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RESEARCH ARTICLE

The UFO Abduction Syndrome

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Budd Hopkins died in August 2011, while this manuscript was in preparation. Davis and Hopkins developed the test described in this paper and Donderi collaborated with them to evaluate it. Portions of this work were presented as a poster in 2007 (Donderi, Hopkins, & Davis 2007).

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Abstract—Some people say that they have been abducted by extraterrestrials. We obtained responses to 608 true–false questions from 52 self-reported abductees and compared their responses to those of 75 non-abductee controls and to 26 simulators whom we asked to respond "as if" they had been abducted. The entire question set, as well as a subset of 65 questions identified by discriminant analysis, differentiated among self-reported abductees, controls, and simulators. This result helps to define a state of mind that we call the UFO Abduction Syndrome.

Introduction

A nationwide survey led to the conclusion that perhaps two percent of Americans had experienced what the survey sponsors called the "UFO Abduction Syndrome" (Hopkins, Jacobs, & Westrum, 1992). The conclusion was based on "true" responses to four of five questions that Hopkins and abduction researchers David Jacobs and Ron Westrum believed were positive indicators of that experience, and a "false" response to a single question intended to eliminate yea-sayers or "wannabes." The Roper Poll tested almost six thousand households with these questions during three stratified random sampling surveys completed in 1991. The six abduction-related questions were integrated with other questions on lifestyle, political

opinions, and the like, so the indicator questions did not stand out as a separate category, and UFO abductions were not mentioned by the pollsters. The startling conclusion from this poll motivated Hopkins and Davis to develop the more comprehensive—and more intensive—screening test discussed here. The test distinguishes the mental state of people reporting that they were abducted by aliens from the mental state of people not reporting an abduction, and also from the mental state of people taking the test "as if" they had been abducted by aliens. The test, called the American Personality Inventory, may help to better define the UFO Abduction Syndrome.

The UFO abduction syndrome has been evaluated as real by Hopkins (1996, 1987, 1981) and Jacobs (2000, 1992, 1998), among others. It has also been explained as the reinstatement of birth trauma (Lawson, 1988), as sadomasochistic fantasy (Newman & Baumeister 1996), and as fantasy-proneness leading to a failure to distinguish between imagination and reality (Clancy, 2005). It has also been a theme of film and TV fiction (*The X-Files, Taken)*.

Ex Post Facto Reasoning

We cannot know whether any measured difference between alien abduction reporters and controls *caused* the reported abduction experience or whether the measured differences *were caused by* the reported experience. No research, including ours, answers—or can answer—this question. But in order to provide a context for our work, we start by reviewing some of the more substantial research on personality aspects of self-reported abductees[1] that may be relevant to understanding our own results.

Bloecher, Clamar, and Hopkins (1985) obtained the cooperation of five male and four female abductees, each of whom was asked to not mention or discuss the abduction experience during the interviews and tests carried out by clinical psychologist Elisabeth Slater, who was led to believe that she was participating in a study on "creativity."

She administered the Wechsler Adult Intelligence Scale (WAIS), the Thematic Apperception Test (TAT), the Rorschach Test, and the Minnesota Multiphasic Personality Inventory (MMPI) to each of the nine participants. The WAIS is a widely used test that measures general knowledge and cognitive ability. The TAT and Rorschach tests are "projective tests" which require the testee to describe in his or her own words what is seen in the series of Rorschach "ink blots" and what he or she experiences while looking at the generally more realistic images of the TAT. The MMPI is a 567-item true–false test whose answers are used to construct a psychological profile of each respondent on a series of scales that reflect potential sources

of personality disturbance. All of the participants had high average or above-average intelligence as measured by the WAIS. None demonstrated psychopathology as demonstrated by the MMPI. All nine had been to college and three had been to graduate school, and they were employed in occupations that ranged from secretary to college instructor, to corporation lawyer, to director of a chemical laboratory.

