

BOOK REVIEWS

Remembering Trauma by Richard J. McNally. The Belknap Press of Harvard University Press, 2003. 448 pp. \$35.00 (hardcover). ISBN 0-674-01082-5.

Abducted: How People Come to Believe They Were Kidnapped by Aliens by Susan A. Clancy. Harvard University Press, 2005. 179 pp. \$22.95 (hardcover). ISBN 0-674-01879-6.

Is it time to bury UFO abductions? Previous obituaries have been premature, even laughable, but Richard J. McNally and Susan A. Clancy drive the sharpest nails yet into the coffin of abduction belief. Both authors develop the already familiar theme that not aliens but interacting conventional causes are responsible for abductions, but these two Harvard psychologists depart from most prior research in the rigor of their laboratory studies to identify the earthly causes for these unearthly claims. The irony is hard to escape that a Harvard psychiatrist, the late John Mack, brought a high tide of respectability to abductions while researchers at the same university now confront the subject with its severest challenge.

Many people will hail the conclusions of McNally and Clancy as the final epitaph for abduction. Their case is a formidable one, but close inspection shows that the subject lies in an unquiet grave after all.

Abductions began their vigorous forty-year lifespan in 1966 when John G. Fuller told the story of Barney and Betty Hill in *The Interrupted Journey*. Since then hundreds, even thousands of people have laid claim to the abduction experience. Along the way the subject gained a dynamic advocate in artist Budd Hopkins during the 1980s, the vivid testimony of author Whitley Strieber when he recounted his personal experiences in 1987, and academic converts like historian David Jacobs and John Mack in the 1990s. Abductions have become a central tenet of UFO belief and part of the cultural mainstream, with images of big-eyed aliens and plot lines of kidnap aboard spaceships now universally familiar, embodied in movies, TV, books, tabloids, cartoons, advertisements, even alien-head cookie jars.

The story is at once surreal and compelling. It begins with a light following a car on a lonely road or strange beings surrounding a bed in the dead of night. A sense of helplessness overwhelms the driver or the wakened sleeper, who then loses memory for two hours or so. Later through hypnosis or spontaneous recall the events of those missing hours return as the narrator remembers lying in a circular room while dwarfish aliens perform a gruesome medical examination that usually includes a scanning device, staring eyes, implant of a tiny device in the head, and removal of sperm or eggs. A conference may follow when the aliens impart prophecies and some vague sense of mission. Less common subsequent episodes include meeting with human-alien hybrid children, a visit

to an exotic otherworld, or observation of a scene or ritual of apparent spiritual significance. The captives then return to their everyday environment and resume their lives, troubled perhaps by thirst or nosebleed and subject to nightmares, anxiety, and panic attacks. Over the long term, paranormal experiences and additional abductions may occur, and the abductee may change habits and career in a search for a more creative, humane, and spiritual life. Some people even believe they are part alien or had a prior existence on another planet.

These claims are incredible but the claimants are not. Rather than stand out as obvious eccentrics or yarn-spinners, they seem for the most part credible folk who function well in society and hold responsible jobs, varied in backgrounds and beliefs, with no obvious motivation to fabricate tales about aliens and many practical reasons not to become entangled in this kind of weirdness. Yet these apparently dissimilar people continue to step forward with accounts sufficiently similar to lend the story a disturbing verisimilitude. Moreover the narrators deliver their accounts with such conviction and sincerity that the strangeness seems secondary and even doubters take pause to ask—can any of this be true after all?

Abductions present a tempting target for reductive explanations and an abundance of them litter the course over the past forty years: abductees are mentally disturbed, fantasy-prone, subject to temporal lobe disturbances, or in search of escape from ordinary reality through masochistic fantasies. Abduction is a screen memory for child sexual abuse or a form of shamanic initiation as the unconscious responds to human destruction of the earth. The content derives from perinatal imagery, guilt over abortion, an overdose of science fiction, and broad cultural exposure to fairy lore and the general plot structure of fantastic tales. Recovery of the story depends on fantasy enhanced by hypnosis or the confabulation of a pliant subject led by suggestions from a believing ufologist. Since none of these single answers has proven adequate, a growing consensus abandons the one-shot solution to regard abductions as false memories or "believed-in imaginings" created from a combination of experiential and psychological causes. McNally and Clancy join the chase along a similar explanatory path.

