
AUTHORS' RESPONSE

Not Just Another False Memory: Further Thoughts on the UFO Abduction Phenomenon

Leonard S. Newman

*Department of Psychology
University of Illinois, Chicago*

Roy F. Baumeister

*Department of Psychology
Case Western Reserve University*

It is traditional to begin responses in *Psychological Inquiry* by thanking the commentators. We want to be sure to do the same, especially given the topic of our target article. We began that article by noting that academic psychologists have historically been reluctant to convey the impression that fringe phenomena like unidentified flying object (UFO) abductions are even worthy of discussion. In his commentary, Hall—whose own extensive efforts to understand the abduction phenomenon we greatly respect—claims that reports of extraterrestrial encounters are so far beyond the pale of mainstream academic speculation that, “simply by studying [them], one risks ridicule and damage to one’s reputation.” Fortunately, the 12 insightful commentaries clearly demonstrate that not everyone is quite so timid. Again, we thank our colleagues for taking the time to respond to our ideas.

The goal of our target article was to propose an explanation for why many people who otherwise seem sane and honest have come to believe that they have been abducted by extraterrestrials. We organized the article in terms of two basic questions. First, we reviewed literature pertaining to the most obvious question (Why would people claim to remember things that did not actually happen to them?) and discussed it in the context of what we know about UFO abduction reports. That part of our discussion treated abduction accounts as just another kind of false memory that could be created by the same processes that give rise to other false memories. The second part of the article was devoted to answering a related but different question: Why would people claim to remember this in particular? Stories about encounters with extraterrestrials could potentially take many forms, but, in reality, most stories share important features. People constructing alien-encounter memories typically tell stories about

themselves in which they are humiliated, powerless, and in pain, and we argued that this is not an incidental aspect of the UFO abduction phenomenon.

Despite the diversity of ideas expressed in the commentaries, there are at least some general points of agreement. First, no commentator questions the importance of addressing this topic. We suspect that all would agree with Banaji and Kihlstrom, who state that UFO abduction reports

should not merely be dismissed as evidence of individual credulity or lunacy, of mass hysteria, or of our society’s increasing antiscientific preoccupation with the supernatural and the paranormal. They are interesting social-psychological phenomena, ... and demystifying them ought to be the business of social psychologists.

We also think that the commentaries were notable for the tone of “compassion and careful evaluation” that McLeod, Corbisier, and Mack remind us should be maintained when dealing with or discussing abductees.

As Schooler (1994) recently noted, “there have now been innumerable demonstrations that individuals can come to vividly remember things that they never in fact experienced” (p. 463). The writers of at least two commentaries (Hall; McLeod et al.) are reluctant to discount the reality—or at least, “alternate reality”—of UFO abduction experiences. For the most part, though, the commentators do not argue with the idea that pseudomemories in general and UFO abduction memories in particular can be unintentionally fabricated. In addition, most seem to agree that this can happen through the processes we described in the first half of the target article. (See also Spanos, Burgess, & Burgess, 1994, for a complementary account.) Although some

abduction claims might in fact be “outright hoaxes, the products of deranged minds, or attempts to garner attention” (Strube), most are probably “neither literally true, conscious fabrications nor a reflection of obvious psychopathology” (Lynn & Kirsch). Instead, abduction narratives are most likely pseudomemories arising from an interaction between specific individual differences (in personality, knowledge, beliefs) and situational factors (e.g., hypnotic inductions, leading questions, support from authority figures). In sum, none of the commentators would fall prey to the error described by Garry, Loftus, and Brown (1994) and assume that, “if it feels like a real memory and sounds like a real memory, then it’s a real memory” (p. 449).

In the second half of the target article, we reviewed evidence in support of our hypothesis—and it is certainly only a hypothesis, not a proven empirical conclusion—that abduction stories derive from the same motivational roots that drive thousands of other people to desire pain, helplessness, and embarrassment in another context—namely, sexual masochism. Masochism appears to involve a brief release from the modern burden of selfhood and its emphasis on dignity and autonomy. Baumeister (1991a) discussed several possible escapes from self, including alcohol consumption, binge eating, meditation, and other spiritual exercises. Some people seem to find it easy to forget themselves, and, for them, merely working in the garden or watching a movie might be enough. Other people require more powerful stimuli. Sexual masochism appears to be one of the most powerful, and so it is well suited to people who might find it extra hard to shed their social identities.

The application to UFO abduction memories is as follows. Many people (especially in modern Western societies) presumably feel some of the stress of selfhood and develop a longing to escape from it occasionally. When circumstances set in motion the cognitive mechanisms to produce a spurious memory, these motivations shape it into the forms associated with masochistic loss of self—pain, loss of control, and humiliation. One is treated as a mere object, divorced from the complex of role identities that most people have. In sum, we argued that the similarities between UFO abduction memories and masochistic fantasies are not coincidental.

Some commentators find the proposed link between abduction and masochism to be “creative” (Banaji & Kihlstrom), whereas Hull thinks it is only “entertaining.” Hull also believes that our ideas are simply “not empirically verifiable,” whereas Bowers and Eastwood assert that the “theory has to be subjected to much harsher empirical challenges.” Other commentators echo the latter opinion, stating that “much more supportive evidence will be needed” (Banaji & Kihlstrom) or that “much more empirical verification will be necessary” (Strube). Strube goes further and proposes an interest-

ing framework that might be adopted by future researchers seeking to perform a more focused test of our hypotheses (see also Bowers & Eastwood’s commentary). As Strube admits, his proposals for both prospective and retrospective research illustrate how daunting this task would be.

Although we cannot address every issue raised by the commentaries, critical comments fall into three major categories. Some commentators raise questions about our interpretation and/or presentation of the available evidence for our model. Others call for a clarification of the escape-from-self motive that is so central to our account. Finally, some commentators, regardless of what they think about the possibility that people might be motivated to escape the self, question the relevance of this idea to the UFO abduction phenomenon. In sum, questions are raised about the evidence, the theory, and the application of the theory to the evidence.

The Evidence

Hypnosis

The role of hypnosis in the creation of abduction memories. Most abduction stories are told by people who have been hypnotized. We claimed that this is a reason to be skeptical about the literal reality of UFO abductions, and we supported this argument with a discussion of the pitfalls of hypnosis as a procedure for eliciting accurate autobiographical memories. Several commentators take issue with the role we assigned to hypnosis in the UFO abduction phenomenon. Some believe we put too much emphasis on the relative number of cases recalled with or without the use of hypnosis. Other commentators argue instead that we did not place enough emphasis on this—especially on the fact that several memories are recovered or constructed without hypnosis. The former group (Bowers & Eastwood, Lynn & Kirsch) emphasize that false memories can be implanted in a variety of ways without any formal hypnotic induction—hence, there is no need to assign hypnosis so central a role in the creation of abduction accounts. Paradoxically, according to the second group of commentators (Hall; McLeod et al.), the fact that people who have not been hypnotized sometimes report abductions argues instead for the reality of the abductions.

Our reason for claiming that hypnosis plays a major role in the genesis of abduction accounts was simple—it does. The results of a survey that appeared after the completion of our target article also revealed that “a large number of abductees needs hypnotic help to recover their most extraordinary memories, while a smaller number recovers some memories without this assistance, and the smallest recalls the entire experience spontaneously” (Bullard, 1994a, p. 575). At the same

time, it is clear that hypnosis is not a necessary condition for the creation of false memories (see, especially, the commentary by Clark & Loftus). In fact, the "Recall Without Hypnosis" section of the target article was devoted to a discussion of this issue.

