

# Making UFOs make sense: Ufology, science, and the history of their mutual mistrust

Public Understanding of Science

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## Abstract

Reports of unidentified flying objects and alien encounters have sparked amateur research (ufology), government investigations, and popular interest in the subject. Historically, however, scientists have generally greeted the topic with skepticism, most often dismissing ufology as pseudoscience and believers in unidentified flying objects and aliens as irrational or abnormal. Believers, in turn, have expressed doubts about the accuracy of academic science. This study examines the historical sources of the mutual mistrust between ufologists and scientists. It demonstrates that any science doubt surrounding unidentified flying objects and aliens was not primarily due to the ignorance of ufologists about science, but rather a product of the respective research practices of and relations between ufology, the sciences, and government investigative bodies.

## Keywords

aliens, debunkers, pseudoscience, public understanding of science, science doubt, ufology, unidentified flying objects

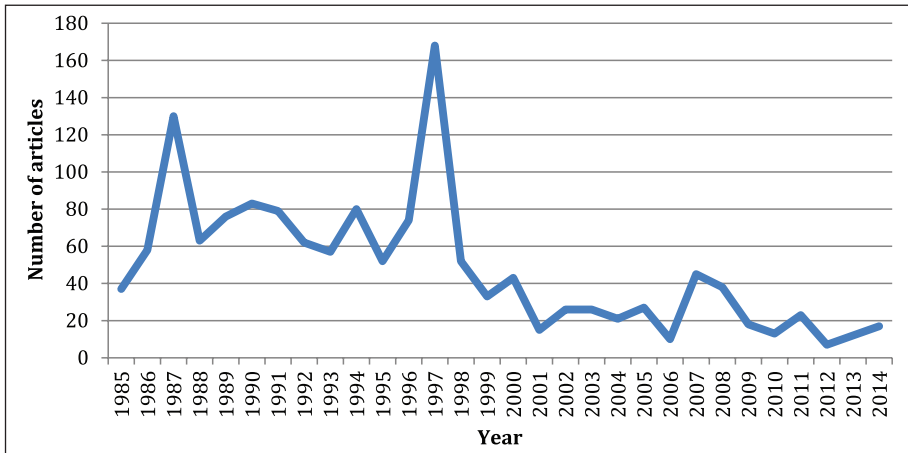
Reports in 1946/1947 of odd, disk-, and rocket-like flying objects signaled the beginning of seven decades of claims of the existence of unidentified flying objects (UFOs) from space, encounters with aliens, and “ancient astronauts.” These, in turn, inspired amateur research (ufology) and extra-terrestrial contact support networks, government investigations, bestselling books, news coverage, television shows, and films. While there is evidence indicating that interest in the subject has been generally waning since the 1990s (Clarke, 2012b; Figure 1), enthusiasts have continued to track reports of sightings, hold local and national meetings, and use the Internet to foster international communication. At the same time, in the United States, television channels H2, Discovery, and National Geographic, have been providing a steady supply of sympathetic documentaries about UFOs and alien contact featuring prominent ufologists. And widely publicized results of a 2012

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**Figure 1.** Articles with headlines about UFOs or flying saucers in 25 US newspapers, 1985–2014<sup>1</sup>.

survey sponsored by the *National Geographic* (Pfeiffer, 2012) indicate that 36% of Americans think UFOs exist, while 77% believe there are signs that aliens have visited our planet.

The public's relative curiosity about and openness to the notion of extraterrestrial visitation historically has stood in stark contrast to the views of scientists. By and large, academic researchers have categorically dismissed ufology, "pseudoeology," and claims of alien contact as wrong-headed, irrational, and dangerous (Stoczowski, 2007). Natural scientists in particular have been mostly content leaving discussion about the matter to others, marginalizing talk of visitors from other planets as a subject unworthy of serious professional consideration. This silence and silencing has been dubbed by Schetsche and Engelbrecht (2008) a form of "social stigmatization" in the service of scholarly orthodoxy. Two US-based political scientists (Wendt and Duvall, 2008), indirectly inspired by Proctor and Schiebinger's (2008) project of "agnostology," have similarly argued that a "UFO taboo" within scientific and government circles has fed a prevailing ignorance about UFOs.