McNally and Clancy arrived at the study of abductions in a roundabout way. A bitter war unfolded in the 1980s and early 1990s. It was a conflict over the nature of memory, and if many combatants dueled only in the academic psychological literature, another battleground was the courtroom with tragic consequences all across the country. Accusations of child molestation against the staff of a California day-care facility in 1983 snowballed into a rumor-panic as parents began to interpret every action of their children as evidence for sexual abuse. Though eventually acquitted of wrongdoing, the day-care operators in this case were among the fortunate as the accusations spread from California to North Carolina and more than fifty individuals went to prison for their alleged crimes. No physical evidence confirmed the accusations, only testimony badgered from very young children by repeated, aggressive questioning and use

of suggestive techniques like "anatomically correct" dolls. The accusations escalated into bizarre claims like satanic rituals and molestations performed aboard a boat guarded by pet sharks, but with credulity in keeping with the witch trials of three hundred years before, juries swallowed the claims.

Another front opened in the 1980s with the rise of a self-help movement that blamed emotional ailments of women on sexual abuse during childhood. This was another old idea made new. Early in his career Freud attributed hysteria to childhood sexual abuse, though he soon substituted Oedipal fantasies for literal molestation. A new generation revived his first idea as the right one and asserted that the problem happened on an enormous scale—only most victims forgot that the abuse ever happened. An elaborate theoretical framework sprang up to explain how such heinous crimes could go undetected. The key was their very heinousness—recurrent abuse from primary caregivers traumatized the children. Left with no escape but mental withdrawal, the children repressed or dissociated the memories, pushing them so far out of mind that the happy, normal child of the day had no awareness of her horrible, tormented nights. This double life nevertheless had its consequences. The hidden traumatic stress erupted into adult life as anxiety, depression, overeating, or sexual or relationship problems; the cure was to recover the repressed memories and face the truth. A cadre of recovered-memory therapists set to work hypnotizing women; self-help books prescribed do-it-yourself therapy like answering checklists or imagining abuse to see if it might trigger flashbacks; and support groups brought together women to talk, often endlessly and emotionally, about possible abuse. In this atmosphere of expectation and encouragement hundreds of middle-aged women began to recall histories of abuse and seek closure, a part of the self-help program that meant taking legal action against elderly, often bewildered parents for these alleged childhood crimes. Famous people like a former Miss America and comedienne Roseann Barr lent their support by public assertion that they too had recovered memories of abuse.

The recovered-memory advocates had things pretty much their own way throughout the 1980s. Prosecutions succeeded in court, legislatures voted to remove the statute of limitations on accusations of crime delayed by repression, and a world where abuse occurred behind every other door suited the political agenda of some feminists who accused a patriarchal society of treating women as property. Yet some alarms began to sound when experts like Elizabeth Loftus cautioned that memory does not work like a video recorder. Rather than stored intact, memories are products of reconstruction and subject to alteration based on subsequent information and beliefs. Researchers also questioned the extravagant claims made for traumatic repression. The theories made superficial sense but much evidence contradicted the folk wisdom that robust amnesia followed traumatic shock. What research showed instead was that the recovery techniques often created false memories out of suggestions and expectations.

As the case for repression unraveled and the implausibility of the accusations finally sank in, advocates stopped winning court cases by the mid-1990s and

some disillusioned clients even sued their therapists. The proponents fought back with accusations that doubters were on the side of the pederasts and with research to shore up the case for repression. The scientific evidence weighed overwhelmingly in favor of the critics (see the December 1998 issue of *Psychology, Public Policy, and Law* for a face-off between advocates and critics that reads as a one-sided defeat for repressed memories). Yet the controversy was no longer a scientific one, it was a matter of faith and a key tenet in a political agenda. Advocates were determined to win official sanction for their belief that repressed memories hid widespread child abuse and, like creationists, were willing to adapt the subject to a changing climate as needed to save the belief.

This war has left behind no winners, just casualties. Its victims are the accused and the convicted, the families shattered and individuals tormented by delusional crimes, the businesses and reputations destroyed, the field of psychology rent with acrimony, and the campaign to prevent genuine sexual abuse impaired by confusion. The fighting goes on, now more underground than in the open, but advocates still score victories: In 1999 Congress blundered into the controversy to condemn a scientific paper for "moral and methodological" shortcomings after the authors found no evidence that most forms of child sexual abuse led to serious psychological consequences later in life. Proponents continue to assert the validity of repressed memory in distinguished venues like *Science* (see 2005 April 22, p. 501, and August 19, pp. 1182–1185), and some appear in court as expert witnesses in an effort to spread claims from outside the bounds of consensus science. McNally and other legitimate experts in human memory research have worked to counter the influence of repressed memory claims. These veterans from the trenches have shot down many unsubstantiated claims presented as established facts, but as researchers they also have had to seek new ammunition from the laboratory against their tireless and innovative foes.

