compelled to share their teachings (see the case studies in Mack, 1994, chaps. 8, 12). As already argued here, it is actually more common for abductees to keep a low profile. It should be noted, though, that the Seekers only initiated their proselytizing when the dissonance produced by their beliefs increased in intensity due to the public disconfirmation of many of the group's predictions.

False Memories: A Summary

We can now sketch a brief outline of how people might come to believe that they had an unpleasant encounter with space aliens (see also Baker, 1992a; Spanos, Burgess, & Burgess, 1994). Most abductees begin with some unexplained experience, feeling, dream, or memory. The most intense and disturbing of these is likely to be a hypnopompic or hypnogogic hallucination. They seek out help in order to make sense of what happened to them and might end up with a UFO expert or a therapist interested in such matters. In fact, they might intentionally seek out such people because they suspect that something of a paranormal nature might have happened. Because of their beliefs about the nature of their experiences, whatever knowledge they have about UFOs (along with science-fiction imagery) becomes intertwined with their actual memories during a subsequent hypnotic regression. This process is reinforced by hints and cues from the hypnotist, and an abduction memory is constructed. If the person involved is highly fantasy prone, he or she will be especially responsive to the hypnotic induction and especially good at generating a UFO abduction story. Abductees are likely to have this trait—given that fantasy-prone people are less able than others to distinguish between actual experiences and imagined ones—and so will be more prone to "remembering" the odd experiences that might lead them to suspect that they have been abducted. Finally, people feel certain that the events reported in the hypnotic situation are true. Not all elements of this scenario are necessary for an abduction memory to emerge, but at least some of them seem present in each case.

Escaping the Self: The Motivational Themes of UFO Abduction Narratives

We have already framed our discussion of UFO abductions in terms of two questions—why people remember things that did not actually happen to them and why they might come up with UFO-abduction memories in particular. In answering the first question, we have in part answered the second: Abduction memories are often "recovered" with hypnosis, and they reflect the biases of the hypnotist and how those biases and demands interact with the hypnotic subject's own knowledge and beliefs. But, although the material reviewed sheds light on how false memories might develop, we do not believe that the mechanisms described are sufficient to explain the striking consistency across most UFO abduction stories that has so baffled observers. Many features of these stories hang together in a nonobvious but, we believe, coherent way. The co-occurrence of these features becomes more meaningful when they are viewed as elements of an escape-from-self fantasy.

As we have argued previously (Baumeister & Newman, 1994), the shape of almost any personal narrative is a function not only of cognitive and contextual con-

straints but of motivational factors as well. How abduction stories are constructed does seem to be affected by an individual's response to the contingencies of the immediate situation (e.g., the demands and expectations of other people). An abductee's knowledge of UFO-related phenomena also plays an important role. More generally, retrieving a memory is a matter of reconstruction, and schemata, expectations, and other cognitive factors direct and constrain this process. The stories we tell about ourselves, however, are not simply a consequence of "dispassionately applying theory to data" (Ross, 1989, p. 353); they are also a function of what we want to believe. As Erdelyi (1993) also argued, motivational and emotional as well as intellective considerations are surely involved in the construction of autobiographical narratives. Personal narratives and stories are intimately related to needs, goals, and wants.

At first glance, the notion that people might be motivated to construct UFO abduction experiences might seem improbable. In the typical account, the person is a helpless pawn of powerful, superior beings who inflict degrading and painful experiences on him or her. A perplexed Randles (1988), for example, wondered, "Who would wish for the trauma these involve?" (p. 200). Jacobs (1992) was equally baffled by "what kind of a psychological mechanism" UFO abduction narratives could possibly reflect and asserted that these stories "would be extremely difficult, if not impossible to attribute to internally generated psychological fantasies" (p. 26). Thus, from some perspectives, the unpleasantness of these experiences apparently diminishes the plausibility that people would be motivated to construct them.

The psychological function of abduction stories is especially puzzling in contrast to the seemingly transparent motives of an earlier wave of people who claimed to have interacted with extraterrestrials—namely, the "contactees" from the 1950s (see Hough & Randles, 1991; Westrum, Swift, & Stupple, 1984). These people's alleged experiences with aliens were quite different from those usually reported today. Typically, the wise, benevolent, and attractive "Space Brothers" (often from the planet Venus) of the 1950s would take Earthlings on voyages to distant worlds and discuss with them important interplanetary matters. People so lucky to be chosen (presumably because of their special qualities or abilities) were given messages to pass along to the people of Earth, usually involving warnings about atomic weapons and a plea for everyone to live together in peace, brotherhood, and harmony. None of these early contactees was kidnapped or assaulted, as today's abductees claim to have been, and the aliens the earlier contactees met have even been characterized as "jolly fellows" (Hough & Randles, 1991, p. 68). George Adamski (1955) was the most famous of these people who claimed to have been chosen to save the world, but many psychologists will be more familiar with Mrs. Keech from *When Prophecy Fails* (already discussed here; Festinger et al., 1956).

These early contactees are now believed to have mostly been deliberate hoaxers, and their motives for concocting their stories seem rather straightforward: Any number of theoretical perspectives are consistent with the idea that people seek to feel and appear important, talented, and unique (see Banaji & Prentice, 1994; Baumeister, 1991b; Snyder & Fromkin, 1980; Tesser, 1986). Such self-aggrandizing patterns are common features of the accounts people provide of experiences in their lives (see Baumeister & Newman, 1994). Contactee stories can be understood to be clear (if outlandish) expressions of needs for self-enhancement.

It is considerably more difficult, however, to explain contemporary reports of encounters with space aliens in the same terms, because the reports do not enhance self-esteem in any apparent way. Mack (1992a), in fact, referred to the standard abduction tale as "a self-destroying traumatic narrative" (p. 12). Hopkins ("Alien Abduction Claims," 1988) made similar observations:

> One of the psychologists who has done interviews with the people whom I've worked with—quite a few of them—said to me, "Why would anyone fantasize a thing like this?" It doesn't give you the satisfaction of a paranoid image where you struggle against overwhelming odds and evils that are following you. On the other hand, it doesn't give you the satisfaction of having been chosen for some wonderful quasi-religious role in the world. In fact, you have been turned into a kind of neutered, powerless figure with no autonomy whatever. (p. 274)

If enhancement of self-worth and perceived control cannot account for the genesis of UFO abduction stories, other needs and motives might be relevant. As already noted, we concur strongly with Langford's characterization of UFO abduction narratives as masochistic (Hough & Randles, 1991). It is quite plausible that the same motivations that cause some people to generate masochistic fantasies might cause others to generate spurious memories of being abducted by UFOs. Baumeister (1989) proposed that masochistic fantasies and desires are derived from a motivation to escape from self-awareness and identity. In response to the threats, stresses, and other burdens of modern egotism, some people become motivated to escape from themselves periodically, and experiences that might thwart self-esteem and control (two central features of selfhood) might help accomplish this. After all, that many people wish and even pay money to be tied up, humiliated, and subjected to mild pain indicates that people are sometimes attracted to such experiences. The motivational factors that lead some people to be-

come masochists are perhaps also being expressed in UFO abduction stories, and these motives might explain why people create spurious memories of such experiences.