Ufologists and contactees have been well aware of their illegitimate status within most scientific and public policy circles. The institutional isolation of the former, however, has only served to reinforce their view that academic and political authorities are, at best, narrow-minded or, at worst, engaged in a deliberate attempt to hide information (Dean, 1998). The exclusion of ufology from academia therefore has left enthusiasts with two pathways for expressing their views and pursuing their interests, each historically segregating them further from the mainstream. On the one hand, similar to earlier spiritism and psychical research (Lux, 2013), UFO researchers have bypassed scholarly institutions by speaking directly to the general public via mass media. Leading figures in the movement have consulted with and given interviews to news and entertainment outlets, and across the world, a number of prominent writers promoting the notion of extraterrestrial visitation have become bestselling authors (Mayer, 2008). On the other hand, with their methods and claims shut out from formal scholarship, ufologists have founded their own parallel institutions, ones mimicking their academic counterparts. Local, national, and international groups publish newsletters and organize regular conferences with formal panels and articles. In turn, journals and magazines such as *Flying Saucer Review*, *Journal für UFO-Forschung*, *Lumières dans la Nuit*, and *UFO-Sverige-Aktuellt* have provided a forum for investigators to publish their findings and theories about cases and government policies.

The presence of conspiracy theory and paranormal belief within the ranks of UFO and alien contact proponents has reinforced the general impression that the movement is shrouded in

paranoia and mysticism (Partridge, 2003). These features, of course, are the antithesis of those commonly attributed to scientific practitioners, namely the ideal of scientists as objective, level-headed, empirically grounded materialists (Harambam and Aupers, 2015). Yet, research has shown that the UFO and alien contact communities are more diverse in their perspectives than many imagine. Studies conducted in the 1980s (Little, 1984; McIver, 1987), for instance, showed that a clear majority of ufologists at the time did not accept the hypothesis that UFOs were extra-terrestrial in origin. A more recent study by Denzler (2001) reveals that ufology provides an overarching rubric for a wide range of beliefs, ranging from the metaphysically speculative to the strictly materialistic.

For almost 70 years, the UFO and alien contact movements have served as a lightning rod for both critics of established science and debunkers of the paranormal alike. Well before the rise of science doubt movements disputing the existence of climate change or the safety of genetically modified foods (Achenbach, 2015), ufology was raising public challenges to the accepted wisdom of certified experts. As such, the history of both its claims and the scientific reception of these claims offer an instructive case for considering how mutual mistrust between scientists and a lay community is fostered and sustained. Rather than treating this distrust as a given, however, we would do better to examine the interactive processes that have gone into the making of that distrust. If there is a current of science doubt prevalent within the UFO and alien contact community, historical sources reveal that it has been made and maintained by actors and habits on all sides.

This article examines how the work historically conducted by ufology, government agencies, and the physical and human sciences all have contributed to sustaining a cycle of reciprocal suspicion among many involved. It first explores some recent scholarly perspectives on science doubters and the need for historical research in this area. It then examines how ufologists and government offices attempted to bring some sense to the UFO phenomenon in ways they deemed to be methodical, yet continued to foster a climate of distrust. This is followed by a consideration of how the academic sciences at first deliberately ignored the UFO phenomenon, but eventually began pursuing research programs in which witnesses and believers themselves became the objects of study. Finally, the conclusion discusses the ways in which mutual mistrust between ufologists, on the one hand, and state officials and scientists on the other were the product of their agendas and activities.

## I. Explaining science doubters

Expressions of concern about the persistence and growth of science doubt and denial have been especially pronounced since debate surrounding the so-called “science wars” of the 1990s. Successive editions of *Science and Engineering Indicators* have lent some support to the assertion that there is a current of science renunciation running through public opinion. Recent surveys (National Science Board, 2014), for instance, found that while there generally remains strong support for science and technology across the world’s publics, large percentages of individuals—in some countries, over 50%—are dubious that the benefits of modern science outweigh its harms. In the United States in particular, 41% surveyed in 2010 agreed that “we believe too often in science and not enough in feelings and faith,” while the number of Americans saying that astrology is “not at all scientific” declined in 2012 to slightly more than one half.

Science and technology studies scholars have been examining this disconnection for some time. This very journal has been a leading forum for articles on the subject of what Gerald Holton (Holton, 1992) referred to as “the anti-science phenomenon.” Increasingly, attention has been directed at investigating how prominent scientists and lobbyists—especially those with ties to the tobacco industry—have trafficked in promoting public doubts about scientific and medical findings that might harm business interests (Michaels, 2008; Oreskes and Conway, 2010). Seen from

this perspective then, doubts about science are the result of ignorance, bias, or both (Nisbet et al., 2015). To be sure, some (Miller, 2004) have been relatively sanguine about the status of science in the public's eyes, but there remains a persistent argument that substantive knowledge of science plays a decisive role in favorable attitudes toward it. This is despite the fact that Allum et al. (2008) in their meta-analysis of public surveys from a number of countries found there to be only a small, positive relationship between science knowledge and attitudes.

