

Trust No One: UFOs, Anthropology, and Problems of Knowledge

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There are unidentified flying objects. That is, there are a hard core of cases—perhaps 20 to 30 percent in different studies—for which there is no explanation... We can only imagine what purpose lies behind the activities of these quiet, harmlessly cruising objects that time and again approach the earth. The most likely explanation, it seems to me, is that they are simply watching what we are up to.
[Margaret Mead. 1974. UFOs - Visitors from Outer Space? Redbook 143:57-58, Sept.]

If the alien abduction program can be seen as a kind of physical anthropology being performed on humanity, then in the same way the ufological community can be seen to be engaged in its own ethnological investigations of who the aliens are and how the different types can be categorized and why, or even whether, they are constituted as they appear to be.
[Christopher Roth. 2005. Ufology as Anthropology: Race, Extraterrestrials, and the Occult. *in* E.T. Culture: Anthropology in Outerspaces. Debora Battaglia, ed. Durham: Duke University. Pp.38-93.] [~13,300 words total]

Introduction

When most people learn that I study people who investigate, experience, or otherwise engage with unidentified flying objects (UFOs), the first and most persistent question I am asked is: 2 "So do you believe in UFOs?"¹ This used to cause me a great deal of irritation. It was obvious to me that what they "really" wanted to know was whether, in my opinion, there was any justification for believing in the material reality of UFOs. As far as I was concerned, my opinion on the ontological status of flying saucers was irrelevant. If they were materially real, then my (dis)belief made no difference. Besides, I didn't need to believe UFOs were physical phenomena in order to study other people who believed it. Yet however I attempted to redirect the question, it never went away.

This question indicates something very important. In pursuing the subject of UFOs from whatever angle we choose, we soon find ourselves up against very powerful ontological and epistemological boundaries. Are the phenomena "real" or not? In what sense? How can we know anything about them definitively, or even substantially? To what degree is believing in UFOs intertwined with seeing them? with thinking about them? These subsidiary questions too have not gone away despite nearly six decades of investigation.

¹ Numerals in boxes refer to slides in PowerPoint presentation.

This confounding nature of UFOs has led many of those who pursue the study of UFOs—often (self-)identified as 'ufologists'—to seek evidence that will clearly show UFOs to be objectively real and ufology to be legitimately scientific. The bulk of the evidence at their disposal lies in reports produced by human witnesses. Despite the persistence of sighting reports and the patterns that emerge when those reports are compared, ufologists are rightly critical of eyewitness testimony for all the reasons familiar to cognitive science (Smeets et al. 2006). Lacking a saucer on the White House lawn whose proverbial tires they could kick, the more hard-science ufologists feel they must gather data that are as independent as possible of the qualities that complicate human memory and reporting, data that can corroborate or augment sighting reports. Thus they seek evidence from sources that are better suited to the methods and epistemology of mainstream Western physical sciences: ³ the outputs of technological devices (still and video cameras, radar, electromagnetic sensors) and changes in physical artifacts.

Yet even with these seemingly more objective data sources there remain two crucial complications: (1) an unavoidable need to *interpret* device outputs; and (2) our increasing ability to *manipulate* those outputs. Furthermore, if a scientific approach to the evidence is required, and the evidence is directly or secondarily produced by humans, there are plenty of mainstream sciences that provide techniques for dealing with humans. Anthropology, to name just one social science, has had long experience in dealing with issues of knowledge, belief, memory, and evidence that could profitably be applied to the matter of UFOs. Why is anthropologists' input irregularly solicited, if at all, even when prominent ufologists have been calling for more sensitivity to the cultural, historical, and microsocial contexts for UFO reports? Why is ufology barely on anthropology's radar, despite a long-standing web of affinity and commerce that is not generally acknowledged within either community?

What follows is an ethnographic and epistemological investigation of UFOs and their investigators. It takes its cue from the call by leading ufologists to examine the unavoidably human core of UFO data. It also responds to the reflexive demands of philosophy of science to pay close attention to our tools for knowing. What does the assumption that our devices are more trustworthy reporters than we, their makers—coexisting with the equally widespread suspicion that those devices can increasingly easily be made to lie to us—say about the historical moment, the cultural matrix, and the systems of power relations in which UFOs (and we ourselves) are embedded? What can representations of UFOs, and debates over their veracity, lead us to understand about the nature and politics of knowledge?

The strength of ethnographic studies is that they are usually grounded somewhere, and pay close attention to the concrete particularities of that context. ⁴ I could very easily have situated this examination in the Valley of the Sun, given the wealth of documentary material available; I will leave that fascinating task to a later speaker (Kitei n.d.). Considering the unfolding events in my home base of Chicago (i.e., the November 2006 O'Hare Airport sighting), I could have set up shop there, also. Instead I want to focus on the lively and on-going UFO scene in Mexico. ^{5,6} There are two reasons for this. First and foremost, I have devoted considerable effort to studying this subject; it was a major component of my dissertation fieldwork (Cook 2004) and remains a continuing focus of my research. But also, examining UFOs in another cultural context will allow us to ask questions that would not be possible if our attention remained restricted to the US. Are UFOs truly global and panhuman? Do they have the same presence or role in every culture? Does everyone interpret or study them in the same ways?

Though this paper will deal with UFOs, I will persist in focusing on those who study UFOs rather than the UFOs themselves, for several solid anthropological reasons. ⁷ First of all, anthropology

does not provide the tools to adequately pass judgment on the objective reality of UFOs, whatever it might ultimately be. However, it has a fairly sophisticated toolkit for dealing with how people construct and inhabit their conceptual and social worlds. Whatever other ontological status they have, UFOs exist as social facts: that is, they exist insofar as people think about them, communicate with them, act by reference to them. Documentary evidence, like the photos and videos in the museum exhibit and in this presentation, certainly exists. Yet how were the images produced? What makes them evidence? Interpreting, meaning-making, debating—all of them requiring humans.

Second, there is a relatively discrete group of people operating within and elaborating the UFO field. By focusing on them, we can connect UFOs to many other phenomena and fields, providing a context and, indeed, a legitimacy that they are often denied. Thus people are central to the UFO field however we look at it.

In a further self-reflexive twist, I will use this anthropological discussion of UFOs to examine anthropology itself as an anomalous scientific discipline. Why, if they claim to offer a powerful and comprehensive understanding of humankind, do anthropologists lag behind economists, political scientists, even psychologists as recognized sources of valid scientific knowledge? Is this a function of their subject matter (humans)? of anthropologists' approach to it? of the general values of societies that produced anthropology? Does the position of anthropologists in a hierarchy of expert knowers vary between societies or cultural milieux—e.g., the US v. Mexico? Why?

Approaching UFOs Anthropologically

A complication of addressing UFOs using anthropology is that they have become such a fixture of popular culture in so many societies that it requires a good deal of effort to get a critical distance from which we can understand them as social facts. What follows is my attempt at synopsis by drawing out some important themes or patterns.

⁹ The coming of the UFOs is conventionally dated to the immediate post-WWII period, thus to the origins of the Cold War in Western Europe and North America. Immediately prior to this, during the hottest parts of the Second World War, combatants on both sides reported anomalous aircraft whose presence could not be attributed to either Allied or Axis fleets. These so-called "foo fighters" were succeeded after VE Day by equally mysterious and impressive "ghost rockets" in the Scandinavian countries, where fears of Nazi V2 attacks remained strong.