To restate our argument: Hypnosis is not a necessary precondition for the construction of an abduction account, but it facilitates confabulation of such a memory. Lynn and Kirsch provide an admirably succinct summary of the conditions that tend to elicit false memories. We believe that most if not all of the commentators would agree with Lynn and Kirsch's claim that a procedure that promotes the creation of pseudomemories

- (a) encourages fantasy and imagination, (b) is often conducted in a context of assumed accuracy of exhumed memories, which invites participants to adopt a lax standard for distinguishing fantasy and reality, and (c) encourages participants to report more information independent of recall accuracy.

We also believe most would agree that hypnotic inductions of the kind used by UFO abduction investigators generally have all of those features.

It is not surprising, then, that Bullard (1994a) concluded that UFO abduction investigators who use hypnosis "recover far more details than non-users" (p. 613). The data in Bullard's (1989) article—cited by Hall and McLeod et al. in their commentaries—also support this conclusion. Bullard's (1989) Table 2 shows that, in six of seven content categories (order of events, appearance of craft, characteristics of the beings, examination, communication with beings, and mental/physical effects), prototypical details of the abduction script appear more often when hypnosis is used. The sole exception is the low-frequency "otherworld" category, which involves seeing the beings' home planet. (An eighth category, "aftereffects," involves what people say occurs after abduction and is irrelevant to the question of whether people produce similar narratives of the abduction episode itself with or without hypnosis.) Bullard (1989) declared that the differences were "surprisingly small" (p. 18) and concluded that the details of UFO abduction memories are independent of the use of hypnosis. Unfortunately, the overall effect was not tested statistically.

Lynn and Kirsch not only agree that false memories are possible without hypnosis, but they also argue with the idea that hypnosis leaves people especially vulnerable to and especially confident in false memories. Orne, Whitehouse, Orne, and Dinges assert instead that hypnosis does in fact enhance the number of erroneous memories and people's confidence in those memories. In contrast to Lynn and Kirsch, Orne et al. believe that hypnotic memory distortions "are a product of the process of hypnosis per se rather than contextually elicited solely by social-psychological factors." Discus-

sion of the evidence bearing on these issues is beyond the scope of this response; in addition, we strongly doubt that we would be able to resolve a disagreement between investigators who happen to be the people who have taught us most of what we know about hypnosis. We do, however, regret our occasional reference to the mediating role of what we called the *hypnotic state*. Lynn and Kirsch remind us that there are no reliable markers of such a state, and, if used at all, the phrase should be "nothing more than a shorthand way of saying that someone is responding to suggestions made following a hypnotic induction." This, in fact, is all we meant by *hypnotic state*.

The point to emphasize is that, even if it is true that 30% of all abductees have recalled their experiences without the help of hypnosis—a statistic emphasized by Hall and McLeod et al.—this would not rule out the confabulation of UFO abduction memories. Hypnosis arguably makes confabulation more likely, but "the power of suggestion has a power all its own" (Garry & Loftus, 1994, p. 364). This is especially true when someone believes in the possibility of an imagined experience and even more so when the person guiding the memory reconstruction also believes in the possibility (see Orne et al.'s commentary; also see Spanos et al., 1994).

Hypnotic procedures as practiced by abduction investigators. Hall and McLeod et al. claim that, even if hypnosis has its pitfalls, we exaggerated the extent to which abduction researchers use the technique poorly and thereby shape the stories people tell. Hall and McLeod et al. point out that abduction investigators have become increasingly aware of the risks involved when using hypnosis (see Pritchard, Pritchard, Mack, Kasey, & Yapp, 1994). We concede that our discussion overstated the extent to which UFO investigators blindly believe in the accuracy of memories retrieved with hypnotic procedures.

Abduction researchers thus tend to be aware that hypnosis can be a dangerous investigative tool. But is there any evidence that this awareness affects their behavior? Bullard's (1989) study is commonly cited in support of the claim that abduction investigators are in fact cautious and conservative in their use of hypnosis. Oddly enough, though, Bullard's review of the skills and practices of hypnotists who have probed for UFO abductions yielded a decidedly dismal picture (see Bullard's Table 1). Bullard ultimately declared that "investigators use hypnosis with better care than we might fear" and make a "conscientious effort to achieve valid results" (p. 16), but it is unclear how he reached this conclusion.

As we also noted, some observers have claimed that many of the details of abductees' accounts covary with the particular investigators involved in eliciting them

(Klass, 1988; see also commentary by Clark & Loftus). The evidence for this claim is admittedly anecdotal, but McLeod et al.'s commentary provides more evidence of this kind. McLeod et al. claim that their work with abductees reveals that "sexual stimulation and imagery are not central, defining elements of abduction experiences." But Jacobs (1992), in *Secret Life: Firsthand Accounts of UFO Abductions*, a book based on Jacobs's extensive work with abductees, says instead that sexual activity is "an integral part of the abduction experience" (p. 187). This discrepancy suggests that, although certain core details of the abduction narrative do in fact seem to consistently emerge, investigators and hypnotists might also inadvertently help fill in some of the details. Hall cites Bullard's (1989) work to argue the contrary. But, more recently, after a comparison of cases compiled by 13 investigators, Bullard (1994a) concluded: "Do investigators make a difference in the abduction stories they receive, or at least in the stories they report for this survey? The answer must be a qualified yes" (p. 613).

Finally, Hall suggests that investigators' contamination of abductees' memories has perhaps been exaggerated because "there are many cases in which the witness strongly resists deliberate efforts by the hypnotist to lead the witness." In other words, the argument is as follows: Because the most obvious leading questions tend to be resisted by abductees, more subtle ones (or those that less strongly demand a specific response) are also unlikely to affect them. Unfortunately, the opposite might be true. Obvious leading questions might sensitize people to the possibility that the images that subsequently come to mind are not in fact derived from actual experiences (see the "Beliefs and Expectations of the Hypnotist" section in the target article). We share Ross and Newby's assumption that people actively evaluate the accuracy of their memories. Therefore, blatant pressure might actually be more likely to lead people to discount the veridicality of an actual memory than to create a false memory. In general, people attempt to correct for the biasing effects of blatant attempts to influence their mental processes (Jacoby, Kelley, Brown, & Jasechko, 1989; Martin & Achee, 1992).

Fantasy Proneness

Lynn and Kirsch (see also commentaries by Hall; McLeod et al.) argue that a fantasy-prone personality is not necessarily "a final common pathway to UFO experiences in all or perhaps even the majority of cases." We agree. As was the case with hypnotic procedures, we meant to argue only that fantasy proneness might be a significant predisposing factor. Fantasy-prone people might be especially vulnerable to the

circumstances that lead people to construct autobiographical UFO abduction narratives.

To review, the fantasy-prone personality is characterized by an extensive and vivid fantasy life and by difficulty distinguishing between fantasy and reality (Lynn & Rhue, 1988; Wilson & Barber, 1983). In general, the fantasy-prone personality is not associated with markedly high levels of psychopathology (cf. Rauschenberger & Lynn, 1995) but is notable in several other ways. For example, fantasy proneness correlates with hypnotizability (Silva & Kirsch, 1992), covaries with the extent to which people report and believe in paranormal experiences (Council & Huff, 1990; Irwin, 1990), and seems to be associated with reports of childhood abuse (Lynn & Rhue, 1988; see also Bryant, 1995).

