

Amateur Paranormal Research and Investigation Groups Doing ‘Sciencey’ Things

A study of 1,000 websites shows how amateur groups use technical jargon and equipment as symbols of what is “scientific” while actually promoting the paranormal and not adhering to any real scientific principles of investigation.

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In the early 2000s, a new kind of paranormal-themed show appeared on television. This “reality-based” genre of programs featured individuals or teams of nonscientists who undertook investigations of alleged paranormal phenomena. The Syfy network’s *Ghost Hunters*, the most popular of these shows in the United States, boasts over two million viewers per episode (Seidman 2009) and has launched two spinoff shows. The show’s group, The Atlantic Paranormal Society (TAPS), directly influenced the formation of other similar groups (Brown 2008). Within a few years, multiple cable television networks hosted shows that portrayed people directing and participating in self-styled investigations into UFOs, monster reports, and strange, spooky activity around the world.

Also in the first decade of the twenty-first century, amateur research and investigation groups (ARIGs) sprang up in communities across the United States. Many represented their activities as scientific. Interested in seeing how ARIG ideas about being scientific compared to those of the scientific community, I conducted a review of 1,000 websites representing ARIGs in the United States (Hill 2010). How many are there and in what manner do these groups use science to promote themselves and fulfill their mission?

Defining ARIGs

ARIGs are unique in that they examine areas on which no organized academic research or inquiry is focused—perceived paranormal events. They are led by and composed of people who have little or no scientific training. In these two ways,

they significantly differ from other amateur science programs for which nonscientists gather specific material data for established science-based research programs.¹ ARIGs are typically hobbyist groups held together by their interest in the subject. Members are serious about their research activities, but jobs limit their participation. Involvement in these groups is an example of a “serious leisure” activity (Stebbins 1992): like-minded individuals diligently pursue an activity to fulfill certain social and personal aspects of their lives.

I limited my study to groups who use the Internet. The Internet provides an efficient way for ARIGs to recruit new members, exchange information, and solicit cases from the public to investigate. ARIG websites reveal their mission, goals, methods, philosophy, and typical results. While these groups

are also marketed through local word of mouth or media appearances, a web presence often provides the first point of contact for those who may be seeking help to explain a suspected paranormal experience.

Considering the above observations, I define ARIGs by the following characteristics:

- 1) Not under the auspices of an academic institution or headed by working scientists
- 2) Focused on investigation of unexplained or paranormal events such as reports of hauntings, mystery animals, unidentified aerial objects, natural anomalies, and parapsychological phenomena
- 3) Undertaking activities that do not provide a primary form of income for participants
- 4) Self-forming and independent (but may hold affiliation with a larger organization)
- 5) Promoted via the Internet

Characterizing ARIGs in the United States

Prior to my research, word of mouth in the paranormal and skeptical communities suggested that there were hundreds, if not thousands, of ghost hunter, UFO seeker, and monster tracker groups across the country, but no one had attempted to formally count them all. Counting these groups is difficult because they are ephemeral—as easy to let die as to set up.

Before social networking tools, it was difficult to connect with others who were interested in fringe topics. Such groups historically recruited via

bulletin boards and advertisements; they were maintained through mailed newsletters, desktop journals, and physical gatherings. The Internet lowered the barriers to group formation.

I collected 1,600 ARIG web addresses through various Internet search methods and index sites. At this point, I realized there were many more I had yet to count. I accepted that 1,600 would serve as representative of the population, and the list was randomized and numbered. Information was then collected on the first 1,000 active sites. Data collected included the group name, home state, subject category, and scientificity (whether or not they claimed to use science or scientific methods), as well as several features observed that were common (use of psychics) or unique (specialized in cases with children or animals, for example).

My results showed that almost all U.S. states had four or more groups active at the time of the survey. There was at least one group in every state, with the overall numbers roughly correlated to population density across the United States. Ohio and Pennsylvania had the highest tallies at eighty-one and eighty, respectively. Because many groups will travel to adjoining states, there are overlapping “coverage” areas among ARIGs.