In a series of experiments McNally and his colleagues tested people with claims of repressed and recovered memories. Subjects who claimed repressed memories of childhood sexual abuse scored higher for psychological distress, negative emotions, dissociation, and fantasizing than subjects who had always recalled their abuse and subjects who recovered abuse memories during therapy. Another test of similar subjects with word lists found more false memories among the subjects claiming recovered memories, while experiments to find if repression and trauma led to enhanced ability to forget words related to the source of trauma discovered no such facility. Yet another trial failed to confirm that subjects claiming repressed or recovered memories reacted to trauma-related words like people suffering post-traumatic stress disorder (PTSD). The upshot of these experiments was no evidence for a repressive mechanism at work among people claiming repressed or recovered memories of sexual abuse, but good evidence that these same people are prone to fantasy.

As suggestive as this work was, it still suffered limitations. How do we know if people claiming repressed memories of abuse were really abused or not?

Without a way to pin down the ontological status of the claims, the debate would continue to go in circles because the abuse proponents could always argue that unfavorable findings came only from subjects without abusive memories to repress. What the experimenters needed was a surrogate for recovered memories of abuse, another instance of memories lost through apparent traumatic amnesia and brought back by the usual therapeutic means. Only let the memories be for events unlikely to have happened and without any strong political or emotional lobby. Wonder of wonders, an ideal candidate was at hand. UFO abductions fulfilled these requirements and more, since not only did abductions parallel the ways and means of repressed memory formation, but the stories also took the form of an elaborate traumatic experience. A study of abductions would throw light on what sort of people, what sort of techniques created an imaginary story with the feel of a real experience; and if anyone complained that abductions were fantasies while abuse stories were real, then why accept one and reject the other when both emerge in the same way and no external evidence supports either one? Abductions would then serve as a reduction-to-absurdity for repressed memories of abuse.

Clancy and McNally recruited eleven abductees with recovered memories of experiences with aliens and nine subjects who believed they had been abducted but lacked specific memories of interactions with aliens. A group with no abduction experiences provided a control. The outcome was greater false recall and false recognition among both groups of abductees—in other words, the same tendency toward false memories observed in subjects claiming recovered memories of abuse. Another experiment with ten abductees found that they responded to scripts describing a stressful abduction scenario with the physiological reactions characteristic of PTSD patients, the same increases in heart rates, sweating, and breathing. Moreover, the abductees acted in a similar way when they heard scripts about other harrowing events that these subjects had not experienced, whereas control subjects registered no such responses. The authors concluded that belief has the power to create strong emotional reactions indistinguishable from the effects of traumatic experience, and consequently emotion or conviction cannot establish the validity of recovered memories.

McNally did not tarry long in UFO-land. His interest in abductions extended only to the perspective they lent to the larger debate about memory, while Clancy saw abductions and abductees as worthy of study in themselves and necessary to understand the broader human context of false memories. She drew on interactions with abductees in support groups and interviews with some fifty candidates for the experimental studies to augment the laboratory data and answer the most telling questions about abduction belief—why do people come to think they were abducted, why do they have convincing memories of abduction, why are the stories consistent, what is the psychological nature of abductees, and why might they want to believe that they were kidnapped by aliens? Her answers provide a thoroughgoing conventional explanation for the contents, processes, and motivations behind UFO abduction reports.

Clancy discovered that few people started out with memories of aliens and examinations but only with clues that raised a question. These clues could be as innocuous as nosebleeds, marks on the body, or long-term anxiety, but they acquired significance once connected to abduction beliefs. Other clues could be suggestive in the most compelling way when the witness awakes to feel paralyzed and find shadowy forms around the bed. Making a connection between this terrifying experience and alien intrusion is not even a leap but a mere step, and one that several of Clancy's abductees cited as the initial source of their suspicions. Though it has little cultural recognition in the United States and no familiar name, sleep paralysis is a physiological phenomenon that results from an overlap of sleep and waking cycles. Its consequences may include immobility, terror, a choking sensation, and a sense of shadowy presences. The physiological, emotional, and hallucinatory elements of sleep paralysis fit the phenomenology of bedroom abductions and leave little doubt that a strange and genuine but conventional experience underlies abduction stories, with former cultural fears of demons and hags now replaced by aliens.