Others have counseled moving away from knowledge-deficit explanations for skeptical attitudes toward science to consider instead how scientists and scientific institutions interact with lay publics. Here, the focus has shifted to case studies that serve as opportunities to empirically examine how scientists engage in the kind of "boundary work" (Gieryn, 1999) that can contribute to a pattern of reciprocal distrust. Wynne's (1992) study of relations between Cumbrian sheep farmers and scientific and government experts after the Chernobyl nuclear power plant disaster is a good example of this. It demonstrates that the way science was presented in action—emphasizing standardization, universality of results, prediction, and control—led local farmers to increasingly get the "sense of being ensnared by an alien and unrecognizing combination of science and bureaucracy" (p. 296).

Ethnographic approaches to understanding the science-public opinion gap thus capture something that often has been missing in survey data: standing behind the terms "public" and "science" are a diverse set of actors and actions, ones that need to be disaggregated (Wynne, 2015). In short, these terms are nouns that are shorthand for verbs. Alongside surveys, then, there is a need for studies examining the changing sets of perceptions, practices, relationships, and meanings shaping both scientific and lay understandings of one another (Gauchat, 2011; Thurs, 2007).

## 2. From personal experiences to reports to data and stories

The UFO and alien contact phenomenon began with and has remained grounded in personal human experiences, specifically experiences deemed extraordinary by witnesses themselves (Clarke, 2013). Archival records provide countless examples of individuals who encountered something out of the ordinary in the skies. There was the man in San Francisco, for instance, who tracked several silvery, oval objects traveling at great speed overhead in August 1949. As he explained to authorities later (NA-PBB, NARA-PBB88-999-1000), "There was no evidence of exhaust, no effect on clouds, no visible light, and other than the shape of the objects, there was no means of aerodynamic support." Or there is the case of a Mississippi woman who was in her yard around noon in October 1949 and saw two oval shaped objects in the sky fastened together with something that appeared to be flexible. As she described it (NA-PBB, MAXW-PBB7-793-795),

They were high and going fast. They shined brightly like new aluminum would in the sunlight. The fastener shined like the oval objects. I could see the fastener sag between the ovals when they changed position. They would fly. One oval over the other one a few seconds with the fastener in a vertical position between the ovals. Then they would change again.

More often than not, fleeting occurrences like these left observers perplexed. "This was something that I have never seen before or since," one witness, a sergeant in the US Air Force, told investigators in December 1953 (NA-PBB, MISC-PBB1-87-91). "I have thought all the known quantities over in the case of these objects and arrive at a not too unreasonable answer. The answer is that these objects are Unknown, definitely and positively."

The man's incongruous wording is noteworthy, for it gets at an aspect of the UFO experience confronted by many who have claimed to have had paranormal encounters (Wooffitt, 1992),

namely an awareness that others would likely doubt the veracity of that experience. "I know what I saw, and I reported it through the proper channels," a retired colonel in the US Air Force wrote (NA-PBB, MAXW-PBB7-1274) the Foreign Technology Division at Wright-Patterson Air Force Base in 1966 about a sighting he had made. Journalist David Johnson was flying at around 11,000 feet in July 1947 on an assignment about UFOs for his newspaper when he claimed he witnessed a disk-like object performing a slow roll, which it broke off at about the 180° point. In a subsequent affidavit (NA-PBB, USAF-SIGN2-61-67), he explained, "I have worried over this matter a great deal since seeing it. I 'took myself aside' and said, 'come now, Johnson, don't be stupid.' But I cannot bring myself to the point of thinking I did not see anything."

Something that separates the UFO sightings above from the vast majority of sighting experiences is that they were reported to authorities. A survey of UFO sighters conducted in 1968 under the auspices of the University of Colorado (Lee, 1969) revealed that 87% of those surveyed reported their experience to no one other than family or friends. When asked what the "most important reason" for not reporting to authorities was, 40% cited "it was probably something normal that just looked funny for one reason or another," and 19% said they were "afraid of ridicule."

To become part of UFO and alien contact folklore, personally meaningful experiences have to be communicated to and recorded by someone in authority or with access to mass media. It is through these lines of communication that "sightings" become "reports" (Westrum, 1977). It is important to acknowledge, however, that reporting is a translational social process that necessarily alters the original experience. Witnesses must seek words, draw sketches, or present photos or film to somehow communicate what happened, while those listening have to decide on how best to elicit information from witnesses and to document the latter's contributions. Thus, UFO reports are the products of procedures that are subject to change and involve making choices about what information to privilege.