There is evidence that abductees have similar characteristics. Direct evidence of hypnotizability levels is scant, but, in a recent survey of UFO abduction investigators, Bullard (1994a) concluded that the sample of abductees with whom the investigators worked "appears especially rich in people of high susceptibility to hypnosis, and these same people manifest considerable fluency of thought while under hypnotic influence" (p. 575). Abductees also tend to hold quite a number of paranormal and unusual beliefs in addition to those involving extraterrestrials (Parnell & Sprinkle, 1990; Ring & Rosing, 1990). Finally, at least one investigation (Ring & Rosing, 1990) found that abductees reported higher levels of child abuse than did control subjects.

More than one commentator points out that these observations do not constitute compelling evidence that UFO abductees tend to be fantasy-prone personalities. We could not and would not argue with that point, but we would reemphasize (a) that false memories have a tendency to emerge when people engage in protracted fantasizing and adopt a lax standard for distinguishing fantasy from reality (see earlier discussion), (b) that certain people (fantasy-prone people) are predisposed to engage in imaginative activities of that sort, and (c) that those people are therefore more prone than others to create pseudomemories of any kind. In fact, Spanos, Menary, Gabora, DuBreuil, and Dewhirst (1991) found that participants in their study who scored higher on measures of fantasy proneness were more likely than others to report past lives when they were encouraged to do so following a hypnotic regression.

Of course, the possibility remains that abduction stories are accounts of actual extraterrestrial encounters. If we reject that hypothesis, however, we are left with the task of seeking out the situational and dispositional factors that might encourage the construction of a false abduction memory. In light of the evidence just reviewed, fantasy proneness seems to be an excellent candidate for being one of the dispositional factors.

We thus hypothesized that abductees might be characterized by relatively high levels of fantasy proneness. We also acknowledged that there is as yet no good empirical evidence in support of this hypothesis. The one study that attempted to test the hypothesis with valid and reliable assessment tools (Rodeghier, Goodpaster, & Blatterbauer, 1991) failed to support it. The sample size in the Rodeghier et al. study, however, was rather small ($n = 27$). This is typical of studies of the personality characteristics of abductees, which boast n s of 23 (Stone-Carmen, 1994), 12 (Jacobson & Bruno, 1994), 9 (Bloecher, Clamar, & Hopkins, 1985), and 8 (Johnson, 1994). In sum, the fantasy-proneness hypothesis is still just that—a hypothesis. Researchers testing it in the future should not only recruit larger samples but should also heed Lynn and Rhue's (1988) cautions on administration of the measures. Respondents are undoubtedly aware that many of the markers of fantasy proneness could possibly be construed as indicating deviance or psychopathology. Therefore, Lynn and Rhue warned, fantasy-proneness scores might be depressed in situations that trigger socially desirable responding. A study explicitly framed as one testing for psychopathology among abductees might be just such a situation.¹

Finally, we must address one more issue that might be seen as casting a shadow over our discussion in this section. Although we have attached considerable significance to the correlation between fantasy proneness and hypnotizability, Lynn and Kirsch say instead that the relation is "quite small, with direct tests of the proposed links yielding negative or unimpressive results." This comment took us by surprise, because our claim that these two variables are significantly correlated is actually based largely on the work of Lynn and Kirsch. Lynn and Rhue (1988) did in fact say that fantasy proneness is not a "perfect predictor" of hypnotizability, and they noted that other factors (like expectancies for being able to experience hypnotic responses) significantly affect hypnotizability. But, Lynn and Rhue also stated that "subjects classified as fantasizers were likely to score as high hypnotizables—nearly 80% of fantasizers scored in the high-susceptible range" (p. 37). Similarly, Silva and Kirsch (1992) found that "response expectancy and fantasy-proneness are robust predictors of hypnotizability. Furthermore, despite the correlation between these predictor variables, each of them contributed independently to the prediction of hypnotic responsiveness" (p. 851). These correlations were in the $r = .30+$ range.

¹Hall cites Spanos, Cross, Dickson, and DuBreuil's (1993) study as evidence that there is no relation between fantasy proneness and the likelihood of reporting a UFO abduction. Earlier in the commentary, however, Hall correctly points out that, although Spanos et al.'s subjects reported UFO-related experiences, there might not have been any abductees in the sample. (See also Footnote 4 in the target article.)

Lynn and Kirsch are apparently evaluating the strength of the relation between the two variables in the context of early theorizing about the nature of fantasy proneness (e.g., Wilson & Barber, 1983). When the construct was first introduced, suggestions were made that perhaps there was a perfect correspondence between fantasy proneness and high hypnotizability. Relative to a perfect correlation, an r of .3 or so is certainly disappointing. We, however, are evaluating the association between fantasy proneness and hypnotizability in the context of the kinds of correlational relations more generally found between individual-difference variables and behavioral outcomes. From that perspective, it is reasonable to assert that there is a significant (in both senses of the word) correlation between fantasy proneness and hypnotizability.²

Cultural Differences

If UFO abduction narratives express escape-from-self themes, then abductees should be disproportionately from cultures that endorse individuality and autonomy as prescriptive norms. In fact, the available evidence (e.g., Bullard, 1987a; Randles, 1988) suggests that abduction reports have been collected primarily in Western or Westernized countries, especially the United States and the United Kingdom. Ritualized masochistic behavior also seems to be concentrated in individualistic societies (Baumeister, 1989).

Two commentators (Hall; McLeod et al.) claim instead that UFO abductions are no longer culture dependent, and it is certainly true that isolated abduction memories have now been reported all over the world. However, we stand by our earlier conclusions about the striking international distribution of abduction reports. To support his claim that UFO abduction has become a truly global phenomenon, Hall cites Bullard's (1994b) paper from the proceedings of the Abduction Study Conference. But Bullard, discussing his updated and much expanded archive of abduction cases, stated:

The geographical pattern of the first catalogue repeats itself with the second, with 276 cases from the United States and 24 from Canada, so two-thirds of the reports come from North America. The English-speaking world accounts for much of the remainder. (p. 45)

Also telling is Moura's (1994) paper from the same conference. Moura reported that, although Brazil ac-

²Orne et al. argue in their commentary that the whole issue might be moot. They review research indicating that hypnotizability is a meaningful dimension when predicting some—especially behavioral—responses to hypnotic inductions but not when predicting memory creation and modification in particular.

counts for 7.8% of the world's UFO sightings (second only to 11.39% from the United States), "the number of reported abductions is extremely small" (p. 189). Interestingly, Brazil is generally recognized to be dominated by collectivist rather than individualistic values. In fact, Brazil is the first example of a collectivist culture mentioned in Triandis's (1995) book on cross-cultural differences in thought and behavior (p. 2). In sum, Brazil is (a) a country in which abduction reports seem very uncommon relative to the general interest in interplanetary spacecraft and (b) also a country notable for being culturally distinct from the individualistic countries in which UFO abduction reports seem to be concentrated.³

We do, however, acknowledge the absence of data necessary for more precise cross-cultural comparisons. In addition, we recognize that other variables (e.g., "differences in communication systems and exposure to abduction stories"; Hull) might play a role in the international pattern that has been observed. As cogently stated by Hufford (1994), "obstacles of language, the stigmatization of certain experiences or interpretations, and the effects of the theoretical stance of local officials (government, academic, and religious) toward particular topics, make the determination of cross-cultural prevalence an extremely difficult task" (p. 352).