The interviews, TAT, and Rorschach test results led Slater to describe the nine people as "distinctive, unusual, and interesting subjects . . . including some who were downright 'eccentric' or 'odd.'" Slater summarized her conclusions as follows:

> In sum, the formal test results support the earlier stated clinical impression that one has a group of unusual and interesting personalities characterized by relatively high intellectual ability and richly evocative and charged inner worlds. At their best they are highly inventive, creative, and original. At their worst, they are beset by intense emotional upheaval . . . Another factor common to the nine subjects in terms of emotional functioning is a modicum of what is technically termed narcissistic disturbance. It is manifest along at least three dimensions: identity disturbance, lowered self-esteem, relative egocentricity and/or lack of emotional maturity . . . It may also be felt very concretely in terms of impaired body image and/or somatic concerns about one's bodily integrity. (Slater 1983:21–22)

After being told about the experience common to her nine subjects, Slater wrote,

> The first and most critical question is whether our subjects' reported experiences could be accounted for strictly on the basis of psychopathology, i.e. mental disorder. The answer is a firm no. In broad terms, if the reported abductions were confabulated fantasy productions, based on what we know about psychological disorders, they could only come from pathological liars, paranoid schizophrenics, and severely disturbed and extraordinarily rare hysteroid characters subject to fugue states and/or multiple personality. . . not one of the subjects, based on test data, falls into any of these categories . . . In other words, there is no apparent psychological explanation for their reports. (Slater 1983: 33–34)

Slater's report is the first and the most thorough systematic evaluation of the mental state of people reporting being abducted by aliens.

Ring and Rosing (1990) analyzed results from a mail survey of 264 people solicited (with about a fifty percent response rate) from two communities of interest. One hundred thirty-six respondents had either reported a UFO experience or were simply interested in UFOs. They were

drawn from mailing lists provided by four different UFO researchers. One hundred twenty-eight respondents had either reported a near-death experience (NDE) or were simply interested in NDEs. They were from Ring's mailing lists or from those of the International Association for Near-Death Studies. Fifty-eight percent of the respondents were women. They completed nine questionnaires which, in addition to basic demographic information, queried experiences and interests, childhood experiences, home environments, tendencies toward psychological dissociation, awareness of paranormal phenomena, life changes, religious beliefs, and opinions about the import of UFOs and NDEs.

The UFO experiencer and the NDE experiencer groups both reported more childhood abuse and trauma than did either of the two groups that were just interested in UFOs or NDEs. Although all the groups were about equal on the Ring and Rosing measures of fantasy-proneness, the UFO experiencers reported more awareness than the other groups of what Ring and Rosing describe as "alternate realities."

Parnell and Sprinkle (1990) reported data collected over an 18-year period from 225 respondents (37% male) who wrote to Sprinkle, a psychologist, about UFOs and had subsequently completed a mail survey. Each respondent completed the 16PF personality index—another personality questionnaire—and the MMPI, and they also described their UFO experience. The respondents were divided into five groups based on whether they reported

1) interest in UFOs but no experience
2) a sighting of a UFO as a "light or object in the sky"
3) a sighting of what appeared to be a spacecraft
4) a sighting of a UFO occupant
5) an abduction

The respondents were also classified based on whether they reported communication between themselves and an extra-terrestrial. (It follows, but was not stated in the report, that most of these people would have been in groups 3 to 5.) Neither the average MMPI scores nor the average 16PF scores showed evidence of psychopathology. Nor were there score profile differences across the five sighting groups.

Rodeghier, Goodpaster, and Blatterbauer (1991) studied 27 people who reported having been taken against their will from normal surroundings by non-human beings, taken to a structure that was assumed to be a spacecraft, and questioned by the occupants either vocally or telepathically. These people responded to a mail questionnaire by completing the Inventory of

Childhood Memories and Imaginings (IMCI) (Barber & Wilson 1982), which is a test that measures fantasy-proneness. They also took the MMPI, the Creative Imagination Scale (CIS) (Wilson & Barber 1978), and a questionnaire that recorded demographics and information about a variety of experiences. The data were augmented by the results of eight more abductees who completed only the IMCI. The average fantasy-proneness score over all 35 respondents was within the normal population range. Two respondents had elevated scores, which is the same proportion found in the normal population.