Operating on precedents from World War II, government officials responsible for tracking UFO sightings were especially interested in refining the ways in which reports were made, since the aerial phenomena were seen as posing security questions for military intelligence. Early on, however, there was little uniformity in reporting. During a wave of UFO sightings made over Sweden during the summer of 1946, for instance, Swedish intelligence officials received a great deal of their information about sightings from local police, newspapers, and letters from residents (Archives for the Unexplained (AFU), 1946). This pattern repeated itself over ensuing decades, and into the 1980s, local police and defense officials in Great Britain still consulted newspaper stories about sightings to gather details about them (United Kingdom National Archives (UKNA), ([1986] 1987).

Already in the late-1940s and early-1950s, US officials were vexed by what they perceived to be the dubious quality of information reaching them. In 1949, members of Project Sign (the first formal UFO investigative body of the US Air Force) attempted to bring order to a perceived chaos. In a summary report (NA-PBB, MAXW-PBB1-5-40) before closing in February 1949, Project Sign investigators took information from over 250 incidents, checked them against a list of variables—for example, object shape, direction of flight, local conditions, locations of nearby guided missiles and airlines—and used the data to diagrammatically illustrate patterns in chart and graph forms.

Project Blue Book, taking over the US Air Force's investigation of UFOs in 1952, sought to apply even more scientific rigor to its work. For a special report (NA-PBB, MAXW-PBB1-1229-1536) disseminated in May 1955, the team made a concerted effort to turn information that "consisted of impressions and interpretations of apparently unexplainable events, and seldom contained reliable measurements of physical attributes" (1234) into standardized data capable of being entered into forms and reduced to IBM punch-card abstracts. This included 1000 responses

to a standardized questionnaire mailed out to a sample of witnesses who had earlier written authorities. All told, 4000 reports of sightings were analyzed, using a systematic listing of factors by which individual details were coded. A standard scheme was then implemented for the consistent transfer of data to mechanized punch cards by multiple personnel.

As trackers of incidents, amateur ufologists also have been committed to finding ways to collect, store, and analyze information about sightings. Internationally, however, states only unevenly gave the general public access to government data and reports: for instance, while French and Swedish officials worked more or less collaboratively with UFO researchers, the United States, the Union of Soviet Socialist Republics, and the United Kingdom were mostly restrictive about access (Swords et al., 2012). These constraints led most UFO enthusiasts to consider government—particularly, United States—authorities unreliable or outright dishonest and to pressure officials to disclose classified information. Ufologists used their newsletters and journals, like *Just Cause* (published by Citizens Against UFO Secrecy) and *C-Com: Classified Communications*, as platforms for waging campaigns against state secrecy regarding UFOs and aliens.

Lay UFO researchers have also responded to their relative lack of access to government information by exploiting alternative sources. Especially common since the late-forties was the collection of clippings from newspapers and magazines on UFO-related stories. Items from mainstream media sources generally predominate within these collections, but it also has been commonplace for material from tabloids and the UFO and alien contact press to also appear. These clippings have provided key source materials for UFO investigators.

The personal papers of Austrian Luis Schönherr (d. 2009) (AFU, Luis Schönherr Collection) provide some insight into how one ufologist attempted to organize his own collection and readings by developing his own cataloging system. Schönherr kept a separate scrapbook with news clippings from mainstream media dating from 1947 to 1981. Alongside these clippings, however, it is apparent he was also reading ufology books and articles. Relying on all these sources, Schönherr created a card catalog of UFO cases dating back to 1500 BCE. Drawing no distinctions between sources, each case was given its own index card, with notes, bibliographical information, and cross-references duly recorded. All in all, Schönherr cataloged somewhere around 2000–3000 cases in this manner. Thus, both government authorities and ufologists relied directly on mass media for getting information about sightings.

That said, ufologists have not simply relied on second- and third-hand reports. By the 1960s, while local, national, and international organizations were forming, UFO groups assumed a directive role in trying to obtain eyewitness accounts as well as making their own first-hand sightings. Records (AFU, British UFO Research Association minutes of meetings (BMM), 1965–1967) from BUFORA from the mid-1960s, for instance, show that members attempted to raise the profile of the organization through public lectures, exhibitions, and advertisements, establish a 24-hour hotline, provide local press with a dedicated phone number, and create rapid-response teams for immediate follow-up after sightings. In addition, local branches began setting up so-called “sky-watches,” where groups of members would dedicate their evenings to observing the skies for any anomalous aerial phenomena. By the 1970s and 1980s, local and national UFO organizations were directly receiving UFO reports from witnesses (AFU, Soviet Letters Collection) and teams of investigators were being sent out to conduct fieldwork research at UFO and alien encounter sites (Gesellschaft zur Erforschung des UFO-Phänomens, 1983).