But 1947 figures in most histories of UFOs as the originary moment, thanks to two seminal events: civilian pilot Kenneth Arnold's widely published report of nine craft skipping "like saucers on the water" over Mt. Rainier WA; and the hurriedly published and equally hurriedly retracted report that the US Army Air Corps had retrieved the wreckage of a "flying disk" that crashed near their Roswell NM base (Jacobs 1975). Between them, these two events cemented the central image, the terminology, and the perduring political character of the UFO field, all of which have been elaborated through successive waves of sightings and media(ted) attention. However, it was not until the early 1950s that the so-called "extraterrestrial hypothesis" (i.e., that UFOs, or "flying saucers," were alien spacecraft) became the dominant explanation in North America; prior to this, civilian and especially military actors considered the earthly "enemy technology" explanation equally viable (Peebles 1994).

Since this beginning, UFO reports have been fitted into narratives of infiltration and invasion that were already circulating in Western art, literature, and popular entertainment (cf. Méheust 1978). As commentators including anthropologists (Mead 1974) noted, the intelligence(s) behind UFOs seemed to be observing humans intently, if sporadically. Their appearance at this historical moment, in particular their presence near military bases and

weapons tests, indicated for these commentators a grave concern with human atomic activities. Their appearance over sensitive sites, and their ability to evade close scrutiny and even hot pursuit, posed serious national security questions for those charged with such responsibilities. UFOs, as reports or as potential craft, constituted a threat requiring military-government investigations, and not only in the NATO and Warsaw Pact nations. That these investigative projects were frequently also undertaken as public relations operations (e.g., to convince civilian populace and authorities alike that the situation was under control), or to unclog vital communication lines in case of a "real" threat, should not mislead us as to the seriousness with which UFOs have been treated by armed forces and government agencies in many countries. The multiple rationales for UFO investigations serve to highlight the variable credulousness and persistence of these official projects; for instance, compare the US Air Force's Project Blue Book to the French space agency's Groupe d'Études des Phénomènes Aérospatiaux Non-identifiés (Dolan 2002). It is also worthwhile in this context to note just how long and how persistently the US UFO field has engaged with a "paranoid style" of political thinking (Hofstadter 1965, Barkun 2003), reflected in accusations of secret government knowledge and accounts of threatening visits from quasi-official "Men in Black" (see Keyhoe 1950; Barker 1956).

From these early Cold War beginnings, UFOs have had an international distribution. ¹⁰ Reports, folklore, and (parascientific) study have spread across the world, though not everywhere equally or with precisely the same pattern. From the beginning, also, UFOs have been accused of serving as a seemingly technoscientific harbinger of or catalyst for a reversion to irrationality (cf. Raschke 1989), or at the very least of being one more instrument of American cultural imperialism (cf. Barclay and Barclay 1997). If in fact UFOs have been globalized in the same manner and through the same channels as other elements of Western consumer culture then, like these other globalized cultural materials, UFOs do not overwhelm and replace local cultural patterns. Rather, as Appadurai (1996) and others indicate, globalized materials are readily adapted by many peoples into existing local systems of meaning and organization, though not without effecting some changes. For ethnographic treatments of UFOs in their proper "glocal" context, see Platz (1996) on Armenia and Cook (2004) on Mexico. Whatever the merits of the above charges, and however we might assign the cause-effect responsibility, the temporal, geographical, and cultural distribution of UFOs remains the key issue and an open research question that will take many scholars in many disciplines to answer.

Early on, scholars in the social and behavioral sciences (e.g. Jung 1991[1958]) noted the heavy symbolic content of UFO reports and lore, indicating that UFOs—whatever their ontological status—provided a fascinating window on continuity and change in contemporary sociocultural systems. The aliens assumed or revealed to be piloting flying saucers functioned equally well as hi-tech devils by seducing our attention or tormenting our bodies (cf. Weldon & Levitt 1976), as angels by (re)connecting us to a populated cosmos and its divine center (cf. Graham 1975), and as tricksters by simply perturbing our increasingly secular-rational worldview (Raschke 1991, Thompson 1993). The flying saucer itself provided a symbol of divine power and infinitude appropriate for Space Age humanity (Peters 1976). Even if there had been no scholars offering these analyses, an early and on-going connection to so-called "contactees" and their attempts at creating UFO-inflected religious movements (Festinger et al. 1956; Lewis 1995, Partridge 2003) would have solidly linked UFOs to the religious field anyway.

Research on contemporary UFOs led some investigators (mainly in Europe and North America) to mount a retrospective search for prior evidence of alien involvement in human history. Literalists (e.g. Trench 1960, von Däniken 1969, Sitchin 1976) reinterpreted the history and mythology of all societies to suggest an unfolding extraterrestrial pageant, stretching from the engineering of Homo sapiens and our early civilization to its culmination in our alien creators' possibly imminent return. Folklorists (e.g. Bullard 1989, Rojcewicz 1995) fit UFOs into

larger patterns of encounters with various nonhuman Others; in this treatment, stories of alien contact are either fairy tales in a new guise or refractions of an enduring but recondite intelligence that is intimately entwined with humans.

Holding UFO reports and lore up to comparison with myths and folktales highlights a crucial and yet very tricky interdependence between UFOs and popular culture, ^[11] particularly the mass culture of the 20th century (cf. Curran 1985, Lewis 2000). Stories of aliens and alien-human contact appear in (science) fiction well before the diffusion of ostensibly truthful reports of such contact, though stories and reports have both benefited from saturation treatment by the culture industries of many societies. Ufologists themselves have noted a suspicious "tracking" between the state of the art in earthly technology and the appearance of the saucers; despite the persistence of some shapes (cigars, nocturnal lights, daylight disks), there has been a shift from the hubcap-like saucers of the 1950s to the black triangles of the 1990s (Brookesmith 1995). Perhaps the foundational case for reported alien abductions, the narrative(s) of Betty and Barney Hill in 1961, reflected imagery (and cultural ideologies [cf. Roth 2005]) to which the professed abductees had easy access—for example, a 1963 *Outer Limits* episode that "triggered" Barney's recall featured alien beings not unlike those he recounted under hypnotic regression (Kottmeyer 1990).

There are also provocative patterns in such things as the contents of UFO reports and the treatment of those reports that suggest (to social scientists, at least) a certain cultural variability. For instance, US contact reports most often mention short, spindly "gray" humanoids with huge heads and eyes, while European reports tend to feature tall, blond humanlike "Nordics", and Latin American reports frequently contain violent hairy dwarfs or, as in the past decade-plus, nocturnal vampires like the Caribbean *chupacabras* or the Brazilian *chupa-chupa* (Bowen 1968, Vallee 1990). Does this mean that alien contact is some kind of culture-bound syndrome, comparable to *pibloktoq* (arctic hysteria) or *latah* (cf. Stewart 2002)? In good agnostic social-science fashion, I simply note the correlation without imputing causation (which would in any event require research, not a simple assertion).

The Struggle for a Science of UFOs

Along with speculative and analytical commentary, news and entertainment media production, and military investigations, UFOs from very early on inspired a species of avocational, quasi-scientific research that has come to be known as ufology. Individuals and "saucer clubs" had engaged in investigations of sightings. However, ufology proper emerged with the first civilian organizations: Aerial Phenomena Research Organization (APRO), National Investigations Committee on Aerial Phenomena (NICAP), Ground Saucer Watch (GSW), and the later Mutual UFO Network (MUFON) (Jacobs 1975). "Proper" in that these groups brought together scientific and technical specialists as well as likeminded nonexperts, and they coordinated, funded, and publicized research that they intended to be taken seriously by the scientific mainstream.