Personality scale scores from all 19 subjects completing the MMPI were largely within the normal range, but further analysis of the test scores divided the respondents into two distinct groups. One group of 11 people was normal on all scales. A second group of eight people had higher than average scores on seven of the nine MMPI personality scales and a lower than average score on another. This second group also reported a much higher frequency of childhood sexual abuse.

Spanos, Cross, Dickson, and DuBreuil (1993) studied 176 people invited to his laboratory by ads in local papers. One ad invited people "who have seen U.F.O.s" to contact the researcher. Another ad, as well as a classroom recruitment, sought volunteers "for a personality study" (Spanos et al. 1993:625). Spanos et al. compared four groups:

1) 31 people who experienced something like "a craft seen close up" or "missing time"
2) 18 people who saw "lights or objects in the sky that appear to be unusual"
3) 53 people, recruited through a newspaper ad, with no UFO experiences
4) 74 undergraduates with no UFO experience, who received course credit for being tested

Everyone was given 20 different tests including questionnaires about UFO beliefs and paranormal experiences, the MMPI schizophrenia scale, short IQ measures, and other personality measures that included assessments of fantasy-proneness. The two groups with UFO experiences were not significantly different from the other two groups on any of the tests of mental health or emotional stability. Spanos et al. write that "these findings provide no support whatsoever for the hypothesis that UFO reporters are psychologically disturbed." The groups did differ on intelligence. The "non-intensive" UFO group scored higher than all the other groups, and the student control group scored higher than the newspaper-recruited control group. Spanos et al. point out that the UFO groups did differ from

the two control groups in one characteristic: "The finding that most clearly differentiated the UFO groups from the comparison groups was the belief in UFOs and in the existence of alien life forms" (Spanos et al. 1993:629). A likely result of observing what you think is an extraterrestrial spaceship or an extraterrestrial life form would be to decide that it is real.

Clancy, McNally, Schacter, Lenzenweger, and Pitman (2002:456) also recruited people to their study by advertising in newspapers, first for "people who may have been contacted or abducted by space aliens" and then for "people to participate in a memory study." Eleven people reported conscious memories of an alien abduction following waking up paralyzed at night. Nine people thought they might have been abducted but did not consciously remember it. Thirteen people who did not claim to have been abducted were the control group. Everyone completed measures designed to assess post-traumatic stress disorder (PTSD), depression, dissociative experiences, hypnotic susceptibility, and schizotypal aspects of personality. All of them were then tested on a version of a test for "false memory" (the Deese/Roediger–McDermott paradigm, Roediger & McDermott 1995). This test presents participants with spoken lists of words having a common theme (e.g., candy, sugar, taste, nice) followed first by a recall test ("say the words that you heard before") and then by a recognition test presented as a list ("check off the words on this list that you heard before"). The checkoff list includes a semantically similar word (e.g. sweet) that was not spoken. The false memory error is to respond by including the semantically similar word in spoken recall or to check it off on the word-recognition list.

The 20 people who said that they had been abducted by aliens made more false memory mistakes than did the controls. The group that consciously recalled an abduction made more false memory mistakes than the abduction group without conscious recall. The two abduction groups had higher schizotypical personality measures than the controls. In addition, whether you were an abductee or a control, a higher score on the absorption scale, the Beck Depression Inventory, the Magical Ideation scale, the PTSD measure, and the dissociative experiences scale all predicted more false recall (and to a lesser extent, more false recognition) on the memory test.

McNally, Lasko, Clancy, Macklin, Pitman, and Orr (2004) recruited six women and four men (average age 48) reporting having been abducted by aliens. All of them had close to clinical levels of PTSD. All of them reported sleep paralysis that they associated with the presence of aliens. Twelve controls from the community (average age 50) were not assessed for PTSD, but the abductee sample was much higher on scales of absorption and trait anxiety than the control sample.