Escaping the Self: A Review

The self may be understood as a physical body overlaid with meanings and definitions. Although the roots of selfhood in the physical body might be quite similar everywhere, the meanings and definitions that constitute personal identity depend on culture and society and therefore vary widely across historical, ethnic, and cultural boundaries (e.g., Baumeister, 1986; Markus & Kitayama, 1991; Triandis, 1990).

As argued by Baumeister (1991a), in order to achieve happiness and avoid suffering, the self must accomplish two goals—maintain positive evaluations (in one's own eyes and others') and attain some level of control over the environment. The self needs to be liked and needs to be in control. Awareness of self often focuses on comparison of these meaningful aspects of self with important culturally and personally relevant standards, and, in many cases, the comparison is unfavorable, which makes being aware of the self aversive (Duval & Wicklund, 1972). When self-awareness is aversive or stressful, people will seek to avoid and escape from it (e.g., Greenberg & Musham, 1981).

Baumeister (1991a) identified several causes for the desire to escape from self-awareness. One of these is a recent setback or problem that reflects badly on the self, making thoughts of self highly unpleasant, such as if the person feels stupid, clumsy, or unlovable. The actual experience of failure or some other calamity, however, is not necessary for one to seek refuge from self-awareness. The self might become burdensome simply as a result of constantly having to maintain a positive image of the self. Even if nothing bad happens, a person could experience great stress due to his or her fears about what *might* happen. Strong and persistent demands for autonomy, responsibility, and success can become unbearable, and the pressure to constantly "be in control" and make choices and decisions might eventually take its toll.

Unfortunately, it is particularly difficult to escape from a state of self-awareness. Self-regulation involves monitoring the self to ascertain the success of the regulatory efforts, and so the very act of self-regulation is linked to self-awareness (Carver & Scheier, 1981, 1982). Therefore, a self-regulatory attempt to cease being self-aware is a paradoxical undertaking that contains an internal contradiction.

To avoid this logical paradox, efforts to escape from self-awareness frequently involve shifting attention away from meaningful aspects of the self and onto relatively meaningless (and hence less stressful or upsetting) aspects of the self (Baumeister, 1990a, 1991a). This is accomplished through the process of cognitive deconstruction, which involves mental narrowing for the purpose of stripping away meaning. Typically, when we perceive events, we link them to one another and to other aspects of our knowledge, including past events and knowledge about ourselves. It is this interpretive activity that gives events meaning and connects them to who we are, what we have done, and what might happen to us—that is, our personal identities. If one can avoid consideration of the implications of one's behavior for oneself or others, one can escape the self.

A process of cognitive deconstruction replaces (in the person's awareness) meaningful action and experience with mere bodily movement and sensation. Instead of focusing on the meaningful aspects of self, such as one's identity and its relation to standards and ideals, the person might focus on the physical self and how it feels. In particular, the most problematic aspects of selfhood—namely, the pervasive concern with self-esteem and efficacy—might be avoided in favor of attending to mere bodily processes and sensations. If successful, this method of deconstruction and escape will reduce one to a biological entity experiencing only pain and pleasure, as opposed to a wife, husband, mother, father, lawyer, or student who has just failed an important test.

The essence of cognitive deconstruction is thus active avoidance of meaningful thought. The deconstructed state has a number of general characteristics. One is *cognitive immediacy,* or the shrinkage of the time span to the here and now. One focuses awareness exclusively on what is happening in the immediate present. Past and future events recede from awareness, as do thoughts about other people. Related to this is a *procedure orientation.* Cognitive deconstruction involves a focus on the techniques, instruments, and other detailed aspects of the activity in which one has become immersed. One attends to the means and not the end. Focusing on procedural details helps people to evade the broader context of their actions. For example, Baumeister (1990a) noted that those involved in the Nazis' genocidal projects appeared to focus their attention on the technical aspects of their jobs (i.e., the procedures and equipment used to efficiently kill people) rather than on the moral implications of their actions.

There are various techniques for escaping from self-awareness, and these differ in their potency, ease of use, and appealing side effects. Alcohol consumption appears to be a popular and effective means of reducing self-awareness (Hull, 1981; Hull, Levenson, R. D. Young, & Scher, 1983; Steele & Josephs, 1990). The presuicidal mental state involves various deconstructive shifts, and the suicide attempt itself might be a powerful means of concentrating attention

on a narrowly circumscribed sphere (Baumeister, 1990b). An eating binge appears to involve mental narrowing, cessation of self-monitoring, and other features common to escapes from self (Heatherton & Baumeister, 1991). In a more positive context, many spiritual regimens cultivate systematic techniques for shedding egotism and other familiar aspects of selfhood, and, indeed, many meditative exercises emphasize mental narrowing and cognitive deconstruction (Baumeister, 1991a). For the present purposes, however, the most relevant pattern of escaping self-awareness is sexual masochism, to which we now turn.

Masochism As Escape From Self

Although the term *masochism* has had multiple, complex, and inconsistent usages, the original meaning referred to a pattern of sexual activity, and other usages are based on putative analogies to sexual masochism (see Baumeister, 1989). This original and prototypical masochism involves submission to another person through loss of control, humiliation and embarrassment, and/or pain. The masochistic activities often serve as a prelude to some form of sex, but, in some cases, sex remains at the level of fantasy and arousal. Contrary to popular belief, most masochists are very careful to avoid injury or genuine danger, and they tend to prefer limited, carefully measured doses of pain rather than extreme ones (Baumeister, 1989; Scott, 1983).

The removal of self-awareness has been depicted as the essential part of the appeal of masochism (Baumeister, 1988b, 1989, 1991a). Masochism can be understood as a set of techniques that systematically make it impossible for the person to continue being aware of himself or herself in conventional, familiar terms. First, bondage and other aspects of submission undermine the self's persistent efforts to seek control and efficacy. Masochists are frequently tied up and rendered incapable of activity and initiative. Among other devices, ropes, scarves, neckties, stockings, handcuffs, and gags are typically utilized as restraints (Baumeister, 1988b). In addition, he or she typically must submit to other people and follow their commands. The self as a responsible decision-maker is in this way rendered irrelevant, so, for those who find those requirements of the self to be burdensome, masochistic activity will serve as an effective escape.