One basic yet crucial task for a scientific ufology was to clearly define the phenomena under investigation. ^[13] The term UFO itself came from the official US military investigators, and has never quite sat well on the highly variegated contents of reports (which often refer to things neither flying nor object-like). The term "flying saucer," while evocative, fits the actual parade of cigars, spheres, lights, triangles, and fireballs even less well. Most definitions settle on the observation and/or recording of an aerial phenomenon that is interpreted as anomalous to the point of uncanniness. J. Allen Hynek (1972)--respected astronomy professor, Project Blue Book's science advisor, and founder of the Center for UFO Studies (CUFOS)--termed this "high strangeness." Not everything initially classified as "unidentified" remains so. In fact, investigators on all sides of the field seek to weed out the true anomalies from misidentifications and hoaxes.

However they do that in practice, they tend to concur on a statistically significant residuum of 5-10% of cases that cannot be easily or conventionally explained (Hall 1997[1964]). Where skeptics/"debunkers" and ufologists/"believers" part company is on whether that residuum reflects conventional phenomena with too little information to be conventionally explained or in fact represents a genuine but unconventional phenomenon.²

[14] Once knowns were removed from the pile, the next task for ufologists was to classify the reported phenomena. Again, Hynek provided a scientific grounding for the ufological taxonomy, categorizing by type of phenomenon—e.g., Nocturnal Light, Daylight 'Disk'--and proximity to the observer--the Close Encounter scale, from nearby aerial approach (CE 1) to landing (CE 2) to physical contact with object and/or humanoids (CE 3).³ Just to make a scientific study of UFOs more difficult, in addition to the plethora of UFO shapes, colors, and sizes, there has been a shift over time in the types reported, as well as fluctuations in numbers of reports and in public (abetted by news media) interest. Yet ufologists have pointed to the persistence of several patterns in the data: sighting locations (frequently periurban), times (late evening and very early morning), and under-reporting by witnesses (cf. Vallée and Vallée 1966; Rogerson 1978; Ballester Olmos and Guasp 1981) are just three.

The emergence of ufology, while interesting in and of itself, holds further interest for social scientists in how it highlights a crucial aspect to contemporary life, one increasingly (yet still unevenly) experienced everywhere in the world: why should UFOs call for a nominally scientific response, particularly considering how they inspire folkloric and religious responses? [15] Why not a metaphysics? A theology? That there had to be a science of UFOs (or a science of anomalous creatures before that, or a science of psychic phenomena before that) attests to the ubiquity of Science as a symbol, an institution, a bloc of technical experts, and a source of authoritative knowledge. That it is variously classified as "folk science" (Cross 2000), "deviant science" (Dolby 1979), "cryptoscience" (Westrum 1982, Truzzi 2000), "pseudoscience" (Shermer 2001), and "anomalistics" (Bauer 2001) attests to the ability of the several mainstream scientific disciplines to marshal stigmatization against ufology and other marginalized pursuits, controlling access to their ranks, their epistemic authority, and their sources of funding and political power. That this science involves mainly people not trained in any scientific discipline or research method highlights the increasing specialization and professionalization of the sciences, to the point that ufology is one of the last resorts for amateurs to do anything approaching scientific work (Milligan 1988, Denzler 2001).

The combination of nonexpert personnel and nonstandard subject matter give ufology and other heterosciences (Cook 2004) a similar character, or at least comparable positioning. To begin with, as a research field, UFOs have no designated or paradigmatic discipline. It is far from clear whether physics or astronomy or psychology or theology might provide the most appropriate approach, because each provides insights into the phenomena. In fact, Hynek and Vallée (1975:71) note a curious game of "hot potato" among mainstream scientists regarding UFOs—curious because most other new research fields have attracted competition for priority in research, publishing, and funding, yet no one within the mainstream sciences wants to be publicly associated with the stigmatized topic.⁴ Fuller's comment that "a disciplinary boundary can be drawn only at the risk of excluding other possible disciplines" (Fuller 2002:198) has a bearing here. Parapsychology is an interesting contrast, as it is virtually alone among

² Hynek (1972) insisted that, for these genuine "unknowns," the stronger the data, the stranger the report.

³ Once alien abductions took center stage in US ufology, CE 4 (physical abduction) and CE 5 (psychic contact) were added, though not all ufologists agree on either the legitimacy of abduction reports or their institutionalization in the Hynek taxonomy.

⁴ Yet many are curious, and they exercise their curiosity in private or on their own time.

heterosciences in possessing university laboratories and endowed chairs, mainly thanks to some powerful patrons (cf. Broughton 1991).

The result is that ufological personnel are drawn from quite a few fields and backgrounds, and ufology itself is characterized by a methodological and interpretative eclecticism. To pursue the subject, ufologists need to be as polymathic as possible, having some familiarity with a range of natural and social sciences (Jaspersen 1982, Rojcewicz 1984, Manero 1994, Roth 2005). Thus, while some investigative manuals exist (e.g. Coomer 1999, MUFON n.d.) and some groups offer more or less detailed training, there is no standardized career preparation or certification or even code of ethical conduct that applies across any ufological community (Spencer 1988).

[16] Due in part to the interdisciplinary nature of the UFO field, which violates some extremely important boundary-work by conventional scientists (including the science/ religion division), no mainstream venues will accommodate research on UFOs. This has produced two results crucial to understanding ufology and other heterosciences. First, it has spurred the creation of parallel institutions for research, and some measure of professionalization (e.g. MUFON), and for diffusion and dialogue (e.g. the Society for Scientific Exploration and its flagship journal). Second, it has led ufologists and their analogues to operate in public venues, particularly in the media of communications--TV, magazines, website—and to reach out to nonexperts for credence and financial support. Both avenues for heteroscience simply confirm the mainstream stigma that UFOs were never truly scientific in the first place.

On the matter of funding, no small matter when it comes to research, it is critical to note that there is no sure way to make a living in UFO investigation (cf. Pope 2000). The demonstrable fact that a few ufologists can (e.g. Stanton Friedman, Jaime Maussan) does not obviate the difficulty. Unless a wealthy patron like the late Laurence Rockefeller (cf. Sturrock 1999) can be secured, there are hardly any other sources for research grants. Ufology remains unavoidably avocational and unprofessional (Hynek 1972, Blake 1979, Westrum 1983). Those who pursue it must therefore be entrepreneurial--publishing books, lining up speaking engagements, creating websites for self-marketing--even while holding down a regular job. This raises another catch-22: the gatekeepers of mainstream Science can accuse ufologists of fundamentally mercenary rather than scientific motives (Randle 1999), ignoring the absence of conventional funders and the hurdles to contributing to "normal science" (both of which the gatekeepers had a major hand in ensuring). Considering the need to market one's research to get funding, get published, and get a job in most conventional disciplines (source), particularly with the accelerating corporatization of academia and "pure" science research, the stigma against entrepreneurialism seems at the least disingenuous.

In concert with a sociology of ufology, we should also consider the epistemology of ufology—what constitutes proper knowledge, what passes for proper knowledge claims. We have already discovered ufology's internal diversity of personnel, methods, and interpretations, all of them comparable to other "anomalistics" (Bauer 2001). It exhibits a diversity of ufological "schools" or "epistemic cultures" (cf. Knorr Cetina 1999) with different standards for research and information-sharing (which they are usually too weak to enforce). US ufology divides between a positivistic, hard science camp and a postpositivist, humanistic, latently esoteric camp (Vallée 1990, Roth 2005), while European and Latin American ufologies include prominent sociological and folkloric camps (Vallée 1992).