The gathering and distribution of so much information from multiple sources prompted many ufologists by the sixties and seventies to call for more efficient, rigorous, and detailed collection and storage of data. In the mid-1960s, British ufologists began setting up a system for coordinating investigations, vetting and training on-site investigators, and evaluating reports (AFU, BMM).

Attention was placed on setting up standardized protocols for observing UFOs and taking notes on reports, toward the goal of augmenting the ability to detect patterns across sightings and identify those cases to be the most promising.

Increasingly, for many ufologists, the key to transforming their field into a recognized science rested in standardizing the flood of information it had accrued (Blake, 1979). The growing accessibility of computer technology by the mid-1970s led a number of ufologists to develop codes for recording information that then could be entered into a computer database, thus allowing for quick retrieval and comparison of data. Many came to rely extensively on a system developed by University of Colorado psychologist, David Saunders. Saunders' *UFOCAT Codebook* (Saunders, 1977) provided a standard set of codes for entering data covering a wide range of aspects surrounding sightings not altogether different from that used by Project Blue Book. Unlike the US Air Force, however, Saunders' codebook collected its data not only from newspapers, but also directly from ufological experts and literature. By 1977, it was reported that the database had grown at an average annual rate of 10,000 entries.

While some ufologists followed the model of statistical analysis of large data, others took a different path: clinical casework. Here, the work of South Africa-born Cynthia Hind (d. 2000), an internationally renowned ufologist based in Rhodesia/Zimbabwe, was emblematic. For decades, Hind made a reputation specializing in extraterrestrial contact and abduction cases, publishing her findings in books (Hind, 1982, 1996), UFO journals, and the newsletter she edited from 1988 to 2000, *UFO Afrinews*.

Her personal papers indicate that she generally organized her workload in individual case files, each one focusing on a particular individual witness or an event. In those cases in which she became personally involved, Hind worked in a forensic manner. In a famous episode involving the alleged landing of UFOs in a schoolyard in Ruwa, Zimbabwe in September 1994, Hind interviewed the pupils who supposedly witnessed the event, took detailed notes on their descriptions, had them draw pictures of the vessel and its occupants, tracked down other potential witnesses, and compared timelines (AFU, Cynthia Hind Collection (CYH), Drawings and Articles on Ariel School, 1994).

In other instances, Hind went much further in drawing out witnesses (AFU, CYH, Case 1978). In June 1996, Hind was approached by an ex-Rhodesian soldier I will refer to as A., who requested her help in investigating an experience he had during his service in the late-1970s. A. explained to her that he had been abducted by aliens at that time and was subjected to violent and disturbing experiments. In a series of letter exchanges, Hind encouraged A. to recount more details, asking follow-up questions about things such as any smells he noted and whether the extraterrestrials moved their lips when communicating with him.

Her letters, however, go on to reveal that she understood her role to be not simply a chronicler of events, but also a kind of clinical caseworker who could make referrals. Writing A. later that year, she explained (AFU, CYH, Case 1978, 18 October 1996),

As usual, your letter was fascinating, with the new information. I will get this all together for you to make a story. I am sure you have many more recall events, but I would really like you to try and do some regressive hypnosis with someone of note. I have never believed in keeping my cases secret, and willingly hand them over for study to the top people in the field if I think they are worthwhile and I am sure yours is ... I know Dr. John Mack of Harvard University who specializes in cases like yours; also Prof. Leo Sprinkle of Laramie, in the USA; Budd Hopkins, Dr. David Jacobs, Joe Nyman, a clinical psychologist, Dr. Grey Woodman (all of the United States); John Spencer and Philip Mantle (BUFORA in the United Kingdom). These are all the top people in the world: could I pass on your case to them, not mentioning your name if you don't want me to, although they never reveal identities unless you agree.

Here then is the ufologist playing multiple roles: investigator, reporter, advisor, and counselor all at once. By no means have all ufologists been as directive as Hind, but the notion of seeking out and working cases was and remains ubiquitous.

Ufology journals, newsletters, and magazines have donated much of their space to in-depth analysis of compelling cases like A.'s. Over time, these compelling cases have become the stock-in-trade of ufologists. Indeed, since its beginnings, the field has developed its own canon of classical cases. Kenneth Arnold, Roswell, Barney and Betty Hill, Rendlesham, Betty Andreasson, Tunguska: to any seasoned UFO researcher, the names of people and locations like these immediately conjure up the stories associated with them, and the elements of these stories have become the subject of perpetual discussion and debate.