People look to familiar possibilities for the cause of their strange experiences, and abduction has grown so familiar that even without firm memories of spaceships or aliens, some people seek out investigators of abduction or therapists sympathetic to the possibility. The standard tool to break the alien-imposed embargo on memories of abduction is hypnosis, guided imagery, or some other procedure that fosters relaxation, and the results can be striking. Vague anxieties and fragmentary thoughts may congeal into vivid, extended abduction scenarios full of alien eyes, painful examinations, and raw terror while the client weeps and screams in the therapist's office. Reading or thinking about abduction or exposure to a TV show on the subject may trigger a similar revelation. For the ufologist these memories recapture the missing time of an abduction experience, the emotional conviction of the abductee proves their reality.

Clancy reverses the causality of these assertions to argue that the therapist creates rather than reveals an abductee. Both client and therapist know what to expect, both work toward the same end of finding abduction memories. The measures used to stimulate recall bring out the worst in the human memory process. They enhance distortion, fantasy, and the amalgamation of truth with fiction even as they charge the imaginary memories with an emotional sense that the events actually happened. Helped along by suggestions and reinforcements from the therapist, the client arrives uncertain but leaves convinced, impervious to doubts that the initial suspicions resulted from anything but an alien encounter. Some people build similar false memories from images of abduction in the media or from rehearsing the possibility in imagination, but again the memories spring from influence of suggestion and not alien industriousness. Much experimental work confirms that procedures like those used to recover abduction memories lead to creation of false memories as convincing and emotionally resonant as the real thing.

From the early days of abduction reports ufologists noted a surprising consistency in the stories. Their similarity has grown into a leading argument for an objective experience, but Clancy counters with two responses: In the first place, she did not find much consistency in the stories of the people she interviewed. Yes, certain stock descriptions and episodes repeated, but overall the accounts were idiosyncratic and varied in their details as fantasy products ought to be. In the second place, the abduction story is public property, so ubiquitous that if you are not familiar with it by now, you have well-nigh convicted yourself of living on another planet. The plot developed in the science fiction movies of the 1950s and took prototypical shape in the Barney and Betty Hill story, itself full of borrowings from the media, like the slant-eyed alien from "The Bellerophon" episode of *The Outer Limits*, and the needle in the navel from a scene out of the movie *Invaders from Mars*. A popular tradition grew out of the Hill case as the media picked up the idea, added a bit to it here and there, and standardized and distributed the story to inform would-be abductees ever after of what a proper alien encounter ought to be like. Experiments in hypnotizing non-abductees have demonstrated that they tell perfectly respectable abduction stories, to further confirm that the cultural script is so well internalized that anyone can read off a stereotypical version of the scenario. Consistency proves not that the story is literal, only that it is popular.

What are the abductees themselves really like? Clancy devotes considerable space to the people she met. Some of them are pretty loopy individuals—channelers and sensitives, opinionated nerds and conspiracy buffs, even one man who learned from the aliens that his wife was a reincarnation of Jesus and he should kill her. Others were perfectly normal—sane and intelligent, professionals and similar high-functioning individuals, uncertain about what had happened to them but still haunted by some strange occurrence in their past. Her abductees proved to be as diverse a group in their ages, occupations, educational levels, and beliefs as other abduction researchers have found. On the whole her abductees were normal but not entirely without distinctiveness. She noted a tendency to shizotypy among them, not a mental illness but a preference for eccentric beliefs and magical thinking, for creativity and independence, for feeling and intuition over reason. Abductees manifest behaviors comparable to hysterical illnesses, where the intense emotions and bizarre actions of the sufferers mimic culturally expected symptoms of genuine afflictions like PTSD, yet do not derive from a physical cause. The abductees show imaginativeness and fantasy-proneness to enhance their ability to act the cultural role of abductee. Their source-monitoring skills are also weak, so ideas from the media, dreams, and real-life experiences combine fluidly to create false memories indistinguishable from memories of real events. This distinctiveness was not enough to disrupt normal lives but enough, given sufficient help, to create a convinced abductee.

Why would anyone want to think they were abducted? Clancy acknowledges this as the hardest question. After all, abduction is an unpleasant matter of

kidnap, terror, pain, and tinkering with one's private parts by compassionless, indifferent non-humans. In her efforts to take the problem "seriously, but not literally," she became aware that the abductees she interviewed gained a great deal from the experience. It brought them meaning, not just an answer for nosebleeds and an occasional period of missing time but a way to connect the dots of many life problems. Loneliness, a sense of being different, sexual complaints, unhappiness—the sum of life's dissatisfactions made sense once rewritten as consequences of abduction, as sexual abuse did for women who recovered repressed memories. The script need not reflect historical truths as long as its narrative truths unify the diverse pieces of life history into a meaningful whole. For believers the result is understanding, relief, and satisfaction.