What *can* be known about UFOs is limited by the fleeting and bizarre nature of the phenomena, which ufologists readily acknowledge. They cannot subject UFOs to fixing or manipulation in a laboratory setting except through reports and recordings, which are but representations of the phenomena themselves (Vallée 1974[1965]:vii). This means ufology is unavoidably field-based, though this does not of itself make ufology unscientific; consider the many other field sciences--geology, astronomy, and anthropology among them. For their data

ufologists must rely heavily on interpreting, forgetting, suggestible eyewitnesses who are usually not concerned with collecting the kinds of data of greatest importance to scientific ufologists (Hynek 1972:231). As Hynek remarks, unlike laboratory-bound physics, which doesn't inspire deep public understanding or interest, the raw data of ufology come from the general public and is of great interest to them (Hynek & Vallée 1975:176). The more hard-science among the ufologists continue to express some annoyance at having to deal with eyewitnesses. To my mind this is probably why so many journalists (e.g., John Keel and George Knapp in the US, Pedro Ferriz and Jaime Maussan in Mexico) have been drawn to the field. The nature of UFO data means that, while it meets some legal standards for evidence, it falls short of scientists' standards (Story 1981:244-245), yet another strike against ufology.

The bizarreness of UFOs extends to the very point where the data are generated. Simply put, UFOs do not make totally random appearances; they seem to respond to (and perhaps even require) observers. Witness the high number of reports from military pilots in which UFOs elude their pursuers and either disable or evade the pilots' weapons systems (Hall 1997[1946]), or the prominence of temporary amnesia and "screen memories" in abduction cases (Mack 1994, Jacobs 1998). Some ufologists invoke the equally mysterious phenomenon of consciousness—human or alien—to account for the elusiveness of UFOs (Dormer 1997). This has fed some iconoclastic calls for modifying or even abandoning the Western scientific paradigm when approaching UFO phenomena (cf. Mack 1994), which only adds to the tension between hard-science and humanistic camps, especially in the US.

The slippery epistemic and ontic nature of UFO phenomena has perpetually invited a connection to the religious field that no amount of effort or disavowal by scientific ufologists (e.g. Hynek 1980, Randle 1999) can erase. In fact, the magical yet mechanical UFO has proven itself a powerful root metaphor for a parade of technospiritualities in the twentieth and twenty-first centuries (J. Lewis 1995, Partridge 2003). ^[17] On the one hand, UFOs seem to unite cognitive and emotive realms that many people feel have been sundered by the rapid secularization of their societies, particularly by the replacement of religions by (western) science as an "epistemic arbiter" (Cook 2004).⁵ Also, on many levels UFOs evade solid rational-scientific knowing, making them more readily grasped by (or at least addressed in terms of) belief (Jung 1991[1958], Peters 1976, Thompson 1993). Accusing ufology of itself being, underneath the trappings of science, essentially cryptoreligious (cf. Cross 2000)—which is the "nuclear option" of normal science's gatekeepers—continues to be the bane of ufologists.

Seeing is Believing: Debates on "Ufotos" as Evidence

The conventional dividing line in Western epistemology, that which separates subjectivity ("believing") from objectivity ("knowing"), is drawn in no small part by evidence (Pojman 1995). Ufologists have plenty of data at their disposal, but how much of it constitutes evidence? Artifacts produced by recording devices can be portrayed as relatively free of human perceptual and interpretive shortcomings, thus more "objective" than eyewitness reports. Furthermore, those artifacts are more amenable to scientific tools and techniques, thus making them (ufologists hope) more persuasive among mainstream scientists. Technological (that is, nonhuman) sources of data are therefore critical for scientifically oriented ufology, and for that reason are hotly contested as evidence.

^[18] Such artifacts have existed since the modern origins of UFOs. Ghost rockets and foo fighters, saucers and mother ships, triangles and black helicopters have all been caught on still and movie film (Stevens and Roberts 1985). Technically, "UFO" photos even preceded UFOs:

⁵ This arbiter is elsewhere (S. Fuller 2002) referred to as the "science role."

Mexican astronomer José Bonilla shot and published photographic plates showing fleets of dark objects crossing the solar disk in 1883 (Benitez 1982), and a Chicago resident submitted to local newspapers his photo of one of the airships that plagued the Midwest in 1897 (Jacobs 1975). Anomalous "blips" or returns have been noted on radar, which were especially discomfiting when connected to visual sightings as in the 1952 Washington DC-area overflights (Hall 1997[1964]). Sightings have also been accompanied by physical effects like scorched ground, plants, and even people, as well as melted or magnetized equipment (Rodeghier 1988). UFOs have even been connected to anomalous (though never clearly otherworldly) material objects—metallic slag, translucent fibers known as "angel hair," and wounds on or even "implants" in experiencers.

When assessing this material evidence, particularly photographs, ufologists are quick to point out that none is sufficiently credible evidence on its own. They often do this to preempt criticism from debunkers and other gatekeepers. "The existence of good motion picture footage or a series of still photographs is never going to be sufficient to prove that flying saucers are of extraterrestrial origin. They are, however, evidence that something extraordinary is happening" (Randle 1999:125). Some particularly generous debunkers concur "that there is substantial evidence to support the claim that an unexplained phenomenon—or phenomena—is present in the environs of the earth, but that it may not be 'flying,' may not always be 'unidentified,' and may not even take the form of substantive 'objects'" (Baker 1996[1972]:190). Even the most ardent proponents of ufology agree that "[p]hotographs of UFOs have always been the least reliable of potential evidence for the existence of this exciting phenomenon... But photographs are a desirable adjunct to other observable data" (Stevens & Roberts 1985:9). As NICAP adviser, and professional photographer Ralph Rankow, cautioned: "If model airplanes can be photographed to look real, then so can model UFOs. This does not mean that there are no real airplanes, just because we are easily able to fake a picture to represent one. In the same way, the ability to fake a UFO photograph in no way implies that these things do not exist" (in Hall 1997[1964]:86; see also Mosbleck 1989:211).

"A photograph," according to Hynek, "is just a UFO report, but in a different form, and like a written report depends entirely on the credibility of the persons offering it" (Hynek 1997[1977]:220; see also Haines 1999:173). Most UFO photographs are "utterly worthless" based on the circumstances in which they were shot and then offered for examination, the absence of vital elements (e.g., a negative to compare to the print), and significant internal flaws and conflicts with eyewitness testimony (Story 1981:115). The strongest photographic evidence is that which is accompanied by a credible witness (or better yet, witnesses), whose camera and negative are available for analysis, whose shooting circumstances can be cross-checked, and which is ideally not alone (Shaw 1989:218). This is why many ufologists put so much more stock in films of UFOs, as they provided so much more information with so much less probability of fakery (Shaw 1989, Randle 1999). The same can no longer be said of analog and digital video, however.

At the same time, we have witnessed the increasing diffusion of technologies for creating and manipulating most of these artifacts. ¹⁹ Many of the devices were born in an arms race in entertainment for producing more impressively "realistic" special effects. However, they have been democratized via the spread of the personal computer and internet connectivity.

This is a crucial point about the contemporary world (again, to different degrees everywhere): the ubiquity of high technology. There has been an increasing diffusion, especially among nonexperts, of recording instruments of all kinds. Large numbers of people in the middle classes of many societies (from which population the majority of ufologists come) often own film and digital cameras, analog or digital camcorders, and some kind of magnetic tape, digital audio disc, or MP3 recorder. They can also just as easily purchase a variety of electromagnetic detectors and lab equipment.