The experimenters prepared two short narratives recapitulating experiences that each of the abductees had reported to the researchers. Three other scripts were prepared: a non-abduction but stressful script, an emotionally positive script, and an emotionally neutral script. Each subject was instrumented to record heart rate, skin conductance, and EMG. Then each abduction subject and a matched control listened to the five scripts provided for that abductee. The subjects were given relaxation instructions and then were asked to visualize the script as they listened to it, were asked to imagine each script after having heard it, and then were instructed to relax before hearing the next script. The physiological measures collected during each script and the questionnaire responses collected after each script showed that the abductees reacted with much greater emotional stress than did the linked control subjects not only to the abduction scripts, which were based on their own experiences, but also to the stress-inducing but non-abduction-related scripts. Their physiological responses were on a par with those of PTSD patients' response to scripts describing their own trauma.

Hough and Rogers (2007) posted notices on UFO/abduction websites and called people they knew to have reported an abduction in order to obtain a sample of 26 abduction reporters. They also obtained 26 control subjects who did not report abductions, from the English cities of Preston and Liverpool. Each group contained 20 women and 6 men. The groups were similar demographically except that the abductees had slightly less formal education. Each person completed four self-report measures at home and returned the results by mail. The measures were:

1) an alien abduction experience scale, summing the number of abduction experiences of each person
2) a fantasy-proneness scale called the Creative Experiences Questionnaire
3) the Self-report emotional intelligence test
4) the Ten-Item personality inventory, a short test that locates each respondent on the "Big Five" personality dimensions of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.

Except for the expected differences on the scale measuring abduction experiences, there were no significant differences between the two samples on the measures of fantasy-proneness, emotional intelligence, or overall personality profile.

Summary of the Studies

Slater's nine abductees, the eleven MMPI–normal abductees of Rodeghier, Goodpaster, and Blatterbauer, Spanos et al.'s 31 people who had "seen a craft close up" or who had experienced "missing time," and Hough and Rogers' 26 abductees were all within the normal range on the tests used to assess them, including tests of intelligence, the MMPI, other general personality measures, and tests of fantasy-proneness. These 77 "normal" people reported 77 very abnormal experiences. Parnell and Sprinkle's sample of 225 people included people who reported seeing a craft "close up," or an occupant, or an abduction, and their sample group averaged within the normal range on the MMPI.

Other abductees were less psychologically normal. Eight of Rodeghier et al.'s abductees had MMPI scores well beyond the normal range on eight of nine scales, and they also reported experiences of childhood sexual abuse. Ring and Rosing's UFO experiencers reported more childhood sexual abuse than the non-experiencers in their sample. Clancy et al.'s 13 abductees scored higher than normal on a scale of schizotypy, and also produced more "false positives" in a memory test than did controls. And ten other abductees in the McNally et al. study tested at barely sub-clinical levels of PTSD and responded with extreme physiological measures when listening to accounts of their own abduction narratives.

The meaning of "abductee" varies over these studies from the one extreme of someone independently contacting an abduction researcher to the other extreme of having answered a newspaper or website advertisement for research subjects, with a minimum of explanation. This adds to the uncertainty of who—as well as what—is being measured. The purpose of our study was to evaluate a new test that might be able to distinguish among three groups of people. The first group is people claiming to have been abducted by aliens and who were subsequently interviewed and studied by abduction researchers. The second group is people not claiming to have been abducted by aliens and who were recruited to take the test thinking that the researchers were collecting normalizing data for a new personality inventory. No mention was made to them about UFOs, aliens, or alien abductions before they took the test. The third group were "simulators" who were primed with leading questions about UFOs and alien abductions and then asked to pretend, based on their cultural knowledge of the abduction phenomenon, to have been abducted and to answer the questions on the test "as if" they had experienced an alien abduction.

Method

The American Personality Inventory

The American Personality Inventory (API) consists of 608 true–false questions relating to attitudes and emotions that we thought might be modified by experiencing an alien abduction. Abduction researchers assume that not all abduction experiences are consciously recalled, so no API question actually mentions an abduction experience. Instead, the questions were designed to define and measure an emotional and cognitive profile that characterizes someone who had experienced an abduction, whether or not it was consciously remembered. The test was constructed by Davis and Hopkins on the model of the well-known Minnesota Multiphasic Personality Inventory (MMPI). Its name was chosen to be unrelated to the UFO or abduction phenomena.