A great deal of the work ufologists have done, then, is to engage in a process—often unthinkingly—of turning what Barrick (1976) has called “migratory anecdotes” into stories, which in turn have sometimes grown into legends like Roswell (Saler et al., 1997). Cynthia Hind’s letter cited earlier shows this clearly in her remark to A., “I will get this all together for you to make a story.” One need not view this as a cynical tactic on her part, but rather see in it a key to understanding the distinctive allure of the UFO and alien contact phenomenon. Time and again, when both devotees and skeptics have reflected on what originally drew them to the subject of UFOs and extraterrestrials, most often they have spoken of being fascinated by the narratives surrounding persons or events (Hallet, 2005; Mack, 1994). Ufology’s traffic in storytelling can be seen then as an expression of a widespread perception among enthusiasts that stories more effectively respect the integrity of UFO and contact experiences than do aggregate data analysis or the categorical dismissal of claims.

Thus, the response of government investigators and ufologists to UFO sightings was to look for ways to translate these individual experiences into familiar forms of knowledge. From the start, state-sponsored authorities treated the phenomenon as a national security matter and relied on conventional methods of intelligence gathering. Their aim was to acquire information and evaluate its reliability in a cold war atmosphere where officials on all sides were dedicated to preventing secrets from being compromised by others (Garthoff, 2004). With the release of classified documents over the past decade and a half indicating their lack of any indisputable UFO artifacts for forensic analysis, governments primarily turned to statistical research, often keeping their sources and results secret.

On the other hand, ufologists generally were either not as single-purposed as their state counterparts or motivated to prove the extraterrestrial origins of UFOs. They supplemented official information with that from testimonial, press, fieldwork, and ufology sources, discriminating little between them. While some UFO researchers embraced statistical analysis, others were more inclined to engage in casework. In both cases, however, ufologists considered themselves to be conducting serious research drawing on established scientific and clinical methods, but fully aware they were conducting this outside prescribed professional channels.

### **3. From a science of UFOs to a science of true believers**

For two decades following the first mention of flying saucers in 1947, academic scholarship was mostly silent on the subject. When asked by journalists, a few astronomers, physicists, engineers, and meteorologists went on record to dismiss claims that UFOs were anything other than cases of mistaken identification or hoax (Eghigian, 2014a). Organizations like the Soviet Academy of Sciences rejected the study of UFOs and aliens out of hand (Platov and Sokolov, 2000). Writing in 1968 (Condon and Gillmor, 1969), American physicist Edward Condon attributed the relative lack of scientific interest in the phenomenon to the fact that



those scientists who are most directly concerned, astronomers, atmospheric physicists, chemists, and psychologists, having had ample opportunity to look into the matter, have individually decided that UFO phenomena do not offer a fruitful field in which to look for major scientific discoveries. (p. 2)

A closer look at developments in the United States, however, reveals that even there the scientific community did not entirely shun ufology. From the early-1950s through the 1970s, a number of academics took the study of UFOs seriously and regularly engaged with ufologists, including astronomers and astrophysicists William Hartmann, J. Allen Hynek, Donald Menzel, Carl Sagan, and William Powers, physicists James McDonald and Peter Sturrock, computer scientist Jacques Vallee, psychologist David Saunders, and sociologist Ron Westrum. Within this circle alone, however, opinions about the UFO phenomenon differed sharply: McDonald, for instance, firmly believed evidence pointed to the extraterrestrial origins of UFOs; Hynek came to argue that UFOs warranted serious scientific investigation, but was dubious about contactee stories; Vallee emphasized the psychosocial dimensions of UFO sightings; Sagan considered alien visitation improbable, but communication with extraterrestrials within the range of the possible; and Menzel rejected all claims of extraterrestrial visitors as baseless and founded on unscientific speculation (American Philosophical Society (APS), Menzel Papers, Boxes 13, 23; APS, Condon Papers, Box O.27).

These figures, however, were the exceptions at this time. Yes, the boundary separating academic science and ufology was porous in places. Scientists and amateur ufologists in the United States, however, widely understood the default position of American academia to be that the study of UFOs and alien contact lacked legitimacy. This perception appeared to be confirmed in 1968 by the final report (Condon and Gillmor, 1969) of a scientific commission on UFOs based at the University of Colorado and headed by Edward Condon, concluding that “nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge” (2). The commission, however, added that “rigorous study of the beliefs—unsupported by valid evidence—held by individuals and even by some groups might prove of scientific value to the social and behavioral sciences” (p. 6).

Though heavily criticized by ufologists and some former commission members, the final report represented a watershed in the history of UFO research. From this point on, the US Air Force dropped its UFO investigations and the natural sciences divested themselves of any serious study of UFOs and claims of alien visitation, save for those scholars associated with the Search for Extraterrestrial Intelligence (SETI) initiative. At the same time, however, a generation of sociologists, psychologists, clinical psychologists, psychiatrists, psychotherapists, and specialists in communications began to take up the subject for the first time. Flying saucers and extraterrestrials now became primarily the province of the human sciences.