Humiliation and embarrassment further thwart the self's concern with maximizing esteem and might even leave too little dignity to maintain any normal adult identity. Men are dressed as babies or in women's underwear; women are tied naked to a table with their legs spread in a roomful of strangers; people are treated like dogs, complete with a leash; and people are forced to engage in a variety of submissive and/or degrading sexual activities. Other people present often deepen the embarrassment and humiliation by making derogatory comments about the masochist's behavior or performance. Last, consistent with the pattern of deconstruction, pain undermines meaningful thought and focuses attention on immediate physical sensations (see Scarry, 1985).

The profile of the typical masochist is also revealing. Other than their sexual activities, the average masochist seems quite normal. In fact, Spengler's (1977) study of German masochists found them to be typically successful individuals from the upper (and upper middle) classes, and other studies have reached similar conclusions (see Baumeister, 1989, for a review). Overall, masochism is more common among upper socioeconomic classes than lower ones and more common among Whites than Blacks, and (contrary to stereotypes) it may be more common among men than women (Baumeister, 1988b). The distribution of masochism in the population supports its conception as an escape-from-self phenomenon; those with the most inflated selves seem to be most drawn to it. People with higher paying and more prominent jobs, with more responsibility, and, hence, with bigger burdens on their egos seem to be most likely to engage in masochistic activity.

The cultural and historical relativity of masochism supports the hypothesis that it is linked to modern Western problems of selfhood. During the early modern period (1500 to 1800), Western culture changed to render individual selfhood much more problematic, and masochism seems to have spread through Western culture at about the same time (Baumeister, 1986, 1987, 1988b, 1989). That is, when the culture subjected people to increasing pressures to be independent, autonomous, self-creating, and individually successful, masochism spread, presumably as an appealing form of escape from those very pressures. The historical record is thus consistent with the notion of masochism as escape from self.

To sum up, masochism is a particularly effective means to deconstruct meaning and escape the self. It temporarily undermines key aspects of the self—particularly the active, controlling, agentic aspect and the esteem-maximizing aspect. Ironically, then, the experiences of being tied up, treated like a slave, whipped or spanked, dressed in demeaning costumes, verbally abused, and subjected to various other indignities can have a widespread and potent appeal to many people—at least as an escape from everyday life and the ongoing pressures of modern selfhood.

Similarities Between Masochism and UFO Abduction Accounts

As just detailed, the main features of masochism—both actual activities and fantasies—are pain, loss of

control, and humiliation. All three of these themes dominate UFO abduction accounts.

Pain. Pain is a central feature of many UFO abduction narratives. What abductees are subjected to is often quite unpleasant and sadistic. Vallee (1988) even stated that, if aliens are actually carrying out physical examinations, "the UFOnauts should go back to medical school" (p. 240). In fact, although sometimes the pain that is recalled is intense—some abductees have reported feeling as if they were being ripped apart—often the pain is administered in quite manageable doses. Bullard (1987a) noted that some describe their limbs being roughly flexed. Also typical is a story by one of Fiore's (1989) subjects, who said that the aliens hurt her when "they ... poked, poked, poked, poked ... and ... just poked everywhere ... every little rib and bone and muscle" (p. 25; see also Jacobs, 1992, p. 58).

The hypothesized parallel between the painful procedures described in both masochistic fantasies and UFO abduction accounts also more fully explains a fascinating discovery by Disch (1987), who reviewed Strieber's (1987) *Communion* for the weekly magazine, *The Nation.* In his book, Strieber parenthetically mentioned having written a short story called "Pain" (1986). Disch tracked down the book in which the story had appeared and observed that it had an "acorn to oak" relation to the later *Communion.* "Pain" is about a man who does research on prostitutes in New York and who allows himself to be drawn into some of their activities. More specifically, the protagonist (who, as described, bears a remarkable similarity to Strieber) participates in classic masochistic rituals: He is tied spread-eagle to a bed, beaten ("I felt a thrill of pain"), and locked in a small steel closet that is heated with a blowtorch ("Thank you," he says, like a masochist responding to a spanking). The protagonist's experiences cause great enlightenment—there are even numerous hints that the pain inflicters in the story are not quite of our world—and he learns that pain "lifts the burden of self from your shoulders" (p. 276) and causes one's "identification as a separate self" to ebb away (pp. 279–280). Both phrases articulate the notion of escape from self in explicit terms. Disch concluded that Strieber had made "the imaginative equation between the 'archetypal abduction experience' and the ritual protocols of bondage and domination" (p. 332). Whether the "imaginative equation" was deliberately made or not, we agree that the connection is not coincidental. The escape-from-self framework provides a parsimonious way of explaining why someone attracted to or fascinated by the painful rituals of masochism would also generate a UFO abduction narrative.

Loss of control. In the case of masochism, loss of control is generally accomplished through bondage. Straightforward physical restraints sometimes appear in UFO abduction stories as well. Some abductees report wearing collars (Hopkins, 1987, p. 98), and others describe being pinned down by armbands (Lorenzon & Lorenzon, 1977, p. 26) or tied down with rubber tubing (Mack, 1994, p. 74). Metal and Velcro-like straps also appear (Lorenzon & Lorenzon, 1977, p. 59; Jacobs, 1992, pp. 83, 90). Many narratives, however, simply indicate that the aliens, in some mysterious, unexplained way, deprived the person of all control. In fact, a sense of being externally controlled was identified by Hopkins (1987, p. 12) as the most common attribute of UFO abduction tales. As Strieber (1987) reported:

> I felt that I was under the exact and detailed control of whomever had me. I could not move my head, or my hands, or any part of my body save for my eyes. Despite this, I was not tied. (p. 15)

Later, discussing an alien he had identified as female, Strieber (1987) noted: "In her presence, I had no personal freedom at all. I could not speak, could not move as I wished" (p. 100). Similarly, another abductee reported that "a force ... it wouldn't quit holding me. It wouldn't let me move. ... I'm just stuck there ... just an invisible force" (Lorenzon & Lorenzon, 1977, p. 56).