The questions were organized into 23 non-independent scales. Each scale included statements whose answer would contribute to defining a characteristic mental attitude that might be produced by an abduction experience. Table 1 includes the scale titles, the total number of questions contributing to each scale, and a typical scale question. Answering each question in the direction (true or false) that contributed to the scale increases the scale score by 1; answering the question in the other direction decreases the score by 1. The normalized scale score was the sum over questions divided by the number of questions, making the maximum score +1 and the minimum, –1. The pencil-and-paper version of the API consisted of an 18-page question booklet and a five-page answer sheet where a T or F was circled to respond to each question. The computer-presented test prompted the user to click a button to display each question in order. It then recorded both the answer (T or F) to the question and the elapsed time in seconds from when the question was presented to when it was answered. No use was made of the elapsed time information in this study.

Participants

Fifty-two abductees (26 men and 26 women) were recruited among people who had reported abductions to Hopkins and Davis or to several other abduction researchers. Twenty abductees recalled their abduction experience spontaneously without hypnosis while 32 had undergone one or more regressive hypnosis sessions before the API was administered. Twenty-two non-abductee controls were recruited by Hopkins and Davis from the New York City area and 53 controls were recruited by Donderi and his students from the Montréal area. All the controls said (after their test was completed) that they had never experienced a UFO abduction.

TABLE 1
Scales of the American Personality Inventory (API) with the Number of Questions in the Scale, a Typical Scale Question, and the Score (T or F) That Adds to the Abductee Profile

Scale	N	Typical Question	Score
Fear	49	I am more afraid of the dark than anyone my age should be.	(T)
Animal	18	People who talk to animals instead of other people are annoying.	(F)
Fake	18	Simple medical procedures always make me anxious.	(T)
Medical	29	All doctors lie to you.	(T)
Wannabe	23	I find it almost impossible to fly in an airplane.	(T)
Anomalies	62	I have seen an unusual fog or haze in my home.	(T)
Wrong	108	If my employer were to know everything about me, I would immediately lose my job.	(T)
Sleep	37	I avoid sleep until I can no longer function without it.	(T)
Sexual	35	I find talking about sex to be enjoyable.	(T)
Dreams	66	In my dreams I often picture my own bedroom.	(T)
Break-in	18	I am very afraid of someone breaking into my house at night.	(T)
Missing	19	Someone in my life has witnessed my being unexplainably missing for a period of time.	(T)
Environment	21	The oceans aren't as polluted as we have been led to believe.	(F)
Helplessness	20	If you just do your best everything usually works out in the end.	(F)
Babies	27	People who don't like to hold babies are strange.	(F)
Insect	17	I am no more afraid of insects than other people are.	(F)
Water	16	The problem with swimming in groups is that you can't trust the others you are with.	(T)
Clowns	18	One of the best parts of the circus is seeing the funny shows put on by the clowns.	(F)
Eyes	11	I have trouble making eye contact with others.	(T)
Light	6	A white room lit by a bright unseen light source would be relaxing.	(F)
Child	42	As a child I often experienced great sadness for no particular reason.	(T)
Playmate	14	When I was a child I never had an imaginary friend.	(F)
Poison	8	I have a dim memory of once being nearly poisoned.	(T)

Twenty-six simulators were recruited by Donderi and his students from the Montréal area. The simulators also said that they had never experienced an alien abduction. The age and gender distribution of each group is reported in Table 2.[2]

TABLE 2
Participant Age, Gender, and Scores on the American Personality Inventory (API)

Group	Participants		Age			API scores	
	Men	Women	Average	Range	*SD*	Average	*SD*
Abductees	25	27	43	21–60	9.8	–0.11	0.23
Controls	34	41	30	19–54	14.3	–0.54	0.11
Simulators	5	21	30	19–69	12.4	0.12	0.50

The API was administered to the 52 abductees by several abduction researchers.[3] The control subjects were told only that we were collecting normative data for a new personality inventory. The simulator subjects completed two short questionnaires before they completed the API. The first questionnaire, called the Media Exposure Questionnaire, included a long list of UFO and abduction-related books, films, and TV series. We asked the simulators to place a check by all of them that they had read or seen, and to add any that we had missed on blank lines at the bottom of the questionnaire. The second questionnaire, called the Unusual Personal Experiences Questionnaire, actually consisted of the questions from the Roper Poll survey described earlier (Hopkins, Jacobs, & Westrum, 1992). It asked about the participants' own experiences (had you seen a UFO, had you experienced "missing time", etc.—none of the simulators reported any unusual personal experiences). After the simulators had completed those questionnaires, they were asked to use their own knowledge gained through media exposure to answer the API questions "as if" they had been abducted.