The increasing sophistication of the instrumentation accessible to average consumers is not always accompanied by comparable increases in interpretative sophistication. That is, fewer of us know *how* our recording devices capture traces of real-world phenomena, yet we trust *that* they do so in some straightforward fashion. Even our heightened awareness that "things can be faked" doesn't totally undercut a naïve realist interpretation of recording device artifacts.

This naïve realism derives in part from the ubiquity of recorded and mediated information, but also to a significant degree from the use of these instruments (or more complex and powerful versions of them) by official scientific experts. Those positioning themselves as experts can accrue considerable cultural capital and thus influence by aligning themselves and their knowledge claims with "Science" (whatever we think it is) and its characteristic devices. Thus figures like Bruce Maccabee and Jim Dilettoso can parlay their training and skills in image analysis into a prominent position in ufology. Yet the symbolic authority of Science that attaches to high-tech devices is hollow, even in highly scientized/secularized societies like the US (Toumey 1996, Denzler 2001).

To keep this as anthropological as possible, we should note the cultural specificity of conventions of representation. ^[20] A great many ethnographic and psychological studies have pointed out that humans must learn how to interpret visual stimuli – for instance, how to read a 2-dimensional drawing as a 3-dimensional image. Our brains try to make sense of incoming signals with schemas, patterns they only acquire through long training by our being immersed in rich communication with others—i.e., through enculturation (Ross 2003). While a huge percentage of the neocortex may be devoted to visual processing, seeing is not the master trope for knowledge or belief in all cultures (Fernandez 1986).

Case Study: the Mexican Wave, 1991-Present

With this cultural variability firmly in mind, we now turn to a source of UFO reports and lore other than the US. I will draw on my own bibliographic and ethnographic research into UFOs in Mexico. Although a case could be made that US pop culture and US scientific culture are too influential here for Mexico to provide an ideal controlled comparison (cf. Eggan 1966), I will show several key differences in the Mexican UFO field that argue for the importance of local culture.

Let me begin to highlight the similarities and differences through a brief history of UFOs and ufology in Mexico. ^[22] Interest in UFOs arose roughly contemporaneously with the US, in the early 1950s. Much of this interest, which was cultivated by a few media personalities like Pedro Ferriz (1972) and thus mainly restricted to the urban middle class, derived from US reports of saucers crashing just south of the border (e.g. Scully 1950). The first UFO book published in Mexico, that of a pseudonymous "William Jones" (1955), while highly reasonable and readable, provided only a general overview that included not a single Mexican sighting. Some of the first and most celebrated cases came from contactees, like *taxista* Salvador Villanueva (n.d.; S. García 1973), who were in sporadic but documented contact with US contactees and their backers (Guzmán Rojas 1996).

By the 1970s there was a small cadre of UFO investigators (*ovnílogos*, *ovniólogos*, even *ufólogos*), made up of Fortean, paranormalists, and journalists. We also begin to see institution-building, with the founding of the first and longest-lasting ufological organization, the Centro Investigativo de Fenómenos Espaciales, Extraterrestres, y Extraordinarios, Asociación Civil (CIFEEAC) in 1968, and the first journals (like *OVNI*) appearing by the mid-70s. The first generation of ufologists reached out to their colleagues around the world, hosting one of the first major international conferences in Acapulco in 1978 (Ferriz and Siruguet 1981), which I argue

should be understood in light of contemporaneous attempts to position Mexico as a major player on the world political stage (Riding 1989).⁶ This first generation also reached out to embrace the international "ancient astronaut" school of historical reinterpretation, linking modern UFO reports to the imputed presence of aliens in Mexico's glorious indigenous past (Ferriz and Siruguet 1978, Ramírez Reyes 1999). Here too the Mexican ufological project intersects with official state ideology (Lomnitz 2001) in a way more similar to the nationalism of Armenian ufologists (Platz 1996) than to the globalism of US ufologists.

By the early 1980s, however, the first generation of Mexican ufologists had died, burned out, soured on the subject, or otherwise withdrawn from the scene. Ferriz, for instance, returned to journalism and then ran for national-level political office (Ramos Cárdenas 1997). A second generation arose but, with few exceptions (Jaspersen 1982, Ramírez Reyes 1995), did not push forward the work of their predecessors. Historical reviews by current ufologists (Guzmán Rojas 1996, Contreras Esparza and Aguilar 2002) generally lament this transition, as it interrupted, even destroyed, the continuity in systematizing and institutionalizing that they believe other national ufological traditions have enjoyed. (I would counter that cycles of public interest and institution-building are visible in the history of US ufology—e.g., witness the passing of nearly all of the great civilian investigative groups by the 1970s—and very likely in other ufologies. Whether those cycles equate to discrete "generations," and exactly how discrete Mexican ufology's generations truly are, remain matters for empirical research.) Although a few interested media personalities kept UFOs in public view (thanks, some ufologists suspect, to the indulgence of the leadership of the quasi-monopolistic Televisa media conglomerate), interest had very nearly disappeared by the end of the 80s.

[23] The event that catapulted UFOs and a third generation of ufologists to prominence was the spectacular July 1991 solar eclipse. The eclipse drew the eyes and (even more importantly) videocameras of millions of Mexicans to the skies, where they recorded anomalous objects, sometimes whole armadas of them (Martínez Jiménez 1995, Sheaffer 1998). Tapes of these UFOs began to flood broadcast media companies, spawning marathon debates on popular talk shows like Nino Canún's *Y Usted...¿Qué Opina?* (Guzmán Rojas 1996) and piquing the interest of journalists like Jaime Maussan. Just enough of the first and second generation of ufologists remained to vigorously criticize what they considered sensationalism and shoddy scholarship by the new media-savvy breed like Maussan—encouraged, according to some, by the intensification of competition in the post-monopoly media market (Álvarez 1998) and an accompanying "vulgarization" of the nonexpert audience for UFO material (Lazcano 1996).

The popularizing work of Maussan and others inspired a cadre of "vigilantes" (watchers) to canvas the country collecting photos, videos, and sighting narratives, then mediating them through TV (Maussan's *Tercer Milenio*), radio (Ramírez Reyes's *Juicio OVNI*), magazines (*Contacto OVNI*), and websites (Maussan's www.ovnistv.tv). While sighting reports continue to emerge across the country, they are especially concentrated in certain "hot zones"—e.g., the "Zone of Silence" in Durango, the Popocatepetl region comprised by Puebla, Morelos, Mexico state, and the Federal District. And these UFO reports draw international attention (thanks to the more globally interconnected national media), attention which has, in the hot zones, been spun into a kind of "ovniturismo" catering to foreign visitors (Martínez Jiménez 1993).

[24] At the present time, UFOs have a solid if minor place in Mexico's culture and mediascape; while visible, they are neither as important nor as widely accepted as ghosts, angels, saints, demons, or witches (Ramírez Reyes 1995:47). Mexico may be a superabundant source of data—like nowhere else in the world, if many Mexican ufologists are to be believed

⁶ A "First International UFO Congress" convened in July 1977 at the Pick-Congress Hotel in Chicago (cf. C. Fuller 1980) would technically have priority, but there is some question as to how international the attendees truly were.

(cf. Yturria 2001). Yet Mexican ufologists import theories and methods from the US and Europe, and even the most internationally prominent ufological figures like Maussan add little but exotic reports and images to the cross-border dialogue. (This despite Maussan's attempts, detailed below, to link Mexican sightings, crop circles, and other "signs" with the infamous Mayan 2012 millennial prophecy in a comprehensive explanation for alien contact.)