Over and above physical and other kinds of restraints, abductees and their narratives more generally emphasize issues of personal control and the ability to exercise it. This is vividly illustrated in the following cases investigated by Fiore (1989):

> I'm inside some sort of roomlike area, on a table, undressed, nude, and I don't like this at all. I'm totally out of control. One of the things I really hate about it is the feeling of being out of control, completely in their power, the feeling of being probed. I don't have any recollection of severe pain, but definitely discomfort and fear. Apprehension. They could do anything they wanted to do with me, and I have no choice in the matter. (p. 70)

> That's when I realized that what I said didn't make any difference. That's really hard to deal with, when you're a person who likes to sense that you have control over your life, and you've spent thirty-eight years of your life making decisions in relative freedom, practicing some self-government. But you're practicing it on yourself, self-discipline. To have someone else say to you, "You haven't got the choice. We have to do this." There is no choice. That's the hardest thing, Edie, to experience. You have no choice. (p. 299)

Similar comments abound in other accounts. In a case presented by Steiger (1988), an abductee said of the aliens that "it was necessary to show me that they had control. I must never doubt that they have control over me or anyone else" (p. 93). One of Jacobs's (1992)

subjects, reliving her experience, reported that "I have no will. I have no will. I'm being absorbed and I'm not fighting it" (p. 99). And, in 10 of the 13 cases presented by Mack (1994), surrendering and losing control are explicitly discussed as either a central feature of the UFO abduction experience or as something the experience teaches people they must learn to do.[5] Mack's own treatment of this theme is quite consistent with our hypothesis that it represents an implicit desire for deconstruction of the self. Mack (1994) remarked:

> The helplessness and loss or surrender of control which are, at least initially, forced upon the abductees by the aliens—one of the most traumatic aspects of the experiences—seem to be in some way "designed" to bring about a kind of ego death. (p. 399)

Not only do "loss of control" themes appear in UFO abduction accounts, but there is some indication that abductees are often people with strong needs for control in their everyday lives. Such people might occasionally yearn to relax their vigilance. Strieber (1987, 1988) noted several times in his writings that he always perceived a need to maintain control as being a central issue in his life. For example, he confessed to disliking air travel because flying in airplanes means giving up control to others (Strieber, 1988, p. 165). And Gordon (1991), summarizing his experiences at a conference for abductees, observed that they seemed in general very concerned with maintaining "control in their professional lives" but that their abduction experiences have taught them lessons "about their own vulnerability, and the Earth's, that allow them to give up the illusion of personal control" (p. 92).

Humiliation. As discussed, humiliation—especially sexual humiliation—is central to masochism. The same seems to be true for the UFO abduction experience. For example, male abductees often make note of vacuum-like devices being attached to their genitals (see Hopkins, 1987, pp. 200–201; Jacobs, 1992, p. 124). Mack (1994) noted that the aliens "delight in watching humans in all sorts of acts of love, which they may even stage as they stand watching and chattering as the abductees perform them" (p. 416). In an especially revealing incident in *Communion,* Strieber (1987) told of an alien impatiently asking him if he could "be harder" (p. 77). In addition, according to Conroy (1989, p. 159) the original manuscript of Strieber's book included an incident in which aliens led him away by his penis. Editors insisted the incident be removed from the final draft.

Sometimes, anal humiliation is involved. Strieber (1987), for example, claimed that his captors inserted a large object into his rectum, as did a female abductee hypnotized by Fiore (1989, p. 16; see also Jacobs, 1992, p. 93; Mack, 1994, p. 283). Another means of humiliation was described in a case presented by Bullard (1987b, p. 40): A man reported that his alien captors dressed him up in a diaper (a portion of the transcript from this case is presented earlier in this article). As discussed by Baumeister (1989), such treatment as a helpless, subservient infant is one popular form of masochistic fantasy and activity.

Oddly enough, according to Bullard (1987a), "in the end the witness often leaves the company of his captors with a sense of affection for them and a sadness at their departure, paradoxical impressions considering the treatment he received" (p. 14). Strieber, for example, reported positive feelings for one of his "female" tormentors, exclaiming that he "would like to take her away, for my own self." However, Strieber was quick to qualify that statement: "If I had that sort of sentiment I think she would be extremely annoyed. She's already nearly always extremely annoyed with me, which is fine. I don't mind that" (Conroy, 1989, p. 363). Similarly, after discussing the "feelings of humiliation and violation" that accompanied the rectal probes given by the aliens, one abductee "expressed gratitude for 'the wonderful opening experience'" (Mack, 1994, p. 300). Such happy endings and feelings of affection for the aliens seem quite incongruous, given the humiliations abductees have supposedly suffered at their hands. Such sentiments, however, make sense from a perspective that views abduction narratives as being about the fulfillment of an intense desire to escape the self. As discussed by Baumeister and Newman (1994), masochistic narratives also frequently end with expressions of gratitude, positive feelings, and an eagerness to repeat the experience.

Despite the many incidents of sexual humiliation, a review of one of the most complete collections of abduction accounts (Bullard, 1987b) reveals at least one important way in which abduction narratives long differed from explicitly masochistic accounts—actual sexual intercourse was extremely rare. Baumeister (1988b), by contrast, found that intercourse was mentioned in almost half of the letters from masochists that he analyzed. Recently, sexual activity between extraterrestrials and their human captives has become a more common feature of UFO abduction reports (see Mack, 1994). Jacobs (1992) even observed that sexual activity and the collection of sperm are now a defining feature of the UFO abduction phenomenon. As has been noted by others (e.g., Klass, 1988b), this latest fashion in abduction lore—along with elaborate presentations of human–alien hybrid babies to female abductees who are said to have borne them—seems to be largely

[5]For example, see pages 67, 80, 86, 92, 97, 108, 126, 128, 156, 167, 175, 192, 226, 251, 275, 281, 296–297, and 325.

traceable to a small handful of investigators for whom sex is central to understanding "what the aliens are up to." In all probability, then, this trend is an example of how easily the biases and expectations of hypnotists can shape what is apparently recalled during hypnosis.

Who gets abducted? Contrary to some popular stereotypes, abductees cannot fairly be characterized as unsophisticated hillbillies. Although reliable data are unavailable, current evidence tentatively suggests that the typical abductee resembles the typical masochist. This would support the view that masochistic fantasies and UFO abduction memories have similar motivational roots.

As already noted here, masochists tend to be from the higher socioeconomic classes (Baumeister, 1988b). The same appears to be true for abductees. Note, for example, the professions of the subjects in the Bloecher et al. (1985) study, the first reported psychological testing of abductees—college professor, electronics expert, actor/tennis instructor, corporation lawyer, commercial artist, business executive, director of chemistry laboratory, salesman/audio technician, and secretary. Obviously, not all were in high-paying professions, but white-collar jobs predominated. Rodeghier et al. (1991) also noted that these subjects had "greater educational attainment" and "higher educational status" than average. Rodeghier et al. found this especially notable due to the fact that the same was true of their own sample of 27 abductees. In another recent study of UFO claimants (Parnell & Sprinkle, 1990), subjects' mean amount education was 14 years. Finally, the letters describing abductions sent to Strieber tend to come, he said, from people who are "often in the professions, often very highly educated" (Conroy, 1989, p. 139).