Administering the API

The API was administered as a paper-and-pencil test to the 52 abductees and 22 non-abductee controls from New York and to 19 of the 53 controls tested in Montréal. It was presented on a computer to 34 of the Montréal controls and to all 26 of the simulators tested in Montréal. Either version of the test took between 45 minutes and one hour to administer. The results were tabulated and analyzed by Donderi.

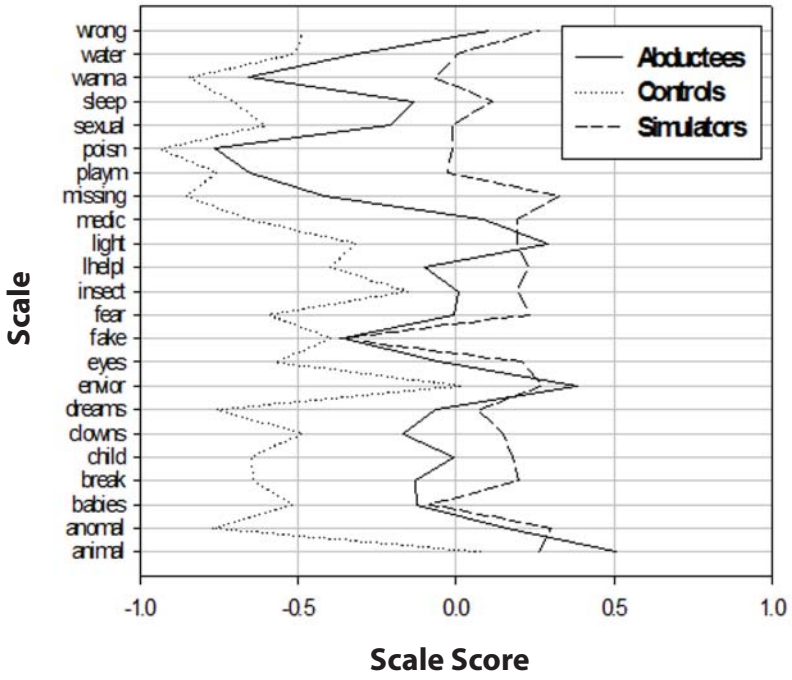

Figure 1. Scale Scores on the American Personality Inventory for the abductee, simulator, and control groups.

Results

The simulators' mean scale score was higher than the abductees' mean scale score on 21 of the 23 API scales. The abductees were higher than the simulators on the other two scales. The control participants scored lower than either the abductees or the simulators on all of the scales (Figure 1, Table 3). The answer (T or F) to each question was scored as conforming to (+1) or deviant from (−1) the expected abduction profile. The average score for each participant across all questions ranged from a maximum possible +1 to a minimum possible −1. Each participant's average score across all 608 questions was treated as the independent variable in an analysis of variance (SAS general linear model) that compared the mean test score across groups using the most conservative tests (type III sums of squares) available in the model. There were significant differences between the participant groups, and planned comparisons showed that the mean of each

TABLE 3
American Personality Inventory Scale Scores for the Abductee, Control, and Simulator Groups