This suggests an intriguing but as yet unexamined parallel to the underdevelopment claimed for Mexico's mainstream sciences (cf. Gortari 1980[1963], Pérez Tamayo 1980, Campos and Jiménez 1991, Arellano Castro 1996). Suffice it to say that the Mexican scientific mainstream has few strong links to the nonexpert public—partly from its partisans' efforts to differentiate it from a still vital Catholic Church, partly from its ambivalent and contradictory alliance with the technocratic State—and thus a very thin epistemic authority and limited cultural capital. For that reason, claims to scientificity as grounds for credibility or authority ring even more hollow in Mexico than in the US (compare Toumey 1996 to Pérez Tamayo 1980).

Since we are engaging with visual representations of UFOs and the epistemic problems they present, a review of key recent cases in Mexico involving photos and videos is in order.

Eclipse videos/photos, July 1991

[25] The path of the 11 July eclipse fell straight across some of the largest urban areas in Mexico, drawing millions of locals and tourists into the streets with telescopes, binoculars, cameras, and camcorders. Training their attention upward, many noticed—and recorded—shiny objects, in singles and in groups of dozens, dancing in a different part of the sky. As described above, the resulting flood of images made its way to well-known news programs, inspiring a few journalists like Jaime Maussan to devote themselves and their shows solely to ufological and paranormal themes.

The eclipse sightings began a wave of reports across central Mexico. One area in particular, the lower reaches of Popocatepetl volcano above Atlixco, Puebla, generated so many reports that locals began to cater to saucer-seeking tourists. Another nearby town, Tepoztlán, Morelos (made famous in anthropological circles as a case study in culture change [Redfield 1930, O. Lewis 1951, Lomnitz 1992]), has grown into a New Age pilgrimage site of global notoriety through a synergistic collaboration between foreign-based, UFO-themed package tours and the (Maussan-abetted) marketing of local contactee Carlos Díaz (Sheaffer 1998, Strieber 1998, Contacto OVNI 2001).

Las Lomas video, August 1997

[26] The next UFO case to have an international effect occurred in a suburb of Mexico City called Las Lomas six years after the initiation of the current wave. On 6 August 1997 two men in a high-rise apartment building videotaped a wobbling disc-shaped UFO slowly drift past, and then behind, nearby buildings (Guzmán Rojas and Quezada 1998). That they manifested a seemingly unfeigned (i.e., profanity-laced) agitation on tape lent an air of authenticity to the otherwise extraordinarily, even suspiciously detailed video. The men submitted their tape to Maussan's *Tercer Milenio*, which aired it nation-wide on 28 September. By 1 October, the video was featured prominently on a Canadian UFO website, from which it attracted a few vociferous supporters (including German ufologist Michael Hesseman and former US MUFON head Walt Andrus) and a great many critics, including prominent ufologists. Though widely accused of being a fake (e.g., soundtrack added later), the Lomas video continues to be featured in collections of the "best UFO evidence."

Popocatepetl eruption photo, December 2000

[27] A 5400m/17800ft stratovolcano about 40 miles southeast of Mexico City, Popocatepetl has long been important in central Mexico, providing fertile soils, runoff water, timber, sulfur, and gold, a home for key prehispanic and syncretic deities, and an evocative symbol of Mexico (Glockner 1996, Iturriaga 1997, Villa Roiz 1999). It has also interceded in the history of the region, its periodic explosive "Plinian" eruptions covering densely inhabited regions with layers of rock, ash, and mud (Plunket and Uruñuela 2005). The volcano returned to activity in December 1994, alarming local residents and spurring university and government earth scientists to monitor the outward manifestations of its interior processes for signs of potentially devastating Plinian episode.

During an eruptive episode in the early morning of 19 December 2000, photojournalist Alfonso Hernández Reyes ascended to the alpine station of Tlmacas to shoot pictures of the jets of reddish-orange lava. Upon returning to his bureau and developing the film, he found one frame in which a glowing ball of light appears to be zooming toward the volcano crater. He sent the anomalous photo and several others to the general Notimex pool, from which it was published on the front pages of domestic and, within days, many foreign periodicals.

By chance I met and spoke with Reyes in April 2003. Though he had come to work on Maussan's journalistic team researching environmental issues, he was solidly agnostic on the matter of UFOs, in general and in his celebrated photograph. His photo has joined a growing body of UFO images shot around and above Popocatepetl, some captured by official government monitoring cameras. Ufologists have offered several interpretations of this concentration of reports: an alien scientific survey of earthly geophysical processes; a means to recharge the alien ships with seismoelectric energy; a helpful warning of imminent danger; even an attempt to save residents' lives (Díaz Altamirano n.d.)

Iztaccíhuatl snow symbols, March 2003

This next case seemed to have only minor local interest at the time, yet it has been greatly inflated in importance by Mexico's most prominent contemporary ufologist, Jaime Maussan, and for that reason allow us some deep insights into the Mexican UFO scene. [28] Maussan had come to Puebla in late March 2003 to give a public presentation on his latest work (which included, indeed culminated in, the decoding of an apocalyptic alien message in a British crop circle). It seemed a great stroke of luck to me that a man I wanted badly to make a key informant was delivering himself to my doorstep, so I bought tickets (at the characteristically steep price of mx\$200) for myself and several interested friends.

The day before the talk, I met Maussan by chance at the local Televisa studio where we had independently been invited as guests on a local variety show, *El Club de la Buena Suerte*. As frequently happens in the spring, snow had fallen overnight well below the treeline on both Popocatepetl and its partner Iztaccíhuatl. Morning light revealed what seemed to be uncanny dark patterns on Izta's snowy east face--patterns taped inadvertently by a local TV news crew and reported to Maussan by area residents in conjunction with a nocturnal UFO sighting. Maussan mentioned the snow symbols in our TV appearance, and then incorporated them prominently into his talk the next evening, soliciting interpretations from audience members. By the time I had returned from the field in June 2003, Maussan's website featured the symbols, glossed as "Biblical Hebrew" by a priest and fitted into an unfolding series of "signs" left by aliens regarding volcanic dangers, earth changes, and even the New Age mainstay, the Maya long count culminating on 21 December 2012 (cf. Argüelles 1987).⁷

⁷ Maussan in fact appropriated the imagery of the then-current M. Night Shyamalan alien invasion film "Signs" for his talk, calling it "Los Verdaderos Señales" (The Real 'Signs').

Campeche Air Force video, March 2004

One final case will illustrate the continuing stream of videos issuing from Mexico into the global mediascape and ufological debate. ^[29] On a routine patrol for drug smuggling aircraft over the Gulf of Mexico on 5 March 2004, a crew from Mexican Air Force squadron 501 captured a series of up to sixteen unusual bright spots on their forward-looking infrared (FLIR) camera. Though unable to confirm visually or by radar, the crew became increasingly nervous that the luminous bodies seemed to be chasing them. A videotape with the FLIR footage and cockpit voice recordings was released to Mexican television on 12 May, apparently by the Air Force itself, which allowed the crew to give uncensored interviews subsequently.

Given that the UFOs seem not to move against the most distant bank of clouds, and the fact that the plane was circling above multiple oil drilling platforms, some (including ufologist Alejandro Franz) have speculated that the crew taped a string of natural gas fires set by the drilling stations as a safety precaution (Sheaffer 2004). Despite such skeptical interpretations, the combined UFO and interview footage is now widely available and generally provided as authentic.