Studies of sexual behavior also indicate that masochism is more common among Whites than Blacks, and the same seems to be true of UFO abductions (Randles, 1988). In this connection, Gordon's (1991) comment that those attending a meeting of abductees were almost all White is more than just a casual observation.

Some evidence thus seems to indicate that UFO abductees are more often than not those who are likely to have "inflated selves"—White, middle-class Americans—just like masochists. For example, although Strieber is a successful author of best-selling books, he reported a long-standing problem with performance anxiety (1987, p. 274). He reported living with the fear that failure is just around the corner. Such anxiety is typical of those with "overinflated selves"—people who, like politicians and executives, are constantly called upon to perform and make decisions and who, perhaps as a result, show relatively high frequencies of escapist activities such as masochism.

As we noted, people who have recently suffered personal calamities constitute another group motivated to escape from self-awareness, because the calamity's implications about the self might be aversive and upsetting. Such people also abound in the UFO abduction literature. One reviewer of the history of UFO abductions (Rimmer, 1984) noted that calamaties are often preceded by "some sort of personal crisis," such as the breakup of a marriage. For example, Hopkins's (1987) book, *Intruders: The Incredible Visitations at Copley Woods,* focuses for the most part on a female abductee whose pregnancy had recently been mysteriously terminated.

Although burdensome egos and personal calamities are apparently prominent among the common features of UFO abductees, other features seemingly reflect direct escapist activity. Strieber (1987) described the many abductees he has met as typically being "people on the run, constantly making changes, moving, leaving, escaping" (p. 274). Gordon (1991) also observed that—when abductees would hear about "the sudden desire to change jobs or leave a spouse or move from one's house and community—there is nervous laughter: if they haven't done it, they've been tempted, or know someone who has" (p. 88). These characterizations yield a picture of abductees as people dissatisfied with aspects of their identities and looking for avenues for escape. Moving to a new life is one extreme version of escaping one's identity, and such fantasies have been documented as common among masochists, suicidal individuals, and other people who exhibit patterns of escaping the self (Baumeister, 1991a).

In sum, abductees overall seem to fit the profile of people who would be expected to be drawn to fantasies of escaping from self. These people would thus be especially likely to construct a classic UFO abduction narrative when hypnotized.[6]

The international picture. UFO abduction reports are most frequent in "Western countries or countries dominated by Western culture and values" (Mack, 1994, p. 11). More than that, UFO abduction reports seem to be primarily an American and British phenomenon (Bullard, 1989b, Rimmer, 1984). Estimates of the proportion of abductions reported in the United States alone have varied from greater than half (Randles, 1988) to 80% (Rimmer, 1984). Although some reports have surfaced in Australia (Basterfield, Godic, Godic, & Rodeghier, 1990), as of 1984, none had arisen in China (Hynek, 1984), and Bullard (1987a)

[6]Although children are also said to be abducted (Hopkins et al., 1992), these reports most often seem to be retrospective reports by adults (e.g., Fiore, 1989, pp. 78, 135; Hopkins, 1987, p. 204). Reports by children themselves are usually quite different from the standard UFO abduction story and seem more like familiar childhood "bogey man in the closet" nightmares (see Hopkins, 1987; Mack, 1994, p. 77).

noted that "Asia and most of Africa remain blanks on the abduction map" (p. 4). Randles (1988) concluded that the evidence is consistent with the possibility that "abduction is a product of the mind of Western white people." Either that, Randles said, or "some intelligence behind the abductions prefers to contact such people" (p. 158). Either way, abductions seem to be reported primarily in individualistic societies (see Triandis, 1990), where the burden of selfhood is greatest. This too parallels masochism, which appears to be confined almost entirely to modern, Western societies (Baumeister, 1988b, 1989).

Analyses of Sex Differences in Abduction Stories

Both males and females can be masochists, and their masochistic practices and fantasies include the same main elements (i.e., pain, loss of control, and humiliation). There are, however, important sex differences in masochistic "scripts." Baumeister (1988a) collected a series of letters describing masochistic experiences and fantasies and compared those written by males and females. Overall, the most significant difference was the greater overall "feminization" of men (e.g., through transvestitism) and the higher incidence of other forms of status-loss humiliations in men's letters (e.g., being treated as an animal or baby). Numerous other sex differences in the letters' details were also found. Specifically, the males' letters included more severe pain, oral humiliation, partner infidelity, and active participation by third persons, whereas the females' letters more frequently reported pain of any kind and also included more humiliation involving display, genital intercourse, and the presence of nonparticipating spectators. Finally, females' letters were more likely to contextualize pain as punishment occurring in an ongoing relationship.

If attraction to masochism and the construction of UFO abduction stories do in fact spring from the same intrapsychic sources, some of the sex differences revealed in masochistic fantasies and experiences should also be detected in abduction accounts. To test this hypothesis, we made use of the file of UFO abduction cases catalogued by Bullard (1987b). According to Bullard (1987a), these cases comprise the complete set of abduction cases known to researchers as of 1987. Although most are not actual transcripts of abductee recollections, these summaries include all of the details known about each case as reported by the abductees.

Many of the features of masochistic scripts coded by Baumeister (1988a) could not be reliably coded from the Bullard (1987b) stories, including severity of pain and the division of characters in the stories into participants versus spectators. Other factors were not relevant to abduction stories, such as transvestitism and "punishment of misdeeds in an ongoing relationship." In addition, as noted earlier, genital intercourse was infrequent in UFO abduction accounts as of 1987. Clearly, an exact conceptual replication of the Baumeister study was not possible, so our more modest goal was to compare males' and females' narratives in terms of the frequency of two important (and codable) features—display humiliation and the mention of pain.

Bullard (1987b) presented 270 cases, but most were not appropriate for coding and were excluded a priori from further analysis. Fifty-eight involved only "missing time" or fragmentary memories suggesting an abduction took place; 18, classified as "simple abduction cases," contained no details other than the fact that contact was made with aliens; 17 cases were stories about people who were supposedly kidnapped by aliens and never seen again; 5 were sample "contactee" stories, which tended to be qualitatively different from more modern abduction tales (see previous discussion); and 3 were acknowledged hoaxes. Finally, the "abduction complex" category was also excluded. These 11 cases were for the most part summaries of multiple incidents involving many people over long periods of time, and it was not always possible to disentangle the stories so as to pinpoint separate accounts by individual people.