Clancy also unearthed a deeper layer of meaning in abductions. They did not merely excuse shortcomings or set up an external agent to blame for misfortunes, but equipped believers with a new vocabulary to express religious sentiments. Her informants repeated the paradoxical assertion that abduction was the most traumatic yet the most positive experience of a lifetime. The terror and outrage were there, but so was a sense of transformation, of contact with a reality that recalibrated their outlook on life and their place in the scheme of things. Abductees felt like better people; more complete, full, and aware than before the experience; and more hopeful and confident of the future. These sentiments and concerns assume the language of the sacred, and therein we can understand the powerful appeal of abduction, whatever its origin—this experience serves a religious function without the familiar religious symbols, replacing them with a quasi-scientific guise acceptable to modern times.

Clancy and McNally have set the study of UFO abductions on a sound basis of experimental evidence, but they do not begin in a vacuum. Most of their findings match the results from prior psychological studies of abductees. As a group they score a slight elevation on the MMPI schizophrenia scale (Parnell & Sprinkle, 1990); manifest creative, intuitive, and unconventional tendencies (Gow et al., 2001; Slater, 1985); and incline to eccentricity and independent thinking (McLeod et al., unpublished data). Abductees often affirm odd sensations, unusual perceptions, and psychic experiences (McLeod et al., unpublished data; Ring & Rosing, 1990; Rodeghier et al., 1991; Spanos et al., 1993) or also more nightmares, sleep disturbances, and phenomenology of sleep paralysis than do controls (Blackmore, 1982). Abductees are often interested in paranormal beliefs and are familiar with the literature (Keul & Phillips, 1988; Spanos et al., 1993; Stone-Carmen, 1992). Most abductees are psychologically normal and show no evidence of anomie or social marginality (Denzler, 2001; Parnell & Sprinkle, 1990; Rodeghier et al., 1991; Spanos et al., 1993; Stone-Carmen, 1992), though a subset manifests a divergent MMPI profile and claims a rich fantasy life and childhood abuse (Rodeghier et al., 1991). Many abductees indicate unhappiness and dissatisfaction (Keul & Phillips, 1988; Persinger, 1992), a negative home atmosphere and childhood stress (Mack, 1994; Ring & Rosing, 1990), and inclination to suicide (Stone-Carmen, 1992). One study

found abductees low in self-esteem, impaired in interpersonal relationships, and sexually dysfunctional (Randle et al., 1999), though other studies found abductees secure in their interpersonal relationships (McLeod et al., unpublished data), with no propensity for unusual thoughts, mystical experiences, or magical ideation (Keul & Phillips, 1988; Spanos et al., 1993; Stone-Carmen, 1992).

One noteworthy difference between the findings of the Harvard researchers and previous studies concerns fantasy-proneness. Once hailed as the probable solution to abductions, fantasy-proneness failed confirmation in several direct tests (McLeod et al., unpublished data; Ring & Rosing, 1990; Rodeghier et al., 1991), even when the experimenters were skeptics (Spanos et al., 1993). The findings of McNally and Clancy are quite the opposite—this tendency is prominent among abductees. Yet even here they do not stand alone, since one other study identifies abductees as elevated in scores for fantasy-proneness versus non-abductees (Gow et al., 2001). All in all, everything in the research of McNally and Clancy falls within the mainstream (if the trickle can be so called) of previous results, nothing is unexpected or unsupported.

Is this the end? Has everything been said that needs to be said and the controversy laid to rest? The work of distinguished researchers at the world's foremost university leaves no reason that I can see to challenge their methods and procedures, but if the studies are airtight on the inside, some holes may remain in applying the conclusions outside the scope of those studies. To attribute the experience to sleep paralysis, the content to cultural scripts, and the emotional conviction to processes of false memory creation can explain many abduction accounts, but the abduction phenomenon is bigger than this container. Not every case fits this explanatory profile.