Sources

Material written about UFO-related phenomena might be more easily found on the magazine rack of one's local convenience store than in most university libraries. A search of mainstream journals such as *Psychological Review* and *Psychological Bulletin* for previous reviews of extraterrestrial encounter claims will turn up next to nothing (or nothing at all). Nonetheless, Arndt and Greenberg are not happy with the nature of many of our source materials. But, given the vast number of UFO-related magazines, newsletters, and trade books available to anyone interested in such material, we believe we were in fact conservative in our selection of sources. And, although there are several references to articles appearing in periodicals devoted entirely to UFO-related phenomena, these were mostly from the *Journal of UFO Studies* and the *International UFO Reporter*, two of the more (arguably) level-headed publications.

Arndt and Greenberg further suggest that whatever plausibility our arguments have can be attributed to our selective collection, interpretation, and integration of

the available evidence. We certainly agree that pre-existing beliefs can bias all three of those processes. To argue otherwise would be to contradict our own published conclusions on the nature of inference making and hypothesis testing (Baumeister & Newman, 1994b; see also Kunda, 1990; Pyszczynski & Greenberg, 1987). Advocates of a particular theory (see Peterson, 1991) are especially vulnerable to confirmatory biases.

One way to give any such biases a chance to be corrected is to subject one's ideas to peer review and commentary—in *Psychological Inquiry*, for example. Another is to select a specific body of evidence and set decision rules and criteria for evaluating that evidence in advance (Baumeister & Newman, 1994b). Of course, this is what we attempted to do with our content analyses of the abduction cases collected by Bullard (1987b; cf. Hull's comments).

Escaping the Self

Much of the evidence we reviewed was meant to support one of our central arguments—that abduction stories are essentially escape-from-self fantasies. Arndt and Greenberg, however, believe that the escape-from-self concept lacks clarity. As they put it,

What are [Newman & Baumeister] suggesting people are trying to escape from? At times in the target article, it seems to be self-awareness; at other times, it is one's identity; at other times, it is one's sense of control, one's decision-making responsibility, one's concerns with self-worth, or one's problems. These are not all the same.

It is obvious that meaningful distinctions can be made among these escapes. It is less obvious, however, that they are all functionally distinct. Although an extended discussion of these issues cannot be presented here, some clarification is necessary. Our central assumption is that people generally feel pressured to be liked, to be respected, and to be in control of their lives (see Baumeister, 1991a). In other words, these are important criteria or standards people use both to evaluate themselves and to plan or adjust their behavior (cf. E. T. Higgins, 1991). What people want to escape from is the self that constantly has to strive to meet these standards—and the self that inevitably misses the mark. More directly, people seek to escape (a) the bad feelings that result from failing to meet the self's needs and (b) the constant pressure to redouble one's efforts to become a more ideal person.

Masochism is an effective if extreme way to accomplish such an escape (Baumeister, 1989). The pain reduces meaningful and abstract thought. This makes it less likely that people can evaluate themselves or self-

³Moura's (1994, p. 189) explanation of this anomaly is different from ours. Moura attributes the lack of abductions in Brazil to the "limited use of hypnotic regression" in that country.

regulate their behavior in terms of their usual standards. The control that one relinquishes relieves one of the need to even attempt such self-regulation. At the same time, it reduces one's responsibility for not being a dignified and self-determining person; excuses of all kinds have been shown to ameliorate the negative self-evaluation that typically follows from failure or disgrace (Snyder & R. L. Higgins, 1988). Finally, the degrading and humiliating aspects of masochistic behavior ensure that a person is so far from meeting the normal standards for esteem and dignity that those standards become moot if they are even considered at all. In general, when people feel they are unlikely to make adequate progress toward a goal, they withdraw effort and cease attempts to attain that goal (Carver & Scheier, 1981; Duval, Duval, & Mulilis, 1992). Baumeister (1991a) further proposed that the humiliation a masochist experiences so transforms the person that the "self" ordinarily linked to and evaluated according to chronic needs for esteem, dignity, and control essentially ceases to exist as a meaningful reference point.

Arndt and Greenberg highlight the fact that "escape" in this context is a complex and multifaceted phenomenon. The procedures we have described, however, all serve the goal of escaping the same unpleasant psychological situation.

As already noted here, masochism is not the only possible method for escaping the self. For example, intense exercise and alcohol consumption can both blot out higher level thinking, and so they share some of the features of masochistic behavior. Masochism represents a more extreme and multipronged assault on ordinary self-awareness. And, given the many similarities between masochistic fantasies and abduction accounts (and between masochists and abductees), we hypothesized that abduction stories are essentially extreme escape-from-self fantasies.

On the other hand, although a story can represent a need, the stories people tell do not necessarily fulfill their needs. Thus, we did not state that a "claimed abduction experience" (Strube) or "the act of remembering" masochistic sex (Hull) could itself lead to an escape from self, even though our hypothesis was restated in that way by some commentators (see similar comments by Arndt & Greenberg). Stories might sometimes be able to satisfy the needs they represent. For example, a story shaped by a person's need for self-worth (Baumeister, 1991b) might in fact help satisfy that need if the story is communicated to and believed by others. But it is surely not the case that all stories can be effective in this way. Masochistic fantasies are fulfillment stories—that is, stories that describe desirable and even idealized subjective states. Such stories can represent fulfillment, but it is not clear that they are always fulfilling themselves (see Baumeister & Newman, 1994a). The same is true for

abduction accounts. They represent an idealized state in which the self is stripped away, but it is not clear how telling (or even believing) such a story about the self would allow one to achieve that state.

Abduction Memories As Escape-From-Self Fantasies

As already noted, some commentators argue less with our review of the evidence or our theoretical framework than with the claim that the abduction phenomenon has anything to do with escaping the self. The following section addresses some of these concerns.

Is Analyzing the Motivational Themes of the Stories Gratuitous?

Arndt and Greenberg believe that the first half of the target article provides "a conceptually compelling explanation for false memories of alien abductions that seems to fit what is known about the phenomenon" but that we "might have been best served by finishing at this point." Other commentators (e.g., Bowers & Eastwood, Lynn & Kirsch) also seem to believe that the earlier material—in which we applied what is known about the creation of false memories in general to the creation of abduction memories in particular—covered everything we need to know about the genesis of abduction memories. In contrast, these commentators seem to believe that the second half of the target article—in which we proposed an explanation for why a person might want to believe that he or she had experienced something so unpleasant and degrading—was perhaps gratuitous. In other words, they raise the possibility that people who believe they might have had extraterrestrial encounters produce pseudomemories that are similar to classic abduction accounts simply because those classic abduction accounts are now so well known.