In all of these cases, ufologists seized on the anomalous images for their own purposes, only one of them—an important one, but only one—to advance the science of ufology. The photos and videos constitute a major component of ufologists' media output and public presentations. They provide a direct, impressive means of connecting UFO phenomena and its specialists to nonexperts, a critical connection since it is basically the only source of credence and remuneration available to ufologists. Videos especially figure in ufologists' entrepreneurial efforts. Contactee Carlos Díaz sells his photos of "plasma craft" to UFO tour groups (Sheaffer 1998), Maussan and Los Vigilantes each sell VHS and DVD collections of UFO video clips and photo slideshows.

However, in the present era of digital effects-laden entertainment, these images are an increasingly double-edged sword for ufologists. The immediacy and verisimilitude of moving images of anomalies lend an aura of credibility to the source of the videos and to the investigators who popularize them. Only a slight benefit of doubt is necessary to make them effective. Yet nonexperts know such pictures can be faked, if not easily or by everyone. Furthermore, surrounded as they are by more and more "realistic" sci-fi depictions of aliens and their craft, nonexpert consumers of UFO images expect something more dramatic or sophisticated than shaky videos and grainy photos. This is certainly the case in Mexico, where most people see the same movies and TV shows Americans do (if in later, overdubbed releases or in bootlegged videos).

Nonexperts are not alone in their highly variably credulity about UFO images; ufologists themselves exhibit significant differences in their interpretations of those images. ^[30] Disputes over the credibility of images usually break out along pre-existing lines of alliance and antagonism, lines that structure the Mexican UFO field as strongly as they do in other cultures (see Patton 1997, Denzler 2001). Some observers (e.g. Lara Palmeros 1996) go to great lengths to divulge the general distrust and occasional politicization that characterize relations among Mexican paranormalists. For instance, Maussan and Los Vigilantes have drawn plenty of flak over their uncritical (and perhaps unethical) collection and dissemination of average citizens' videos (Lara Palmeros 1996). ^[31] Alejandro Franz, airline pilot and head of the Asociación Latina de Contactados, Investigadores, y Observadores de Naves Extraterrestres (ALCIONE) demonstrated for me how easy it would be to fake the famous 2001 Popocatepetl UFO photo using PhotoShop, not simply to inject a welcome bit of critical thinking, but also to land one more punch in his ongoing battle with Maussan. Bearing in mind the above discussions of both the ambiguous nature of UFO images and the unsettled state of ufological

communities, there is not likely to be any one photo or video around which all ufologists can rally, let alone with which they can gain the acceptance of the scientific mainstream.

Approaching Anthropology Ufologically

Anthropology's utility for any study of social phenomena is its cross-cultural, comparative, relativistic perspective--its way of showing the familiar in what is outwardly strange, and of revealing what strangeness lies at the heart of the seemingly familiar. This perspective has helped us make sense of the marginal, stigmatized, but persistent UFO field in several cultural contexts. Yet if an anthropological perspective has turned out to be so useful, why then does it remain so peripheral to the kinds of epistemological and ontological discussions that UFOs seem to raise? Is this only true in certain societies? For certain topics? Once again, comparative data are useful, so I will draw on my experience with both US and Mexican contexts.

Perhaps a further reflexive move can clarify matters. If anthropology, which is itself unusual and transgressive among western sciences, can illuminate the positioning and fortunes of ufology (cf. Roth 2005), what could ufology tell us about anthropology? As I will indicate, ufology makes a world of experience, knowledge, and science that increasingly many of us take for granted seem exceedingly strange; by following ufology to the margins of epistemic and social fields, we will be able to look on anthropology with new eyes.

[33] Anthropology is an anomalous science in several senses. For one thing, it straddles the "science"/"humanity" demarcation, often at the very real peril of pulling the discipline apart (e.g. Jaschik 2007). It requires of its practitioners a relativistic approach to the world, to a degree most other sciences do not. Why is anthropology's cultural relativism so disconcerting for so many when modern physics reflects a sometimes dizzying relativism and theoretical pluralism? Possibly because physics still holds out the promise of a convergence on some fundamental, universally accepted truths about the cosmos, where anthropology in its current state is more open-ended. Possibly because social sciences generally have no productive link to the military-industrial-governmental complex, whereas physicists have been enrolled in various large-scale and have demonstrated their practical utility to their patrons (S. Fuller 1992:397).

Another layer of anomalousness, felt particularly strongly in recent years in many social sciences, is the way in which the key concept of "culture" seems increasingly to slip away the more we learn of it. What or where is *culture*? Is it intersubjective? Superorganic? A byproduct of natural selection's programming? A myth on the order of "race"? What are salutary epistemic and methodological debates within the discipline make for rather contradictory messages when communicated outside the discipline. Furthermore, much of what anthropologists assert about humans is being problematized, on one side by the sciences of genes and brains, on the other by a postmodern turn which we have ourselves helped to spearhead. Even when we have things of enduring value to offer debates on social policy or priorities, the public profile of anthropologists as explainers has (at least in the US) all but disappeared since the days when Margaret Mead, Marvin Harris, and the Leakeys appeared regularly in nonspecialist media. By contrast, the collaborative role anthropologists and archaeologists have had with the state in creating a Mexican national identity (or at least ideology) has ensured them more visibility and influence in Mexico (cf. Lomnitz 2001).

How does anthropology's anomalousness compare with that of ufology? They meet up in rather provocative ways. [34] First off, in trying to deal adequately with the complexity of their respective phenomena, neither can avoid the complications of multidisciplinary. Pursuing humans and UFOs leads each group of investigators to infringe on the turf of established disciplines, from whom they share or steal much of their respective toolkits of theory and method. In addition to

the tensions this boundary-violation creates with those other disciplines, the requirement to be competent in multiple often divergent fields in order to study their respective subjects imposes a significant burden on both anthropologists and ufologists—more so on the latter given the absence of official training or accreditation.⁸

Both are necessarily field disciplines lacking the ability to replicate their results in lab situations (though both can benefit from simulating aspects of their phenomena using computers). In both UFO reports and ethnographic data patterns recur, patterns which can be noted independently from multiple perspectives. If photos and videos can serve as UFO reports, how might they be compared to ethnographic films as representations of the phenomena under study? Both require interpretation, but there is generally no argument against anthropologists when they claim to have captured humans on film.

Specialists in both anthropology and ufology must work predominantly through informants to create data, with all the complications such interpersonal traffic entails. In fact, ufology might benefit from the attention to context and the constructive/reflexive perspective anthropology provides, as several leading ufologists (Vallée and Vallée 1974[1966], Ballester Olmos and Guasp 1982, Keel 1989) have suggested.

Approaching anthropology and ufology as communities of investigators, we see that both have distinctive national traditions. These traditions are often characterized by a contentious balance between quantitative/natural-science and qualitative/humanistic wings. A fascinating research avenue would be discovering whether a correlation exists between the character of particular ufological communities and the relative prominence or prestige of certain mainstream sciences in that society.

One final area of comparison, though others could well be suggested: the relationship between anthropology, ufology, and the culture industry. Both fields find their subject matter and even their experts appropriated by producers of entertainment to tell stories to nonexpert audience/consumers; those images of anthropology (e.g., the Indiana Jones series, "Krippendorf's Tribe") and ufology (e.g. "Close Encounters of the Third Kind," "X-Files") in turn shape how nonexperts understand the actual fields and what they are about, which diverges in significant ways from the experts' emic understandings. Since ufologists engage much more directly with, and are much more dependent on the nonexpert public than are anthropologists, this is of greater moment for them.