One such exception is the account of Kary Mullis (1998), winner of the 1993 Nobel Prize in Chemistry for invention of the polymerase chain reaction. Mullis arrived at his mountain cabin about midnight one night in 1985, dropped off the groceries, and headed for the outhouse. On the way he saw a glow under a tree and shined his flashlight there to see a luminous raccoon looking back at him with beady eyes. The raccoon said something like "Good evening, Dr. Mullis," and the next thing he knew, he was wandering in the woods some distance from the cabin. It was near dawn but in spite of having spent about six hours outside, his clothes were dry of dew. He slept a while then searched for his flashlight without success when he wakened, aware that his whole strange encounter should disturb him more than it did. Only when he entered a certain part of the woods did a panic reaction set in, a feeling that whatever had happened to him during his missing hours had happened here. For a year and a half he seldom returned to this area that had always been his favorite, then one night he brought a semi-automatic rifle, ordered whatever was there to come out, and shot up the spot. This action brought him a sense of relief.

Mullis does not believe that he was abducted by aliens, nor did he see a UFO. He did take an interest in the cover of *Communion* when he saw it in 1987, but the alien image did not jar loose any alien memories of his own. Mullis simply

insists that he had a very weird experience and that he was not drunk. Ufologists recognize the phenomenology of this encounter as commonplace—luminous entities, an animal with prominent eyes, missing time, a sensation that something happened, panic reaction to a place or situation, and an obsession to return to the site. These clues often resolve with hypnosis or spontaneous recall into large-eyed aliens and an abduction scenario. Sleep was not a factor in the Mullis case, nor was it possible for Barney and Betty Hill. They were driving and stopped several times to look at the UFO, finally becoming excited as it drew near. In any case they were too alert to have slept or been subject to highway hypnosis. Out of 437 reports published up to 1996, one-fourth of the abductions occurred on the road, and highway together with outdoor settings totaled 54%. Even when the abduction occurred at home the abductee was often alert and active. Most of these cases did not involve sleep and consequently no sleep paralysis, unless it has some unrecognized waking version. "Harvard, we have a problem . . ."

Suspicious over hypnosis are well founded but not necessarily good reasons to dismiss abductions. A sizable fraction of reports emerge without any formal application of hypnosis or relaxation techniques, most abductees remember something on their own. In a grad student's hypnosis of eleven abductees, two produced no new information during hypnosis, seven elaborated on episodes consciously remembered, and only two introduced entirely new episodes (Day, 1998). Such results are hardly ringing indictments of hypnosis as creator of abduction memories. The expectations of the hypnotist are also crucial in shaping false memories and all UFO investigators presumably expect to find abductions, also to find a preferred meaning in them. In fact, abduction investigators find abductions and support for the interpretations they desire, but what the investigators do not find despite their different expectations is much difference in descriptions of the UFO experience. John Mack wanted evidence for spiritual transformation and found it; he did not want to hear about aliens spending most of their time on technological examinations, but heard it anyway. So it goes from investigator to investigator, each has an agenda and the accounts prove flexible enough to allow an interpretation to suit that agenda, yet what happens, the events, and the descriptions of the abduction experience present a hard kernel that does not yield to varying desires. Hypnosis, leading questions, and processes of confabulation may well have their effect on some aspects of the story, but the experiential core seems notably impervious. This is not the right way for a proper fantasy to act.

Clancy did not see this consistency in the people she interviewed and we must respect this finding as true to her sample. At the same time a pattern of differences and idiosyncrasies runs counter to a great deal of prior experience, hundreds of reports wherein descriptions of the aliens and the UFO interior, the episodes and procedures and their order, physical and mental effects, and aftereffects repeat with surprising similarity, sometimes down to minor details never popularized in the media. The apparent consistency of abduction stories

has most impressed me as reason to think abductions are more than fantasies. If Clancy's observations are the way things really are and only ufologists' self-delusions support a coherent story, most of the case for abduction as a genuine phenomenon falls into shambles. An attempt to understand these disparate conclusions holds clear importance.

While Clancy had the benefit of firsthand interviews, she did not have much historical perspective. She raises the important point that everyone knows what to expect in abduction and the most likely reason for reports to seem alike is prior knowledge. This assertion is now quite true, but it was not always so. Early reports from before the mid-1970s show many elements now familiar and some of them, like aliens staring close into the eyes of a captive or aspects of the hybrid-making subplot, were not even recognized as thematic elements of the story. The media had not familiarized the world with these motifs, yet they were there all along. The prediction that key cultural events like the movie *Close Encounters of the Third Kind* (1977) and Whitley Strieber's *Communion* (1987) would have such vivid and widespread impact that they would standardize abduction-related imagery certainly makes sense, if culturally based fantasy underlies the story. A comparison of reports on record before and after these two landmark events is revealing—they had very little recognizable effect on 42 key elements of descriptive content. Aliens were short and bug-eyed before 1977 and their looks have not improved since (Bullard, 1999).