One hundred fifty-eight stories remained after these categories were excluded. Many of these remaining stories involved alien contact but were quite discrepant from the classic abduction story. Clearly, there was no way of distinguishing the "real" abduction stories from those reflecting some other phenomenon (e.g., lying or psychopathology), but, in order to be certain that we were focusing on prototypical abduction stories, we further selected only those involving the central element of a physical examination. Overall, 84 cases included some incident that could be construed as a physical examination or medical procedure (e.g., "The beings laid the witness on a table and examined her with various devices," "During an examination he felt pain and had difficulty breathing," "The beings took blood samples from the witnesses' left hands").[7] These were then divided by sex of abductee, which was usually a simple matter. Most of the stories described alleged incidents that involved only one person, and Bullard clearly identified all abductees as male or female. In some cases, more than one person was said to have been abducted, but only one of them served as an informant, and the sex of that person was clear. Other cases involved more than one witness or "victim," but they

[7]It is important to note that our criteria for deciding whether a physical examination took place were different from Bullard's (1987a), who reported a figure of 133 examinations (p. 5). For example, in Bullard's scheme, an event such as "light or light beam shines on witness" would be classified as an examination, based on his inference about the meaning of those events.

were of the same sex. Four others (including the Betty and Barney Hill case) described events in which two people of different sexes were involved, but their stories could be clearly distinguished. In these cases, the separate narratives were both coded. Unfortunately, 4 other stories of the latter type were based on composite testimony, and it was not possible to identify the sex of the people who had reported the individual details of these narratives. Therefore, these 4 cases were excluded. The final sample of distinct abduction narratives including examinations by aliens thus consisted of 84 separate stories.

Display. As noted, the masochistic experiences described by females in the Baumeister (1988a) study more often involved display humiliation than did the masochistic experiences described by males. A classic fantasy of this kind was described by Reik (1941/1957), who discussed a young girl who

> derives her pleasure mainly from the idea that she is lying naked and at full length on a long table ... with her legs spread wide so that her vagina is distinctly visible. A man, whose face is only dimly distinguishable, stands at her feet and scrutinizes her genitals. (p. 236)

This kind of scenario serves to humiliate a woman by turning her into a caricature of an unflattering stereotype of femininity—the woman as passive sex object (Baumeister, 1988a). Abduction narratives were also coded for the presence or absence of display. For the large majority of cases, display took the form of being stretched out on a table by one's captors, although there were a few exceptional cases that seemed to involve other display procedures (e.g., in one story, the abductee was displayed prone against a wall).

Table 1 reveals the results, broken down by sex. Only 50% of the males' stories involved display, but the comparable proportion for females approached 80%. A chi-square analysis showed this to be a significant difference, $\chi^2(1, N = 84) = 7.42, p < .01$. This aspect of the UFO abduction accounts paralleled the letters from the masochists in Baumeister's (1988a) study. Sex differences in certain imaginative details brought to bear on masochistic activities were thus also found for descriptions of abductions.

Table 1. *Display Imagery in Abduction Accounts, by Sex of Abductee*

	Sex	
	Male	**Female**
Display	25	27
No Display	25	7

Note: Includes only abduction stories with physical examinations.

Note that Table 1 reveals that 59% of the abductees reporting examinations were men. Similarly, more than half (55%) of the letters gathered by Baumeister (1988a) were by men. In neither case, though, was this proportion significantly greater than chance (in this study, $p > .1$). Baumeister, discussing his and other studies suggesting that there might be more male than female masochists, cautioned against reaching this conclusion due to an important confounding factor—men might be more likely than women to report any deviant behavior or experience. This caveat arguably applies to the present data on UFO abductions as well. In fact, of the 74 remaining accounts of abduction-related experiences not involving an examination, 53 were by males and only 13 were by females (8 could not be put in either category because both male and female informants were involved, and their narratives could not be disentangled). On the other hand, among people willing to report experiences with UFOs, women are more likely than men to report the classic abduction with an examination experience (72% vs. 48%). This sex difference is significant, $\chi^2(1, N = 150) = 7.42, p < .01$. It must be emphasized, though, that past reviews have not yielded any consistent evidence that the UFO abduction phenomenon is in any way sex-linked.

Pain. Nineteen abductees overall (23%) explicitly mentioned pain or physical discomfort. In addition, the frequency with which pain was mentioned varied by sex—32% of the women ($n = 11$) versus only 16% of the men ($n = 8$) explicitly mentioned pain.[8] This difference approached significance, $\chi^2(1, N = 84) = 3.09, p = .078$. Although this marginal difference might be an artifact of the sex differences in display imagery (table examinations might be imagined to be more painful), it is important to note that the direction of the difference replicates a similar one revealed by Baumeister's (1988a) analysis of masochistic letters. Although the appropriate interpretation of this finding is not immediately obvious, it represents another parallel between the kinds of stories men and women tell when they are elaborating on masochistic experiences and the kind they tell when describing alleged UFO abductions.[9]

[8]These numbers appear to be inconsistent with our assertion that experiencing pain is a standard part of UFO abductions, but it should be noted that, in other cases, the details make it all but certain that pain was experienced, even though it was not explicitly mentioned. For example, in one case involving a male abductee, the aliens "drew a blood sample from the witness's finger with a device like an electric razor, and afterward the witness lost consciousness." In some cases, though, pain was explicitly denied—one woman said her captors took blood samples and burned holes through her skin "painlessly."

[9]A second coder examined stories for pain and the presence of display imagery. Collapsing across both features, agreement was high (87%), and so the first coder's numbers were retained for analysis.

Oral humiliation. Baumeister (1988a) also found that oral humiliation was more frequently a part of males' than females' masochistic scripts. Such humiliation included being required to kiss the feet or anus, having panties stuffed in one's mouth, being required to orally consume sexual fluids, and other unpleasant or degrading uses of the mouth. Kissing feet and having panties stuffed in one's mouth did not correspond to anything that is reported as occurring during UFO abductions. Seven reported abduction cases, however, involved unpleasant oral experiences of other kinds: In one case, the aliens smeared a "gray substance" on the male abductee's mouth; in a second case, a man was given a "a bad-tasting liquid" to drink; in a third case, the aliens "placed a wire" in the man's mouth; a fourth man complained of a "metallic taste" in his mouth; the aliens tried to make a fifth man eat transparent food; a sixth man found himself swallowing capsules given to him by an alien, although he "normally resisted taking even aspirin"; and, finally, a woman had an "instrument" placed in her mouth. Oral humiliation was thus a low-frequency category. Still, it might be noteworthy that six of the seven cases (all but the last) came from male abduction narratives. Thus, again, there is some resemblance between the apparent sex differences in masochistic scripts and the sex differences in UFO abduction accounts.