Scale	Abductees (A)		Controls (C)		Simulators (S)		Order
	Mean	*SD*	Mean	*SD*	Mean	*SD*	
Animal	0.51	0.40	0.08	0.36	0.26	0.49	ASC
Anomalies	0.16	0.47	−0.77	0.15	0.30	0.66	SAC
Babies	−0.12	0.44	−0.52	0.27	−0.09	0.62	SAC
Break	−0.13	0.49	−0.64	0.31	0.20	0.71	SAC
Child	0.00	0.36	−0.65	0.17	0.18	0.54	SAC
Clowns	−0.17	0.51	−0.49	0.32	0.15	0.63	SAC
Dreams	−0.06	0.40	−0.76	0.15	0.07	0.59	SAC
Environment	0.39	0.37	0.01	0.29	0.27	0.42	SAC
Eyes	−0.06	0.50	−0.57	0.24	0.21	0.59	SAC
Fake	−0.36	0.26	−0.40	0.30	−0.37	0.35	ASC
Fear	−0.01	0.38	−0.59	0.22	0.23	0.59	SAC
Insect	0.01	0.31	−0.15	0.29	0.19	0.37	SAC
Helpless	−0.10	0.40	−0.40	0.30	0.23	0.63	SAC
Light	0.29	0.41	−0.32	0.24	0.19	0.48	ASC
Medical	0.09	0.54	−0.65	0.28	0.20	0.68	SAC
Missing	−0.42	0.56	−0.86	0.21	0.33	0.75	SAC
Playmate	−0.65	0.36	−0.76	0.25	−0.03	0.80	SAC
Poison	−0.76	0.39	−0.94	0.15	−0.01	0.89	SAC
Sexual	−0.21	0.47	−0.60	0.27	−0.01	0.69	SAC
Sleep	−0.13	0.41	−0.71	0.18	0.12	0.68	SAC
Wannabe	−0.66	0.28	−0.85	0.16	−0.07	0.65	SAC
Water	−0.31	0.47	−0.51	0.32	0.00	0.62	SAC
Wrong	0.11	0.38	−0.48	0.24	0.27	0.54	SAC

group was significantly different from the means of the other groups (Table 4). A *t*-test comparison between the mean scores of those abductees who had experienced hypnotic regression before taking the API (Mean = −0.09, *SD* = .23) and those who recalled their abduction experience spontaneously and took the API without previous hypnotic regression (Mean = −0.15, *SD* = .24) showed that there was no significant difference between the two groups of abductees ($t = 0.94$, $df = 40$, ns).

TABLE 4
Analysis of Variance: Total Score on the American Personality Inventory

	Mean Square	*F*	*p*
Between groups	5.449	82.33	<.0001
Within groups	0.066		
Planned comparisons among groups			
Abductees versus controls	5.696	86.07	<.0001
Abductees versus simulators	14.65	14.65	0.0002
Controls versus simulators	8.596	129.87	<.0001

Discriminant Analysis

Using stepwise discriminant analysis as a statistical tool, we sought to find a subset of questions that would distinguish among the three groups. We found two linear discriminant functions, based on a subset of 65 questions, that discriminated perfectly among the 153 subjects across the three groups. The values assigned to each subject on the two canonical discriminant variables are shown in Figure 2. The 65 computer-presented discriminant analysis questions (along with an additional 15 "fillers" added to lengthen the test, but not included in the scoring) can be administered in less than one-half hour. Since the API is intended as a screening test, the short form has practical advantages.[4]

Discussion and Conclusions

Our study shows that the API separates people thought by several abduction researchers to have experienced an alien abduction from people who profess no knowledge or suspicion about having been abducted, and from people who we asked to simulate having had an abduction experience. Our simulators "stand in" for people trying to fool researchers or the public by claiming that they have been abducted by aliens, but they do not "stand in" for self-deluded abductees.

We have no data from our API respondents on the MMPI, other personality tests, intelligence tests, or tests of fantasy-proneness, so we cannot directly relate their API performance to the significant personality variables identified in some of the earlier studies reported here. The most challenging counterexamples defined by the previous studies are the abductees tested by Clancy et al., who make more substitution errors than controls in false memory tests, and the abductees tested by several