Clancy's effort to extend the origin of prior knowledge from direct sources like *Communion* to broad, indirect cultural influence follows a long critical tradition. Much effort has gone into tracing this or that abduction motif to some 1950s science fiction movie or literary antecedent, but such appeals are problematic. The wraparound eyes described by Barney Hill probably did originate with an episode of *The Outer Limits*, but efforts to trace Betty's needle-in-the-navel to a scene from *Invaders from Mars* relies on a brief juxtaposition of a structural element of the spaceship with the captive heroine, and I have never found the relationship convincing. Clancy, in her admitted "crash course" in old science fiction movies, left some gaps in her education since she asserts that the aliens actually stuck a needle into their captive. Neither can old movies be a good source of consistency in the story, since Hollywood presented an abundance of images and why abductees would select the same few still begs for an answer. She appeals to an experiment (Lawson, 1977) with hypnotized non-abductees who told a convincing abduction story as evidence that cultural influences are so standardized that anyone could tell a similar story. What she failed to notice was that each participant in that study described a different type of alien, with nothing like the recurrent proportion of short humanoids in actual accounts.

Abduction reports have never been mere carbon-copies of one another. A certain amount of variation is inherent—for example, "Nordics," tall blond human occupants have always appeared in about 20% of reports, sometimes alone and sometimes alongside the more familiar "grays." In these cases it is

worth noting that even the variation is consistent, with alternative descriptions reappearing in similar proportions over the years. Several changes have crept into the story, like messages about environmental concerns and reports of military personnel working alongside the aliens, but the overall impression from hundreds of reports is one of profound monotony rather than innovation. As a folklorist I find this level of stability intriguing. Rampant variation is a way of life for other belief narratives like urban legends, where a tight plot structure means that even the slightest change threatens to spoil the story. Yet human imagination finds a way to feature similar actors in different plots and different actors in the same plot in an endless effervescence of creativity. By contrast, abduction stories are long, fantastic, and loosely constructed, on every count inviting variation and innovation that nevertheless fails to materialize. Human creativity is equally defiant of the standardizing influences of the media. They may provide a cultural script but the human users are less likely to read it than ad lib from it, and so it should be with abductions, if they are in fact products of fantasy.

The ambiguities of verbal descriptions may be responsible for some of the differences that struck Clancy. In one report after another the words emphasize one feature or another until the aliens sound quite unlike, only to resolve into the image of a familiar face once the abductees draw what they were talking about. Another possible cause is whether the listener takes the glass as half empty or half full. Every report is idiosyncratic in the sense that each individual tells an individualized story unique to personal circumstances and responses, each narrator may emphasize some detail or peculiarity at the expense of a dispassionate and even-handed treatment of the overall picture. As a result the differences can seem to overwhelm the similarities. But are the aliens and what they do and where they do it really so different? In a small sample of reports the individualized elements can dominate, but in comparisons of large samples the differences in details and peripherals fall away and recurrent similarities in core elements advance to the forefront. It is also useful to compare abduction reports with accounts of satanic ritual abuse for a sense of perspective. The published accounts of ritual abuse are truly idiosyncratic with diverse plots and only a few stereotypical motifs like chanting, black robes, and human sacrifice. Abduction accounts are striking in contrast for their purposeful, orderly structure and recurrence of complex content in similar positions within the story. Insofar as the character of the story tells us anything about its origins, satanic abuse accounts look a lot like personal fantasies on a theme. Abductions resist such ready categorization.

Some consideration is due as well to who tells the story. In 1987 I completed a study of about 300 abduction reports available in the literature up to 1985. Of that total, 145 reports contained enough information to allow me to compare them in detail, and out of this number 103 met a minimal standard for reliability. The remaining 42 cases did not meet this standard, meaning that at the superficial level of impressions the investigator saw reason to doubt the sincerity

or sanity of the witness. Such a rough distinction cannot guarantee that one group consists of all "fakes" and the other of all "real" abductions (whatever that means), but if there is any sort of phenomenon behind the stories, the reliable group is richer in accounts of that phenomenon than the unreliable group. Comparisons of the stories from the two groups are revealing: Members from the reliable group told stories of noteworthy consistency in sequence of events and descriptive imagery. Members from the unreliable group gave much more varied accounts with diverse aliens and all sorts of adventures (Bullard, 1987). The content of stories did not determine their category—that would stack the deck—yet notable differences separated the stories of reliable from unreliable abductees.