This is not to insist that the Condon report was alone responsible for this shift in scientific research on UFOs. Sociologists in the 1970s, for example, were separately questioning science’s neglect of various forms of “rejected knowledge” (Wallis, 1979). Rather, the historical significance of the Condon commission’s work was normative and, thus, illustrative. The fleeting, unpredictable, and immaterial nature of the phenomenon led most academic scientists to doubt the ontological reality of flying saucers and alien visitors. Nevertheless, the sheer scale of UFO sightings begged for explanation, and Condon—similar to Vallee (Vallee, 1969)—pointed research in a direction that now appeared promising and respectable: focus not on the objects, but rather on the status of witnesses and believers, their backgrounds, personalities, social ties, and processes of perception, cognition, and belief.

By the 1970s, this line of research in the human sciences had developed in such a manner that it could only have been expected that researchers in the field would treat their subjects with a considerable measure of dubiety. As Pettit (2013) has shown, modern psychology’s research agenda was historically bound up in uncovering the sources of human self-deception. And

indeed, the strict segregation of the academic human sciences from the paranormal sciences in the early twentieth century contributed to and was informed by the study of deceit and illusion (Coon, 1992; Hacking, 1988; Parot, 1993). Even before any sustained research on the theme began after 1969, the only two major social scientific works on UFO witnesses and believers—psychologist Hadley Cantril’s study of public reactions to Orson Welles’ radio broadcast of *War of the Worlds* in 1938 (Cantril, 1940) and Leon Festinger et al.’s (1956) ethnography of a group of zealous followers of a UFO religion—understood their subjects to be victims of irrational thinking and behavior requiring explanation. “Belief” in both cases was taken as the dependent variable of interest, an expression of a dangerously blind or insufficiently critical faith. In turn, the psychologists attributed this inadequacy to a constellation of personality deficits and social circumstances.

A scan over the academic research landscape on UFOs and alien contact since 1970 reveals that this configuration of incredulity continued to have a profound impact, even decades later. Studies during this time have generally clustered around six lines of investigation:

- Surveys conducted primarily by sociologists about public attitudes toward UFOs, the social values espoused by believers in extraterrestrial visitation, and the social and economic backgrounds of UFO group members (Little, 1984; Melton, 1995; Zimmer, 1984)
- Psychometric personality assessments conducted by psychologists of both believers in extraterrestrial visitation and those claiming to have been abducted by aliens (Parnell, 1988; Swami et al., 2009)
- Studies by psychologists interested in psychophysics and memory who have attempted to account for the odd sensations, perceptions, and recollections associated with witnessing UFOs and with supposed alien abductions (Persinger, 1976; Spanos et al., 1993)
- Ethnographies carried out by cultural anthropologists of UFO and abductee groups, with a focus on so-called “UFO religions” (Denzler, 2001; Palmer, 2004; Partridge, 2003; Tumminia, 2005)
- Studies by social scientists and folklorists concerned with how UFO and alien contact reports get communicated (Campion-Vincent and Renard, 1990; Clarke, 2012a; Dmitrieva, 1997)
- Narrative analysis conducted by cultural studies scholars of popular works about UFO sightings and reports of alien contact, often focusing on folk conspiracy theories (Brown, 2007; Dean, 1998).

Outside of the work done by folklorists and some ethnographers then, the research on UFOs and alien contact conducted under the banner of the behavioral and cultural sciences has generally taken UFO-related beliefs and believers to be the *real* anomalies requiring explanation. Unlike some ufologists at the time who similarly began making human psychology the focus of study (Clarke, 2013), academic studies generally adopted a social deviance approach to their subjects, tending to either pathologize believers as psychologically aberrant or cast them in the role of ideological fanatics (Schetsche and Anton, 2013). These representations have not been lost on ufologists and contactees.

#### 4. Conclusion

The point of this foray into the history of UFO and alien contact research is not to weigh in on the question of whether UFOs are possibly extraterrestrial in origin. Rather, it is to use historical analysis to show that, regardless of the merits of scientific skepticism regarding UFOs and

extraterrestrial visitation, the ways in which scientists, officials, and ufologists have gone about their work have had consequences for how they all have understood one another. The air of suspicion that has hung over them has been one of their own making, yet most of the actors involved have remained unaware of its sources.