That contrast broaches the equally important matter of how anthropology and ufology diverge. Anthropology, whatever its relationship to the mainstream of western sciences, has a settled institutional position (university chairs, departments, courses) and resources (funding agencies). It boasts varied but definite training programs, certification standards and procedures, and an active job market. Not just anyone can be considered an anthropologist, though anyone with enthusiasm and a little research can engage in folk ethnology and amateur archaeology—to the consternation of the increasingly professionalized and specialized corps of anthropologists. Despite sharing some features of disciplinary institutionalization, like advocacy groups (Fund for UFO Research, Extraterrestrial Phenomena Political Action Committee), annual meetings (National UFO Conference), and journals (International UFO Reporter, MUFON Journal), ufology does not enjoy the same status as anthropology. They may not know what to make of it (see Traweek 1992), but most scientists grant anthropology the disciplinary legitimacy they refuse to extend to ufology.

Part of this refusal has to do with the subject matter of each field. Anthropology's is not stigmatized by either the gatekeepers of the scientific mainstream or by nonexperts, even though our relativistic approach is neither well understood nor particularly well liked by either our

⁸ Yet see Jacobson and Ziegler's (1998) requirement that anthropologists of science develop the same understanding of the field as the scientific experts they study.

scientific peers or our nonexpert interlocutors. Anthropology is much closer to the natural sciences in the stability of and the consensus on what constitutes accepted data, theory, and method. Where it differs from the natural sciences is in a tendency to form schools of thought and to return to the same fundamental issues without the kind of "progress" the natural sciences have achieved in their domains (Bauer 2001). On both these counts anthropology compares to ufology.

From a position of relative strength and security, anthropologists have made more progress in debunking commonly-held cosmologies than have ufologists (though even more can be done on topics like the origins and evolution of humans or the biological irreality of "race"). Ufology after 50 years finds itself no closer to penetrating its central mystery, certainly not in any fundamental way changing how they or their nonexpert audience thinks of UFOs. This scientific liability is something ufologists use to enroll nonexpert credence and support; UFOs provide one of the last remaining areas where the state of the art matches common sense, and where the bar to gaining recognition as an expert is still low enough for most educated people to clear it (Cross 2000, Denzler 2001).

Yet for all that success in shaping how people understand themselves and their place in the cosmos, anthropology is much less visible in, and much less intertwined with, the media of communications and entertainment than is ufology. This makes sense, as it is the entrepreneurial strategy ufologists have pursued as a matter of survival. But it has important ramifications. One of them is that ufologists, in their "ethnological" analysis of the aliens who seem to plague us, confirm an understanding of human "racial" variation that anthropologists have long since disavowed but which nonetheless resonate with a great many nonexperts (Roth 2005). Another ramification, closer to the theme of this paper: despite all the work anthropologists have done to indicate the strong cultural influences on perception and cognition, ufologists are able to use culturally specific schemas (anomalous lights = spacecraft = humanoid aliens) and naïve realist interpretations (photos are straightforward representations of "real" phenomena, ergo UFOs are "real") to assert the reality of their subject matter and the scientificity of their approach in a way that convinces many nonexperts—even when it compromises the critical approach many ufologists have toward visual evidence, which could provide a more solid scientific grounding for their field.

Concluding Thoughts

This exercise in ethnography and epistemology was not undertaken to stigmatize one discipline or another by association, but rather to illuminate each by using the other. I hope it has given some indication of the utility of anthropology of science for understanding the dynamics of mainstream and marginalized knowledge fields and their respective experts. As useful as it may be, however, anthropology cannot be invoked to pass judgment on ufology's scientificity; what it can do is to reveal the historical and cultural context and the various populations for whom the question "Is ufology a science?" might be relevant. Yet if this paper and the larger work on which it was built (Cook 2004) are accurate, ufology can be understood using the same tools we use to analyze mainstream sciences, even if it differs from those sciences in significant ways.

^[35] What does this insight tell us about the ideological arena (Hess 1993) within which ufologists, mainstream scientific gatekeepers, nonexperts of various kinds, and anthropologists interact? For one thing it will allow us to interrogate the political economy of knowledge and knowledge-based authority that characterizes our increasingly technocratic, expert-dependent societies (Milton 1996; Nowotny, Scott, and Gibbons 2001). It allows us to address the ways that ufology and anthropology and every other discipline is positioned in that arena by drawing on empirical research, contrasting it to the assumptions and ideologies that players in the arena

(including anthropologists) invoke. It highlights the strong connections between knowledge claims and claims to many types and sources of power, influence, legitimacy, and authority.

[36] Furthermore, if the combined cases of ufology and anthropology provide any indication, claims to knowledge by different experts in different fields may not be universally or perfectly convertible into claims to epistemic authority (DeGeorge 1985). Nonexperts have taken up anthropology's reformulation of the culture concept without seeming to acknowledge either the source of the innovation or the further explanatory insights that derive from it (e.g., the arbitrariness of all cultural categorizations—race, ethnicity, gender, etc.). Ufologists have had great success deploying UFOs to inspire wonderment among nonexperts, but considerably less in translating nonexpert credulousness into recognition as "real" scientists.

How much of this variability in the success of knowledge claims lies in the nature of the subject matters of anthropology and ufology? Put another way: is the epistemological veil behind which UFOs and humans lurk significantly different from what is veiling conventionally scientific subjects? Most spokespeople for the mainstream sciences argue that UFOs can never be made into proper natural-scientific objects. There has been no end to the debate over whether anthropology ought to be *Naturwissenschaftlich* or *Geisteswissenschaftlich*, nomothetic or idiographic—a debate which has yet to fully emerge within ufology.

How different are UFOs and *H. sapiens sapiens*? If we take seriously the claims of our ufological informants, as at least one anthropologist (Turner 1993) urges us to consider, it would seem that both ufology and anthropology have agentive, interactive objects of study. This has a profound effect on how they can be approached and what tools we can use to understand them. [37] How do we study something that we must assume is able to study us right back? or is at the very least in some kind of feedback relationship with us? Here, again, the experience of anthropologists (who have been dealing with interactive subject-objects since before we thought of them in those terms) may have some light to shed on the matter of ufology.

Does this mean that a study of UFOs encounters a veil similar to that with which anthropologists have had to concern themselves since the onset of the reflexive turn: namely, the projection of aspects of the Self onto the Other? Ethnocentric projections are always a danger. That hardly implies that UFOs and humans are thus ontologically equivalent, though it again highlights their epistemological similarities. The application of gadgets to learning about UFOs and humans only magnifies the problems of knowledge, since technological outputs still require our interpretation, and are thus subtly but inevitably influenced by context, culture, power.

[38] Considered in this light, UFO photos provide us with a window onto a parallel, shadow version of the contemporary world and of the mainstream sciences. They bring us into contact with some of the largest and most intractable problems of Western epistemology. Once we enter the UFO field, we can no longer trust the evidence of our own senses, still less the evidence generated by the machine enhancements of those senses.

To examine the visual records of UFOs is to be confronted by two unnerving but liberating realizations. On the one hand, UFOs highlight the frustrating concreteness yet ephemerality of knowledge when it has been uncritically objectified. At the same time, they offer the tantalizing possibility of a rapprochement between analytic and holistic epistemes. On both of these counts, they parallel some of the more profound results of anthropology's ongoing experiments in self-reflexivity. An anthropological approach to UFOs—paying attention to the irreducible human core of the UFO field—will pay great dividends both for our understanding of UFOs in many cultural contexts and our understanding of the anomalous positioning of anthropology itself.

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