Lynn and Pezzo's (1994) interesting study (described by Lynn & Kirsch) seems to provide evidence for this view. Lynn and Pezzo found that even non-hypnotized subjects—when asked to tell a story about a hypothetical period of missing time that immediately followed the appearance of mysterious lights in the sky—were often able to provide accounts quite similar to classic UFO abductions (especially when they were cued to do so). This study, we believe, is valuable in that it clearly showed how readily people will incorporate contextual cues into the stories they tell about alien contacts. Less compelling to us is the study's demonstration that "alien contact narratives are widely available to many college students" (Lynn & Kirsch). Presumably, a multiple-choice quiz administered to participants could have yielded the same infor-

mation. We would have been much more surprised if college students did *not* reveal a great deal of knowledge about UFO abductions. But, why have so many people told the classic abduction story that—as Clark and Loftus state—it “has by now raised itself alongside the famous restaurant script . . . as a well-known activity whose actions and order are well known”?

One obvious answer is that the whole phenomenon can be traced to one or two seminal incidents, such as the alleged abductions of Travis Walton (see Klass, 1988) or Betty and Barney Hill (see Fuller, 1966). It is important, though, to be explicit about an implication of this argument. To argue that mass media versions of alien abduction are sufficient to explain the form that people’s spurious memories take implies that any such story could have eventually taken hold. Presumably, if someone widely publicized a report about people being snatched by aliens who gave them magical powers so that they could zoom off to distant galaxies to help defeat evil forces, then this theme would later show up in thousands of other abduction narratives. Experiences of this kind would probably be easy to elaborate on, as they certainly fit many popular science-fiction and video-game themes. So, if a few mass media hints were all that were necessary to shape such spurious memories, abductees might be telling stories of this kind—which, unlike the current crop of abduction stories, are pleasant, self-aggrandizing, and empowering.⁴

Again, we could ignore the motivational aspect of our explanation if we believed that abductees are just passive receptacles for other people’s stories. We cannot, of course, rule out this possibility. Therefore, we cannot rule out the possibility that, but for a chance event here and there, abduction stories today might not involve pain, subjugation, and humiliation but instead might feature adventures with an alien named Mork with a remarkable sense of humor.

We doubt that this is so. Modern Western culture has placed a heavy burden of demands on the self, including expectations to be capable, autonomous, attractive, and in control at all times (see Baumeister, 1987). The constant demand and sense of vulnerability create a form of stress, and, like other forms of stress, it can be greatly reduced by occasional breaks or safe periods. The desire for breaks of this kind will express itself in people’s actual and imagined behaviors, and extreme desires of this kind might express themselves in extreme behaviors and fantasies. UFO abduction accounts might be one expression of a need for an extreme escape from what some people perceive to be the never-ending pressure to be attractive, dignified, and autonomous.

⁴Banaji and Kihlstrom, however, would predict that the experience would at least have to be an unpleasant one, so as to resemble the alleged affects of the experiences.

We thus agree with Banaji and Kihlstrom, who suspect that a full explanation of the abduction phenomenon will involve “the interplay of social, personality, and cultural factors” (although Banaji & Kihlstrom are not convinced that the factors we identified are the key ones). Spence is also sympathetic with this perspective and argues that alien contact stories have to “be read as projections of the cultural and political conditions obtaining at the time” they are told. Spence’s analysis differs a bit from ours, however, in its emphasis on the appeal of replacing the uncertainty, unpredictability, and ambiguity of everyday life in the modern world with the hard fact of an abduction. (See also Tavis’s, 1993, analysis of sexual abuse memories as figurative metaphors dramatizing and explaining the victimization and powerlessness felt by many women.)

Needless to say, an appeal to theoretical taste is not a very compelling way to support our analysis of the motivational roots of abduction accounts. A significant portion of our target article, however, was devoted to supporting our position by showing the many similarities between abduction narratives and another well-known expression of the need to escape the self—masochistic activity and fantasy. Clearly, escape-from-self motives are not needed for the construction of false memories, but certain aspects of abduction accounts seem to us to cry out for such an interpretation. Some commentators, however, question the appropriateness of that interpretation, and it is to some of their concerns that we now turn.

Escape-From-Self Themes in Abduction Stories

Of course they have no control. In arguing that UFO abduction memories might be constructed to satisfy an underlying motivation to escape from burdensome demands on the self, we highlighted the recurring theme of giving up, losing, and generally lacking control during the events purported to make up the typical abduction experience. Needless to say, noting that a person would not be in control during such an experience would hardly count as an exciting observation. In fact, Arndt and Greenberg note that this aspect of the abduction narrative is simply “logical”, and so loss-of-control themes are not worth pointing out or discussing.

In contrast, it is precisely because loss of control is such a logical aspect of the abduction experience that the constant explicit reference to this fact by abductees is noteworthy. As formalized by students of verbal communication (e.g., Grice, 1975; E. T. Higgins, 1981; see also Schwarz, Strack, Hilton, & Naderer, 1991), a basic rule for communication is what has been called the “maxim of quantity.” Just as one should say enough to be understood, one is also expected not to provide

too much superfluous information. For example, an abductee telling an investigator that he or she had walked over to an examination table "using my feet and legs" would be violating this rule. (Of course, this would not be the case if the abductee instead "floated" over to the table.)

When people violate this or any other rule of communication—as abductees seem to do when they repeatedly make what Arndt and Greenberg would consider gratuitous observations along the lines of "I just have no control," "I'm totally out of control," and "They have control"—we might infer one of two things. Either these people do not know the rule, or they are not in fact violating the rule—that is, they are telling us something meaningful. Perhaps abductees should simply be scolded for violating the rules of communication in their accounts by pointlessly emphasizing their loss of control. We suspect, however, that our understanding of the UFO abduction phenomenon will be hindered unless we listen to the abductees and let them tell us what they think the experience is all about.

Degrees of control. McLeod et al. argue that alien abductions differ from masochistic experiences in that masochists actually give up control only to a limited degree, whereas abductees lose control to a more extreme degree. To resolve this seeming discrepancy, it is necessary to note that, although actual masochistic experiences typically put some limits on loss of control, the fantasies go much further. The actual experiences are structured to serve the fantasy of more complete loss of control. Masochists are people who typically exert a great deal of control in their lives. Their sex games and fantasies involve giving up this control, and this is what makes those activities and fantasies escapes. The fantasy is presumably fueled by a desire for a thoroughgoing loss of control (i.e., just as thorough as is reported by the abductees). Actual experiences do often remain a pale imitation, but that is to be expected for both psychological and pragmatic reasons. Such reasons do not apply to the motivated construction of a fantasy or to the motivated construction of a spurious memory. If people could act out a fantasy of being abducted by aliens, probably they would retain some degree of control, just as masochists do.

Is masochistic imagery actually infrequent?

Two commentaries (Arndt & Greenberg; Hull) argue that our analysis of sex differences in abduction reports is notable primarily for revealing the low frequency of masochistic imagery in UFO abduction narratives. The calculations these commentators present in support of this argument are accurate, but it is not reasonable to conclude from them that the actual base-rates are so low. In our target article, we unfortunately did not clearly emphasize the great variability in length and

detail among the stories published by Bullard (1987b). Some go on for many pages; others read like this:

A flash of light while the witness, an electronics worker, was driving at 6 p.m., led to a period of unconsciousness, but later that night he recalled in flashbacks that five beings came to his car and pushed down the window, then examined him and walked him through an unusual environment. His next conscious memory was of sitting by the road nowhere near his car. His clothes were in disarray, with his shoes untied and shirt buttoned improperly. At first his memory was so impaired that he could not remember the name of his wife or his phone number. (Bullard, 1987b, Case 97)

Needless to say, this story (and others like it) were not coded for display, pain, or oral humiliation even though those might have been prominent features of the experience. We simply do not know, and this is why we emphasized the comparisons and not the base-rates. In sum, given the impoverished nature of many of the stories, those base-rates would almost certainly have been underestimated.