What this finding means for Clancy's sample is not so much determinate as cautionary. The undeniable fact that everybody now knows how to tell an abduction story clouds the issue of knowing who is or is not an abductee. People who suffer an episode of sleep paralysis understandably look for the cause of this frightening and disturbing experience. Alien abduction is the most familiar possibility of the day that matches some of the phenomenology of sleep paralysis, and victims can seize this solution as intellectually satisfying and, as a bonus, proof that the cause was external rather than evidence that they are crazy. The result is people who believe they are abductees even though they are not. We can imagine that these people, sincere as they are, contaminate the sample with stories that may not originate in the same way as the stories of true abductees, and manifest a psychological profile that may not be characteristic of abductees. Did the Harvard researchers test real abductees? The question is so hard to answer that it borders on the unfair, but in a small sample of subjects a few wrong people could throw off the results. Again such a speculation leads only to possibility and not accusation, but a possibility with consequences.

Both books are essential reading for anyone concerned with extraordinary experiential claims. McNally guides us through the labyrinth of memory research with lucid explanations for the workings and failures of a faculty we take for granted. His reminders of the fallibility of memory, of its ready capacity for sins of commission as well as sins of omission, deserve wide reading. Much error, confusion, and even tragedy has resulted when belief and political agendas create false memories, and he leaves a sober warning that even the most heartfelt memories may not be what they seem. Clancy amplifies this message for abductions with a keen but sympathetic anatomy of a major modern paranormal belief. She provides a delightful account of one researcher's journey through the culture of that belief, as well as the unexpected and sometimes wacky turns an academic career can take along the way. Her conclusion is a conventional one with such a mass of sound evidence to support it that no one can assert the reality of these claims without considering her argument. The age of innocence is over for abductions.

No one can easily accept so bizarre a tale as abduction by aliens. None of the requisite evidence has come forward: No otherworldly implant has fallen into

our hands, no missing-fetus case is documented, no surveillance camera has caught aliens hauling their nightly quota of human contraband. Research has shown how pieces of experience, culture, belief, and desire can blend together into a tissue of deceptive but realistic memories, and yet more remains to be explained. We have the striking accounts like that of Kary Mullis and multiple-witness cases to remind us that something strange still hovers about this subject. Whatever it is, the available conventional answers do not cover it. The answer need not be aliens but the problem is still intriguing, and a rush to judgment that throws out the whole mystery on account of a partial solution would be unfortunate. Occam's Razor may favor the Harvard researchers' conclusions, but it should not be turned to cut the throat of inquiry as long as we still have a mystery. Rumors of its demise have been greatly exaggerated. Abductions are kicking yet.

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Abducted: How People Come to Believe They Were Kidnapped by Aliens
by Susan A. Clancy. Harvard University Press, 2005. 179 pp. \$22.95 (hardcover). ISBN 0-674-01879-6.

Some years back, Carl Sagan wrote an article about UFO abductions for the Sunday newspaper insert magazine, *Parade*. This was in preparation for his next book, *The Demon Haunted World*. I had received a copy of the manuscript and I noticed a number of factual errors, not errors in interpretation but errors of truth. I carefully noted the problems and sent the manuscript back. When the article was published, all the factual errors were included, except for one very small one: Barney and Betty Hill did not say the aliens "slithered" as Sagan had originally written.

What would possess a scientist to allow for known factual errors in his publication? This is normally unthinkable in any scientific or even a responsible popular article. But this type of behavior is common in debunking and skeptical writings about the abduction phenomenon. When it comes to abductions, scientists become unscientific with speeds approaching that of light. Of course, abductions are not in the normal scientific milieu. They are so far out of the norm that it leads to a line of reasoning as follows: "It does not matter how I get to my Explanation. Doing careful research is a waste of my precious time. Everyone knows that UFO abductions cannot and do not exist. Therefore, even though a UFO fanatic out there might take issue with petty factual problems, I am not required to get everything right because my Explanation will, in the end, be correct." Thus, when it comes to abduction debunking, careful research and academic and/or scientific justification or rationale is not necessary. The ends justify the means.

In my forty years of UFO research, the last twenty of which I spent studying the abduction phenomenon, I have learned a simple evidence truism: All debunkers make one or more of three fundamental mistakes: They do not know the evidence, they ignore the evidence, or they distort the evidence. Any one of these errors would be catastrophic and perhaps even scientifically dishonest when writing about something of accepted scientific consequence. Leaving in mistakes is tantamount to ignoring or to distorting the evidence. Unfortunately, when it comes to abductions, all debunkers comply with the evidence truism. There are no exceptions.