ARIG subject areas resolved into four categories: ghosts, cryptozoology, UFOs, and general paranormal (including natural anomaly occurrences or cases of alleged psi phenomena). Values are shown in Figure 1. Many groups stated they would investigate all categories and were labeled “paranormal.” Out of 1,000 groups, 879 identified with the category of “ghosts.” An additional eighty-one included ghosts within the broad “paranormal” category. These counts affirm that ghost hunting is *incredibly* popular and trendy.

Only five specialized in UFOs or UFOs in combination with other anomalous phenomena (but not ghosts). One of the five is the Mutual UFO Network (MUFON), which claims thousands of members with a director plus investigators in every state. (Several states are combined under “New England.”) Over the past few decades, UFO research consolidated

under MUFON, which provided unified methods of investigation, training, state-to-state cooperation, and sharing of results.

In contrast to the UFO research centralization, the ghost groups are smaller, diffuse, and independent. There are a few preeminent groups with which individual groups can be affiliated, such as TAPS or Ghost Adventures Crew (GAC)²; however, they do not direct group functions but rather only provide a set of standards to which groups must adhere to maintain affiliation.

Thirty-five groups specialize in cryptozoology, mostly focusing on Big-foot reports. Cryptozoology groups may be local or have members dispersed across the country. There is no overarching organization.

I used the Internet browser’s search feature on each site’s main page to locate the text string “scien” returning results for “science” and “scientific,” if it existed, on the page. Use and context of these terms determined the group’s “scientificity.” If the use of these words was not positive (i.e., was anti-science), then the scientificity was counted as “no.” If positive or neutral, the scientificity was “yes.” If the terms were not used at all, scientificity was labeled “not specified.”

A total of 526 ARIG websites (52.6 percent) displayed scientificity by explicitly using “science” or “scientific” in reference to their mission, methods, or goals. An additional twenty-seven sites used “scientific” to refer to their equipment only. Twenty designated their group as “semi-” or “quasi-” scientific or strongly suggested science by use of oblique ref-

erences such as “not an exact science.” Only nineteen ARIGs were completely nonscientific or anti-science, advocating a completely psychical or subjective approach. The remaining 40.8 percent of sites did not specify. (See Figure 2.)

ARIGs’ ‘Scientific’ Methodology

Indicator surveys consistently show that “science” is held in high regard in our society (National Science Foundation 2009). Every party with a claim wants science to support its side. This, I suspect, is a main reason why the majority of ARIGs attempt to cultivate a serious, science-like image. Manner, language, and procedure of science are imitated in order to appear sophisticated and credible (Degele 2005; Haack 2007).

Two primary means ARIGs use to portray a scientific image are *jargon* and *use of technology*. Use of science jargon, or “scientese” (Haard et al. 2004), was common to ARIGs that exhibited scientificity. Several sites have specific sections pertaining to the “science” of their activities. Commonly used terms include words such as *frequency*, *resonance*, *energy*, *quantum*, *magnetic*, *environmental*, and *electricity*. Yet the sites lack operational (or even common) definitions for these terms. Vague and confusing language is ubiquitous: ghosts “use energy,” are made up of “magnetic fields,” or are associated with a “quantum state.” Scholarly references to scientific works are nonexistent, but Einstein and Edison are frequently and explicitly connected to current ideas about communication with paranormal entities as if credibility can be bolstered by naming people popularly associated

Group Categories

5 UFOs & Combinations

35 Cryptozoology

81 Paranormal

Ghosts 879

0 100 200 300 400 500 600 700 800 900 1000
Number of Groups

In stark contrast to scientific writing, (amateur investigation group) websites will frequently state certainty in their goals or conclusions. Their mission is to “prove” a phenomenon they believe exists or to provide “irrefutable” evidence of same.

with science and technology.