Metatheoretical Issues

Time for a Paradigm Shift?

We are pleased that Dr. John Mack and his colleagues agreed to contribute a commentary to this issue. As Wolcott (1995) wrote, Mack is viewed by many as "the magnet, the rebel visionary, the throbbing brains" (p. 75) of the alien abduction research community. Not surprisingly, then, there is much to say about the McLeod et al. commentary, and we try to do so at various points in this response. We find some of their arguments, however, quite difficult to address. For example, McLeod et al. claim that "abduction reports consist of subtleties that might not easily or quickly be resolved into the duality of reality versus nonreality." Elsewhere, we are told that we should "encourage experiencers to refrain from placing their experiences into restrictive cognitive boxes such as real-unreal, objective-subjective, physical-spiritual, positive-negative, or belief-disbelief." This kind of viewpoint also dominates Mack's other writing on the topic. Mack (1994) suggested that the UFO abduction phenomenon implies that "our use of familiar words like 'happening,' 'occurred,' and 'real' will themselves have to be thought of differently, less literally perhaps" (p. 405). Mack was also quoted as saying that "the whole notion of 'extraterrestrial' is a notion of dualistic thinking anyway. *We* are the extraterrestrial in a sense: our psyches are not confined to earth" (Bryan, 1995, p. 275). Mack's promotion of such a perspective perhaps

explains how participants at a conference he helped organize a few years ago could spend time arguing over whether abductions could be taken seriously when the abductees involved were observed by other people to be sleeping or in a trancelike state while they were supposedly interacting with aliens (Pritchard et al., 1994, p. 195)

This kind of approach to the issue is arguably impervious to any sort of critical analysis, and perhaps we should dismiss Mack's comments by calling them "thick chunks of guruspeak," as others have done (Wolcott, 1995). To do so, however, would be to miss McLeod et al.'s essential point, which is their belief that any useful understanding of the UFO abduction phenomenon will require nothing less than a basic paradigm shift in the physical and behavioral sciences. According to Kuhn (1962), when established theories prove incapable of explaining anomalous observations (e.g., astronomical observations or perhaps UFO abduction memories), a field might eventually enter a state of crisis. This state of affairs indicates that "an occasion for retooling has arrived" (Kuhn, 1962, p. 76) and is what leads to radical shifts in a field's basic assumptions—that is, a paradigm shift. But Kuhn also showed that, although crises are necessary for paradigm shifts, they are not sufficient. What is also needed is an alternate paradigm to take the old one's place.

If McLeod et al. believe that "the abduction phenomenon might not be reducible to psychological processes with which we are now familiar," then maybe they are right to call for a paradigm shift. And, given that one will not occur without an alternative theory, they are right to begin articulating their own radical perspective on reality. For reasons discussed at length in our target article, we are not ready to agree that a "retooling" of this sort is needed just yet.

Unconscious Motives

As emphasized by Bowers and Eastwood, the processes we hypothesize might lead to the construction of abduction memories are not generally open to introspective awareness. As Bowers and Eastwood put it, "the intrapsychic forces operating on UFO abductees are at least to some extent unconscious. That is, the masochistic need to lose self temporarily is not the *abductees'* explanation for their experience." Although Bowers and Eastwood do not themselves believe that an account of any phenomenon that assigns a central role to unconscious intrapsychic structures or motives is "doomed" or "epistemologically impossible," they argue that one should proceed with extreme caution when developing a theory of this sort. When unconscious processes are proposed, "it is difficult to know when you've got it (more or less) right," and so such theories should be subject to careful empirical tests.

We agree with most of Bowers and Eastwood's comments on this central aspect of our account of the UFO abduction phenomenon. We find it unfortunate, however, that they used psychoanalytic theory as an exclusive point of reference in their discussion. It is no longer taboo to argue that Freud actually developed many testable hypotheses that are reasonably compatible with the principles of contemporary cognitive psychology (Erdelyi, 1985). But, it is also the case that most readers will be aware of the long history of unsatisfying efforts to empirically verify psychoanalytic concepts. For those readers, an association with a tradition notable for proposing poorly specified and untestable hypotheses will certainly not count as a point in our model's favor.

As a corrective, we would like to emphasize that this aspect of our theorizing is consistent not only with the psychoanalytic tradition but also with a great deal of contemporary nonpsychoanalytic research and theorizing. For example, Bargh's (1990; Bargh & Gollwitzer, 1994) program of research on "auto-motives" is premised on the idea that goals and motives exist as mental structures that can be automatically activated by features of social, physical, and psychological situations. Furthermore, Bargh has presented evidence that this can occur without a person's awareness. Greenwald and Banaji (1995) reviewed research consistent with the idea that attitudes can operate unconsciously, and McClelland, Koestner, and Weinberger (1989) empirically distinguished between self-attributed (conscious) and implicit (unconscious) motives. Our hypothesis that escape-from-self motives can shape abduction narratives without an abductee's awareness is thus compatible with a broad range of mainstream psychological research.

Extensions and New Directions

Abductees As Survivors and Experts

In our account of how abduction memories are maintained, we did not discuss the possibility that belief in the literal reality of the experience might be reinforced by the special status an abductee might accrue as a recognized "survivor." Fortunately, Spence elaborates on this point in his commentary. As he notes, self-identification as an abductee can lead to a certain degree of authority and power that most people would find appealing.⁵

⁵It is not the case, however, that abduction stories are generally conveyed in the objective "no-nonsense" language Spence describes (see McLeod et al.'s discussion of the affective state of abductees when recounting their experiences).

During a recent rereading of Mark Twain's (1884/1987) *The Adventures of Huckleberry Finn*, the first author of this response (Newman) was startled to come across the following account of the aftermath of a prank played on the slave, Jim, by Huck and Tom Sawyer. Jim had fallen asleep outside. The boys sneaked up on him, removed his hat, and hung it on a tree limb right next to him.

Afterwards Jim said the witches bewitched him, and put him in a trance, and rode him all over the State, and then set him under the trees again to show who done it. And next time Jim told it he said they rode him down to New Orleans: and after that, every time he told it he spread it more and more, till by-and-by he said they rode him all over the world, and tired him most to death, and his back was all over saddle-boils. (p. 6)

On the one hand, this passage highlights the striking commonalities between abduction tales and older oral traditions. It thus is supportive of the "folkloric approach" to the abduction phenomenon (Bullard, 1991; Ellis, 1988) that Arndt and Greenberg speak of so favorably in their commentary. Equally interesting, though, is the aftermath to Twain's episode. Jim was "monstrous proud about it." People would come from miles away to hear his story and "would stand with their mouths open and look him all over, same as if he was a wonder." Not only that, but, if anyone else dared to express an opinion on the ways of the witches, "Jim would happen in and say 'Hm! What you know 'bout witches?'" As a result, that person was "corked up and had to take a back seat" (Twain, 1884/1987, pp. 6–7).

We should note that the expectations for authority and expertise might themselves begin to feel burdensome to an abductee and might intensify his or her desire to escape the self. But, this passage from Twain vividly illustrates Spence's argument and perhaps also McLeod et al.'s observation that "experiencers seem extremely ambivalent about having their stories confirmed by other experiencers."