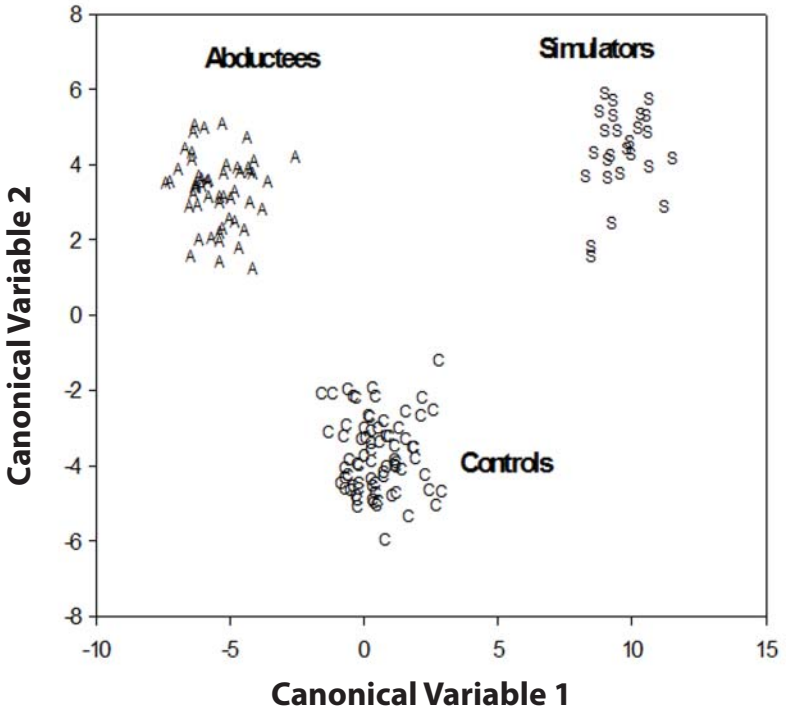

Figure 2. Separation of the abductee, control, and simulator groups on two canonical variables based on 65 questions from a discriminant analysis of the 608 questions of the American Personality Inventory.

researchers reporting high rates of childhood sexual abuse. We do not know whether any of the 52 abductees tested in our study fall into either of those groups.

Twenty of our 52 abductees (9 men and 11 women) reported their experiences by unaided recall before taking the API. The other 32 abductees underwent hypnotically induced memory retrieval that elicited the abduction report before they took the API. Based on their API scores, these two subgroups were indistinguishable. Therefore hypnosis as a memory retrieval tool did not influence the API score of the abductees, nor did it influence the API's separation of abductees from non-abductee controls and from simulators.

Because only a few witnesses claim to have seen someone abducted into a UFO (Hopkins 1996), an API score can place someone only with one of the response groups that were defined in this study. But the people with API

scores in the range of the abductee group are like the twenty abductees who took the API before undergoing hypnosis. Those twenty abduction reports are therefore direct testimony based on consciously recalled experience.

Based on the results from our own abductees and data from the other researchers whose findings were summarized earlier, we hypothesize that some abductees report abductions because they confuse fantasies based on popular culture with memories based on real events, either as a defense against remembering childhood abuse or because they are inclined to fantasize as a matter of personality style. But we also hypothesize that many of the people reporting an alien abduction experience who are found to be psychologically normal when tested afterward are reporting an experience that actually happened to them. There is more to learn about the personality characteristics of people who report an alien abduction experience, and more to learn about the experience itself, before either hypothesis can be confirmed.

Ultimately the API can only serve to reinforce or weaken confidence that someone reporting an abduction narrative has an emotional and attitude profile like those of people reporting abduction narratives to researchers who found those narratives convincing. Deciding whether any of those narratives are true requires additional evidence. But it is an important decision. One verified abduction will change what we know about our place in the universe.

Notes

1 Self-reported abductees will from here on simply be called abductees.

2 The age, background, previous involvement with abduction researchers, and other details about the abductees are available from the corresponding author (dcdonderi@sympatico.ca).

3 The abductee participants were obtained and tested as follows: Hopkins, 20 men and 16 women; David Jacobs, 1 man and 9 women; John Carpenter, 2 men and 2 women; Ted Davis, 1 man; Oliver Kemenczky, 1 man.

4 We do not present either the 608-item full test or the 80-item shorter version (65 discriminant questions and 15 fillers) here so as to maintain their confidentiality, but we will send either test version to qualified investigators who would like to use them. Contact the corresponding author (dcdonderi@sympatico.ca)

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