Dubiousness about the veracity of claims regarding UFO and alien sightings was and has remained the default position of state authorities and the academic community owing to the nature of their perspectives on knowledge gathering and the historical setting of sightings. Emerging on the heels of World War II and playing out over the course of the cold war, reports of UFOs were quickly folded into the enterprise of intelligence analysis by governments. Analysts were accustomed to questioning the reliability of information, focusing on national security implications, and qualifying their conclusions. The public—including most civilian scientists—was to be informed of any results in many countries strictly on a need-to-know basis. Scientists, on the other hand, have not been restricted to considering only the security implications of unidentified aerial phenomena, but the lack of incontrovertible material evidence of UFOs and extraterrestrial visitation only reinforced the sense that the phenomenon was more the province of anthropology, psychology, and sociology than that of astronomy and physics. With a long history of researching and controlling for deception and self-deception, the human sciences by and large have considered witnesses and believers to be, like other human subjects, suspect.

This had a chronic impact on members of the UFO community, particularly in relatively restrictive settings like the United States. Confronted by the apparent furtiveness of officials, the disdain of most physical scientists, and the seemingly skeptical gaze of behavioral researchers, witnesses and ufologists were only reinforced in their judgments that their experiences were being disparaged, that there was a concerted effort to exclude them from official forums, and that they needed to place their trust mostly in one another. Ufologists' persistent reliance on their own communities and their sources of information, however, only bolstered the conviction of most academics that the research of UFO enthusiasts was hopelessly flawed.

Most ufologists have been especially sensitive to the fact that scientific cynicism toward them seems to point to a hierarchical asymmetry at work, namely that scientific forms of objectivity are assumed to be ideal and natural and not scrutinized as in some way psychologically weird or socially fabricated (as is the case with UFO believers). It is not the case, however, that most ufologists have been anti-science. On the contrary, their parallel ways of collecting, analyzing, and distributing information were inspired by academic precedents and can be seen as expressions of fondness and respect for science. In fact, it is possible to see in their actions less a denigration than a glorification of the scientific enterprise. By and large, their disdain has been reserved for scientists, not science. To academicians, of course, ufologists are only amateurs "playing at" being scientific researchers. Be that as it may, ufologists cannot be indiscriminately accused of being ignorant of or antipathetic toward science as a social practice.

What arguably has been most frustrating for UFO and alien contact witnesses has been the way in which their personal experiences generally have been handled by the scientific community. As noted earlier, witnesses often described their encounters with UFOs as remarkable, uncanny events, experiences that punctured the routine of everyday life. For many, but certainly not all, the experience was meaningful and raised open-ended questions about themselves and the world around them (Jung, 1958). Dating back to the Condon commission, however, scientific researchers have consistently attempted to relegate extraordinary mysteries to the status of mundane puzzles by turning these experiences into numerical values and fitting them along a continuum of human perception, cognition, and behavior. With personal experiences repackaged in scientific terms and values, it is perhaps not surprising then that many ufologists have found in storytelling a more effective way to compellingly communicate the awesome nature of the phenomena encountered.

Admittedly, scientists for the most part have not questioned the *sincerity* of most UFO and alien contact witnesses and enthusiasts. The fact, however, that the former express little confidence in the *authenticity* of the latter's claims has provoked a moral outrage—especially within the alien abduction community—akin to that conveyed by victims of sexual violence. Over the years, this has helped give rise to a series of self-styled crusaders within the movement, such as Donald Keyhoe or John Mack, demanding authorities acknowledge the claims being made (Eghigian, 2014b).

The rise of a science of UFO belief also may have contributed in one other way to the making of the UFO and alien contact phenomenon. First widely coming to light during the second half of the sixties, stories of alien abduction and experimentation proliferated at the same time science began treating witnesses and believers as research subjects. It would be facile to reduce the former to the latter. It is at least not unreasonable, however, to consider how these two innovations may comment on one another and speak to the different regard which some scientists and laymen have for turning human beings into scientific objects.

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## Note

1. The 25 newspapers were selected on the basis of (1) being indexed by NewsBank with records dating back to at least 1985 and (2) their geographical and market diversity. The newspapers selected were: *Akron Beacon*, *Atlanta Journal-Constitution*, *Christian Science Monitor*, *Columbus Dispatch*, *Daily Breeze*, *Daily News of Los Angeles*, *Dallas Morning News*, *Houston Chronicle*, *Lexington Herald-Leader*, *Miami Herald*, *Morning Call*, *The Oklahoman*, *Omaha World-Herald*, *Orlando Sentinel*, *Philadelphia Daily News*, *Philadelphia Inquirer*, *Providence Journal*, *The Record*, *Richmond Times-Dispatch*, *Sacramento Bee*, *San Diego Union-Tribune*, *San Francisco Chronicle*, *San Jose Mercury News*, *Seattle Times*, and *Wichita Eagle*. The spike in the number of articles published in 1997 was due to coverage of the mass suicide of members of the UFO religious group, Heaven's Gate, in March of that year.

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