From Extraterrestrial Fantasy to Autobiographical Episode

A major feature of our explanation of the abduction phenomenon was that it is not necessary to assume that a person claiming to have been abducted by aliens is either psychotic or a liar. Instead, internally generated fantasies have the potential to be mistaken for autobiographical memories, and one's confidence in the veracity of those memories might subsequently increase. Our account assigned a relatively active role to the abductee in terms of both the construction of the abduction narrative and the maintenance of his or her belief in the reality of the event. At the same time, our picture of the

process by which people initially turn fantasies into what they believe are autobiographical episodes presented abductees in a rather passive role. Essentially, we claimed in the target article that certain situations (e.g., hypnotic inductions) and certain people (e.g., investigators suspecting extraterrestrial activity) could lead certain other people (especially those with high levels of fantasy proneness or preexisting beliefs in the reality of UFOs) to view their fantasized abduction episodes as being events they actually experienced. Our account lacked a description of an active decision-making process that might lead even a skeptical abductee in such a situation to accept a UFO-related experience as being real (although it is possible that there is some self-selection into those situations).

Fortunately, some of the commentaries help fill out the overall picture. Ross and Newby present a fascinating and compelling account of how a person could conscientiously use "truth criteria" to evaluate an abduction memory and to conclude that the event did in fact occur. Ross and Newby show how honest and sane people might self-identify as abductees even after making what seemed like an honest attempt to carefully assess the credibility of their astonishing memories. More than that, Ross and Newby describe how a skeptic, using the very same truth criteria, could reach the opposite conclusion.

Banaji and Kihlstrom conceive of abduction memories as delusions that are "natural byproducts of our attempts to explain the unusual things that can happen to us." They discuss how anomalous experiences, especially those causing anxiety, can trigger an attribution process that could lead one to accept an alien abduction as a reasonable explanation for those experiences. An important feature of their account is their demonstration of how sane people using normative inferential processes—including general judgmental heuristics such as representativeness—might come to believe that their puzzling thoughts, memories, and experiences could be traceable to a cause that they might otherwise consider implausible.⁶

Conclusion

At the broadest level, we hoped that our target article would provoke a reasoned exchange on a psychological phenomenon infrequently discussed in mainstream

⁶Banaji and Kihlstrom present a list of anomalous experiences—derived from the Hopkins, Jacobs, and Westrum (1992) survey—that might give rise to an abduction report. Although these are plausible antecedents, we should point out again that the Hopkins et al. survey did not reveal that these experiences are actually correlated with abduction reports. Also, that survey did not provide evidence that 3.7 million people would identify themselves as abductees.

journals. More than that, we hoped that this discussion of UFO abductees would help provide alternatives to the false "are they crazy or liars?" dichotomy. Those hopes have been fulfilled. We are also pleased that some commentators (e.g., Banaji & Kihlstrom; Bowers & Eastwood; Clark & Loftus; Orne et al.; Ross & Newby) made more of the relevance of the material we covered to possible false memories of all kinds, not just those involving UFO abductions. Our own discussion of such connections was necessarily brief.

Some of the more critical commentaries point out that we did not provide scientific proof of our theory. We wish to emphasize that we agree completely. Research in other contexts has shown how spurious memories can form and why people might be motivated to desire submissive masochistic experiences. The point of our target article was to argue that these other phenomena provide a plausible way of understanding UFO abduction narratives. We do not claim to have proved that that is what they are. Nonetheless, we remain firm in our belief that ignoring the motivational themes of the UFO abduction narrative will only hinder our understanding of it. It is not just another false memory.

Notes

We thank Dan Cervone for his helpful comments on a preliminary version of this response.

Leonard S. Newman, Department of Psychology (M/C 285), 1009 Behavioral Sciences Building, University of Illinois, 1007 West Harrison Street, Chicago, IL 60607-7137. E-mail: lnewman@uic.edu.

Roy F. Baumeister, Department of Psychology, Mather Memorial Hall, Case Western Reserve University, Cleveland, OH 44106.

References

- Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition* (Vol. 2, pp. 93-130). New York: Guilford.
- Bargh, J. A., & Gollwitzer, P. M. (1994). Environmental control of goal-directed action: Automatic and strategic contingencies between situations and behavior. In W. D. Spaulding (Ed.), *Nebraska Symposium on Motivation: Vol. 41. Integrative views of motivation, cognition, and emotion* (pp. 71-124). Lincoln: University of Nebraska Press.
- Baumeister, R. F. (1987). How the self became a problem: A psychological review of historical research. *Journal of Personality and Social Psychology*, 52, 163-176.
- Baumeister, R. F. (1989). *Masochism and the self*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Baumeister, R. F. (1991a). *Escaping the self*. New York: Basic.
- Baumeister, R. F. (1991b). *Meanings of life*. New York: Guilford.
- Baumeister, R. F., & Newman, L. S. (1994a). How stories make sense of personal experiences: Motives that shape autobiographical narratives. *Personality and Social Psychology Bulletin*, 20, 676-690.
- Baumeister, R. F., & Newman, L. S. (1994b). Self-regulation of cognitive inference and decision processes. *Personality and Social Psychology Bulletin*, 20, 3-19.
- Bloecher, T., Clamar, A., & Hopkins, B. (1985). *Final report on the psychological testing of UFO abductees*. Mount Rainier, MD: Fund for UFO Research.
- Bryan, C. D. B. (1995). *Close encounters of the fourth kind: Alien abduction, UFOs and the conference at M.I.T.* New York: Knopf.
- Bryant, R. A. (1995). Fantasy proneness, reported childhood abuse, and the relevance of reported abuse onset. *International Journal of Clinical and Experimental Hypnosis*, 43, 184-193.
- Bullard, T. E. (1987a). *On stolen time: A summary of a comparative study of the UFO abduction mystery*. Mount Rainier, MD: Fund for UFO Research.
- Bullard, T. E. (1987b). *UFO abductions: The measure of a mystery. Vol. 2: Catalogue of cases*. Mount Rainier, MD: Fund for UFO Research.
- Bullard, T. E. (1989). Hypnosis and UFO abductions: A troubled relationship. *Journal of UFO Studies*, 1, 3-40.
- Bullard, T. E. (1991). Folkloric dimensions of the UFO phenomenon. *Journal of UFO Studies*, 3, 1-57.
- Bullard, T. E. (1994a). Addendum: The influence of investigators on UFO abduction reports: Results of a survey. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 571-619). Cambridge, MA: North Cambridge Press.
- Bullard, T. E. (1994b). A comparative study of abduction reports update. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 45-48). Cambridge, MA: North Cambridge Press.
- Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control theory approach to human behavior*. New York: Springer-Verlag.
- Council, J. R., & Huff, K. D. (1990). Hypnosis, fantasy activity, and reports of paranormal experiences in high, medium, and low fantasizers. *British Journal of Experimental and Clinical Hypnosis*, 7, 9-15.
- Duval, T. S., Duval, V. H., & Mulilis, J. P. (1992). Effects of self-focus, discrepancy between self and standard, and outcome expectancy favorability on the tendency to match self to standard or to withdraw. *Journal of Personality and Social Psychology*, 62, 340-348.
- Ellis, B. (1988). The varieties of alien experience. *Skeptical Inquirer*, 12, 263-269.
- Erdelyi, M. H. (1985). *Psychoanalysis: Freud's cognitive psychology*. New York: Freeman.
- Fuller, J. G. (1966). *The interrupted journey*. New York: Putnam.
- Garry, M., & Loftus, E. F. (1994). Pseudomemories without hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 42, 363-378.
- Garry, M., Loftus, E. F., & Brown, S. W. (1994). Memory: A river runs through it. *Consciousness and Cognition*, 3, 438-451.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4-27.
- Grice, H. P. (1975). Logic and conversation. In P. Cole & J. L. Morgan (Eds.), *Syntax and semantics: 3. Speech acts* (pp. 41-58). New York: Academic.
- Higgins, E. T. (1981). The "communication game": Implications for social cognition and persuasion. In E. T. Higgins, C. P. Herman, & M. P. Zanna (Eds.), *Social cognition: The Ontario Symposium* (Vol. 1, pp. 343-392). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Higgins, E. T. (1991). Development of self-regulatory and self-eval-