Abduction Narratives As Escape From Self: More Parallels

General concerns about selfhood. Above and beyond the other specific features of abduction narratives discussed here, an obvious concern with independence and individuality is often apparent. More specifically, the aliens seem not to have any. Strieber (1987), in particular, was struck by his sense that "there is very little sense of self associated with individual members of their species. ... They are not afraid of man's savagery or his greed, but of his capacity for independent action" (pp. 142, 231). Another abductee, speaking for those in her support group, complained that "we feel that when we were abducted, that individual freedom has been taken away, and they don't understand that. They don't really understand our sense of freedom and being allowed our own will" (p. 265). Similarly, another abductee marveled at how "they don't seem to have any understanding of the fact that we have a sense of free will here on this planet and that we think and act as individuals" (Steiger, 1988, p. 14), and still another concluded that "what has happened to them is they lost their identity, their individuality and uniqueness. Maybe they have lost their sense of destiny and of individual achievement, all these individual things that we take for granted" (Fiore, 1989, pp. 303–304).

Clearly, the issue of the self as independent and unique is one that preoccupies people who claim to have been victims of UFO abductions. "If I could give up my autonomy to another," Strieber (1987) mused, "I might experience not only fear but also a deep sense of rest. It would be a little like dying to really give oneself up in that way" (p. 101).

Cognitive immediacy. As Baumeister (1990a) discussed, one of the most important aspects of the deconstructed state is cognitive immediacy—past and future events recede from awareness, and one's focus is exclusively on the present. Frequently, UFO abduction accounts describe someone who has achieved that state. Jacobs (1992) best captured this aspect of the experience in his synopses of typical UFO abductions:

> She has no concern for what she was doing before the abduction. If she is abducted with her son and daughter and they are no longer in sight, she may quickly forget about their plight. Brothers and sisters may forget about each other. ... Almost everything that is happening to her during the abduction is forgotten as her attention is continually fixed on the present. Some abductees have more of a continuity of memory, but it is severely restricted at best. Janet Demarest explained it: "When I'm there it's like one thing happens, then the next thing happens. I completely forget about the first thing that happens. I have no sense of who I am." (pp. 90–91)

> The Beings express absolutely no interest in anything about the abductee's daily life apart from physiology. They express no interest in her personal, social, or family relationships. ... They express no interest in politics, culture, economics, or the rich and extraordinarily complex tapestry that makes up human relationships and societies. They do not ask even idle questions about this. (pp. 232–233)

Strieber's (1987) narratives also involved a state of cognitive immediacy, as the following excerpts indicate: "Whitley ceased to exist. What was left was a body in a state of raw fear. ... I was reduced to raw biological response" (pp. 16, 18).

Procedure orientation. As previously noted, escaping the self by achieving a deconstructed state is often accompanied by adopting a "procedure orientation." If one focuses on the minutiae of one's actions—instruments, techniques, and so forth—one will more easily escape becoming aware of broader meanings. Safecrackers, for example, might focus attention on their tools so as to avoid considering the moral implications of their behavior (Baumeister, 1991a); masochists might preoccupy themselves with and fetishize the paraphernalia they use (whips, chains, etc.).

Considerable portions of abduction accounts are devoted to detailed descriptions of the instruments and

machinery used by aliens, as well as the layout of the crafts and the clothing they wear (see Jacobs, 1992, chaps. 4, 5). Travis Walton, for example, described a "hospital-like room lighted by a rectangular fluorescent panel, shaped like a piece of pie with the tip bitten off, and constructed of seamless metal," and a "plastic, rocker-shaped device curved around his rib cage" (Bullard, 1987b, p. 125). Strieber's (1987) story included an alien "wearing an inept cardboard imitation of a double-breasted suit, complete with a white triangle of handkerchief sticking out of the pocket" (p. 171). Many stories devote particular attention to the devices used by the aliens to humiliate abductees sexually. For example, one abductee described both a "faucetlike device" that was placed on his penis and "wires" or "leads" attached to his testicles (Mack, 1994, p. 96). Another gave a detailed description of a stainless steel, aluminum, or chromium "comb-shaped gimmick" with a "rounded lower section that fits up over the testicles" (Jacobs, 1992, p. 124). (This interviewee added that this device "looks like a piece of machinery that no mistress of domination would be without"—a comment that is quite consistent with the masochistic analysis of these accounts.) Generally, such attention to detail is consistent with the typical mentality of low-level, deconstructed mental states (Baumeister, 1991a; Vallacher & Wegner, 1985, 1987).

Interestingly, this wealth of detail might play an important role in making abduction narratives sound like descriptions of real experiences. M. K. Johnson and Suengas (1989; see also M. K. Johnson, 1988) found that, when people try to distinguish between real and fabricated memories, they rely heavily on the presence or absence of concrete perceptual aspects of the described events. When many such details are mentioned, people use this as a cue to infer that the memory is real.

Conclusion

Thus, accounts of being abducted by UFOs are not entirely unique and incomprehensible. They exhibit many features common to patterns of deconstructed mental states in the service of escaping the self. In particular, stories and fantasies about sexual masochism have many features in common with UFO abduction stories. If UFO abduction accounts are indeed not genuine, literal renditions of actual events, then they might be understood as fabrications that arise from the familiar motivation to escape from the self.

Rival Hypotheses

Although we have offered one possible cognitive-motivational account of the origins of UFO abduction accounts, other explanations more subtle than insanity or mendacity have been put forward as well. In this section, we review them very briefly.

One increasingly popular method for studying UFO abduction stories and related phenomena is the folkloric approach. Researchers taking this perspective focus on the similarities between modern abduction stories and older folktales (Bullard, 1989b, 1991), especially medieval legends (Vallee, 1988). As discussed at length by Bullard (1989b), the aliens in abduction stories can be understood to be updated versions of the fairies, leprechauns, ghosts, trolls, and witches of traditional myths and legends, who were also known to kidnap ordinary people and subject them to stressful and surreal ordeals. Although the creatures in traditional legends practiced magic and witchcraft, those in abduction narratives instead possess an advanced science and technology. Instead of emerging from the "otherworld," aliens visit from outer space. Bullard (1991) succinctly summarized the themes of this work with his observation that "substitution of a superscientific technology for magic restores the credibility of the fantastic in a secular age with little faith in things magical" (p. 5; see also Bynum, 1993; Ellis, 1988; Ring, 1989; Rojcewicz, 1987).