- uative processes: Costs, benefits, and trade-offs. In M. R. Gunnard & L. A. Sroufe (Eds.), *Self processes and development: Twenty-third Minnesota Symposium on Child Psychology* (pp. 125–165). Minneapolis: University of Minnesota Press.
- Hopkins, B., Jacobs, D. M., & Westrum, R. (1992). *Unusual personal experiences: An analysis of the data from three national surveys*. Las Vegas: Bigelow Holding Corporation.
- Hufford, D. (1994). Awakening paralyzed in the presence of a "strange visitor." In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 348–353). Cambridge, MA: North Cambridge Press.
- Irwin, H. J. (1990). Fantasy proneness and paranormal beliefs. *Psychological Reports*, 66, 655–658.
- Jacobs, D. M. (1992). *Secret life: Firsthand accounts of UFO abductions*. New York: Simon & Schuster.
- Jacobson, E., & Bruno, J. (1994). Narrative variants and major psychiatric illnesses in close encounter and abduction narrators. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 304–309). Cambridge, MA: North Cambridge Press.
- Jacoby, L. L., Kelley, C., Brown, J., & Jasechko, J. (1989). Becoming famous overnight: Limits on the ability to avoid unconscious influences of the past. *Journal of Personality and Social Psychology*, 56, 326–338.
- Johnson, D. A. (1994). Personality characteristics of UFO abductees. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 316–319). Cambridge, MA: North Cambridge Press.
- Klass, P. J. (1988). *UFO abductions: A dangerous game*. Buffalo, NY: Prometheus.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–498.
- Lynn, S. J., & Pezzo, J. W. (1994, August). *Close encounters of a third kind: Simulated hypnotic interviews of alien contacts*. Paper presented at the meeting of the American Psychological Association, Los Angeles.
- Lynn, S. J., & Rhue, J. W. (1988). Fantasy proneness: Hypnosis, developmental antecedents, and psychopathology. *American Psychologist*, 43, 35–44.
- Mack, J. E. (1994). *Abduction: Human encounters with aliens*. New York: Macmillan.
- Martin, L. L., & Achee, J. W. (1992). Beyond accessibility: The role of processing objectives in judgment. In L. L. Martin & A. Tesser (Eds.), *The construction of social judgments* (pp. 195–216). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review*, 96, 690–702.
- Moura, G. (1994). Abduction phenomena in Brazil. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 186–190). Cambridge, MA: North Cambridge Press.
- Parnell, J. O., & Sprinkle, R. L. (1990). Personality characteristics of persons who claim UFO experiences. *Journal of UFO Studies*, 2, 45–58.
- Peterson, C. (1991). Further thoughts on explanatory style. *Psychological Inquiry*, 2, 50–57.
- Pritchard, A., Pritchard, D. E., Mack, J. E., Kasey, P., & Yapp, C. (Eds.). (1994). *Alien discussions: Proceedings of the Abduction Study Conference*. Cambridge, MA: North Cambridge Press.
- Pyszczynski, T., & Greenberg, J. (1987). Toward an integration of cognitive and motivational perspectives on social inference: A biased hypothesis-testing model. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 20, pp. 297–340). New York: Academic.
- Randles, J. (1988). *Alien abductions: The mystery solved*. New Brunswick, NJ: Inner Light.
- Rauschenberger, S. L., & Lynn, S. J. (1995). Fantasy proneness, DSM-III-R Axis I psychopathology, and dissociation. *Journal of Abnormal Psychology*, 104, 373–380.
- Ring, K., & Rosing, C. J. (1990). The Omega Project: A psychological survey of persons reporting abductions and other UFO encounters. *Journal of UFO Studies*, 2, 59–98.
- Rodeghier, M., Goodpaster, J., & Blatterbauer, S. (1991). Psychosocial characteristics of abductees: Results from the CUFOS Abduction Project. *Journal of UFO Studies*, 3, 59–90.
- Schooler, J. W. (1994). Seeking the core: The issues and evidence surrounding recovered accounts of sexual trauma. *Consciousness and Cognition*, 3, 452–469.
- Schwarz, N., Strack, F., Hilton, D., & Naderer, G. (1991). Base rates, representativeness, and the logic of conversation: The contextual relevance of "irrelevant" information. *Social Cognition*, 9, 67–84.
- Silva, C. E., & Kirsch, I. (1992). Interpretive sets, expectancy, fantasy proneness, and dissociation as predictors of hypnotic response. *Journal of Personality and Social Psychology*, 63, 847–856.
- Snyder, C. R., & Higgins, R. L. (1988). Excuses: Their effective role in the negotiation of reality. *Psychological Bulletin*, 104, 23–35.
- Spanos, N. P., Burgess, C. A., & Burgess, M. F. (1994). Past-life identities, UFO abductions, and satanic ritual abuse: The social construction of memories. *International Journal of Clinical and Experimental Hypnosis*, 42, 433–446.
- Spanos, N. P., Cross, P. A., Dickson, K., & DuBreuil, S. C. (1993). Close encounters: An examination of UFO experiences. *Journal of Abnormal Psychology*, 102, 624–632.
- Spanos, N. P., Menary, E., Gabora, N. J., DuBreuil, S. C., & Dewhirst, B. (1991). Secondary identity enactments during hypnotic past-life regression: A sociocognitive perspective. *Journal of Personality and Social Psychology*, 61, 308–320.
- Stone-Carmen, J. (1994). A descriptive study of people reporting abduction by UFOs. In A. Pritchard, D. E. Pritchard, J. E. Mack, P. Kasey, & C. Yapp (Eds.), *Alien discussions: Proceedings of the Abduction Study Conference* (pp. 309–315). Cambridge, MA: North Cambridge Press.
- Tavris, C. (1993, January 3). Beware the incest-survivor machine. *New York Times Book Review*, p. 1.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder: Westview.
- Twain, M. (1987). *The adventures of Huckleberry Finn*. New York: Penguin. (Original work published 1884)
- Wilson, S. C., & Barber, T. X. (1983). The fantasy-prone personality: Implications for understanding imagery, hypnosis, and parapsychological phenomena. In A. A. Sheikh (Ed.), *Imagery: Current theory, research, and application* (pp. 340–390). New York: Wiley.
- Wolcott, J. (1995, July 31). I lost it in the saucer. *New Yorker*, pp. 75–78.