As Jacobs (1992) noted, however, the parallels revealed by folklorists often consist of not much more than the fact that the central characters in abduction reports, like those in old legends and myths, tend to be small and to have supernatural powers. Furthermore, it is doubtful that this kind of analysis will be able to provide an explanation of the UFO abduction phenomenon that will be satisfying to most psychologists or laypeople. As Bullard (1991) was careful to point out, examination of UFO abduction stories from a folklore perspective will not provide answers about the authenticity or even the source of such stories. Most important, folkloric accounts cannot tell us why people would believe they personally experienced the events described by the "UFO abduction myth," which is not typically true in the case of other popular traditional legends—or even contemporary ones (e.g., see Brunvand, 1986, on "urban legends").

Lawson's (1982, 1984) "birth trauma" hypothesis was yet another attempt to make sense of the abduction phenomenon. Lawson emphasized the obvious "foetal" appearance of many of the UFO occupants—outsized heads and eyes, small limbs, and sometimes even webbed hands. Also telling, Lawson claimed, are the medical atmosphere and imagery of many accounts and the fact that abduction narratives often involve movement through narrow tubes or halls into rounded (and arguably "womblike") interior rooms. Lawson's conclusion was that those reporting alien abduction memories are in fact recalling and reexperiencing their own births. The birth-trauma explanation has received quite a bit of attention, perhaps due to its novelty. Unfortu-

nately, it requires the implausible assumption that a fetus in the womb can see itself and store this image in memory (for a discussion of this and other objections, see Bullard, 1987a; Rimmer, 1984).

One final alternative hypothesis about the underlying motives of people claiming to have been abducted and mistreated by UFO occupants is that they seek to depict themselves as victims for the sake of the benefits that might accrue to that role. According to this account, people claim UFO abduction experiences in order to provide an excuse for any flaws and inadequacies they fear they might possess. In other words, they claim to be victims and demand to be so treated. Being a victim has its advantages—a person cannot reasonably be blamed for any of his or her faults if the faults are traceable to the depredations the person suffered at the hands of sadistic aliens. In fact, people are usually evaluated less harshly by others when their failures or other negative qualities are traceable to external and uncontrollable causes (Weiner, 1986).

Unfortunately, at least as a public excuse, an abduction confession would not be particularly effective. First, it would have the unwanted side effect of leading others to believe that one is deluded or insane. People are quite sympathetic to survivors who claim that they were victims of early childhood sexual abuse or even ritual satanism, but this is because most of us accept that children are often abused, and because many people also believe that cults are widespread. Fewer people believe UFO abductions occur. According to a recent poll (Gallup & Newport, 1991), only about 27% of the people in this country believe that extraterrestrial beings have ever visited Earth. Presumably, even fewer believe that aliens are currently visiting our planet and abducting its inhabitants. Also, if it is true that most abductees prefer to keep their stories secret (Hopkins, 1987; Jacobs, 1992), such an "excuse" would not help them save face in other people's eyes.

Conclusion

Several facts are clear. First, many people claim to have had experiences that explicitly involve abduction by aliens into UFOs. Unlike the "contactees" of the 1950s, those who report being captured no longer claim to have been treated like esteemed ambassadors from Earth. Instead, their experiences tend to be unpleasant and degrading. Thousands of American citizens have furnished accounts of such abductions, and survey researchers using indirect markers have concluded that millions of Americans fit the criteria of abduction victims. Although the stories vary, there are many common features, and we were able to offer a prototype based on a large number of accounts. Despite the sincere conviction of many people that they have been abducted by UFOs, however, there are ample reasons to doubt the accuracy of these accounts—such as the inherent implausibility that alien spaceships are visiting Earth and abducting hundreds or even thousands of unwitting human beings every day; the complete lack of corroborating physical evidence; and the dubious distribution of accounts and its implication that aliens prefer to continue abducting White middle-class Americans while largely ignoring the rest of the world. In sum, the UFO abduction phenomenon constitutes a spectacular example of the unreliability and creative capacity of autobiographical memory.

The project of this article has been to take UFO abduction accounts seriously but not literally. Simple, dismissive interpretations of these accounts do not provide satisfactory explanations. That is, the majority of accounts cannot be written off as lies, attention-getting ploys, or symptoms of mental illness. By the same token, explanations based on folklore, memories of traumatic birth experiences, or a desire to claim victim status fall short of explaining the phenomena.

We have attempted to offer a cognitive-motivational explanation of how spurious memories of UFO abductions could be created. A cluster of cognitive processes provides a plausible account of how the pseudomemories can be generated and why people believe them. Most UFO abduction accounts have been obtained with hypnosis, and hypnosis has been shown to be a potent source of spurious memories that can be influenced by the expectations, beliefs, and motivations of both the hypnotist and the subject. In many cases, the belief that one might have experienced something strange might originate with a hypnopompic or hypnogogic hallucination, which, with the aid of the hypnotist, might become elaborated into a spurious memory of UFO abduction. Fantasy proneness and other factors might predispose certain individuals to accept the eventual belief that puzzling memory fragments reflect a buried memory of UFO abduction.

With regard to the more daunting question of why people would construct and elaborate such seemingly unpleasant experiences for themselves, Hall (1994) exclaimed:

> I haven't the foggiest idea of what is going on. From the empirical standpoint (without invoking any explanation) the evidence overwhelmingly supports the interpretation that the victims suffer great pain, disorientation, fear, embarrassment, etc. Their entire concept of reality is badly shaken. Only a masochist could find something positive in that! (p. 16)

We have proposed that an explanatory key might in fact lie with sexual masochism and its underlying motivation to escape from ordinary self-awareness. Many parallels and even some explicit links can be found to associate

UFO abduction accounts with masochistic fantasies—including passivity and helplessness, pain, bondage, degrading experiences, patterns of gender differences, and an often subtle eroticization of the entire experience. Like masochistic rituals, UFO abduction experiences could remove the person from his or her ordinary network of concerns, relationships, and strivings and then strip away many of the centrally defining features of the person's identity, deconstruct the person's familiar structures of self and world, enforce cognitive immediacy through a mixture of pain, pleasure, and suspense, and then finally return the person to his or her ordinary life with a sense of having had an extraordinary, transforming experience during the timeout. Although such experiences are not among the most fundamental human desires, they are widespread and understandable, and the desire for them appears to conform to cultural and historical patterns that have placed a heavy emphasis on a particular, inflated, and potentially burdensome conception of selfhood.

People are sometimes mistaken in their beliefs about what they have experienced. Those mistakes usually do not involve capture and abuse at the hands of extraterrestrial tormentors. Still, a wide variety of pseudomemories might be constructed through similar processes, and they might be to a great extent shaped by our needs, motives, and desires.

Notes

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