The word *scientific* is also used liberally. Certain groups will proclaim their “scientific methods” citing a “scientific approach” and “scientific research” to obtain a “scientific solution” with “scientific proof.”

ARIGs that claimed to use “a scientific method” equated the process most often with a systematic protocol of observation and collection of empirical data. ARIG methodology, as outlined on their websites, includes the following: eyewitness interviews, site visit(s) with equipment setup, collection of data in usually one but possibly multiple days and/or nights, analysis of the data, presentation of the results to the client (if there is one), and a write-up or record of the investigation.

For ghost investigations, “scientific” collection of data consists of gathering temperature readings, electromagnetic field anomalies, photographs, sound recordings, and other “energy” readings. This process often includes highly sub-

jective methods such as psychics, dowsing rods, and Ouija boards to help guide investigators in equipment setup. The most common evidence cited by ARIGs for hauntings was electronic voice phenomena (EVP), where indistinct sounds recorded during the investigation are presumed to be communication with entities. I was hard pressed to find *any* data tables, graphs, maps, or documentation of the results, which one would expect to find in a typical scientific report.

To establish a body of knowledge as “scientific” and to maintain science as a unique and respected endeavor, the scientific community subscribes to an ethos defined by ideals or norms (Ziman 2000). Merton (1942) established these norms as communalism, universalism, disinterestedness, and organized skepticism.

The first of Merton’s norms, communalism, encompasses sharing knowledge and data, allowing others to reproduce the work. While ARIGs post their

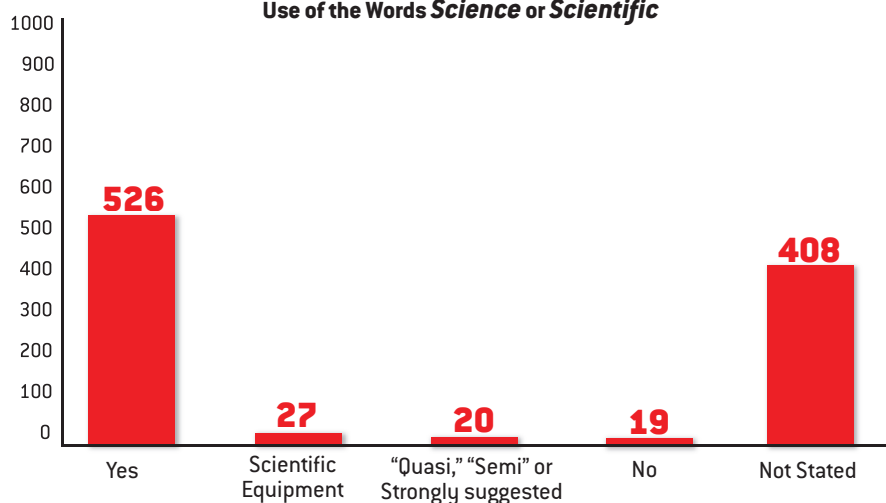
investigation reports online; these reports do not at all resemble scientific reports. Typically, they are not detailed enough for others to duplicate the process, are unreferenced, do not build on the work of others or any established scientific knowledge, and are not valuable beyond perhaps being a record of the investigators’ impressions on that occasion. Many investigation results are confidential on the request of the client, therefore no findings are released.

The use of psychics or sensitives violates Merton’s norm of universalism since only certain gifted individuals can “sense” the spirit present or communicate with the entity. The nongifted cannot confirm or deny such an observation. In haunting cases, the investigator is encouraged to be his or her own instrument, recording psychic or sensory impressions. This constitutes a full-on invitation to engage in biased, subjective, and unverifiable reporting.

The most egregious error made by ARIGs is their bias, which not only violates the norm of disinterestedness but also negates the entire investigation and its conclusions. While claiming open-mindedness, ARIGs are composed of those who hold a preconceived view of a phenomenon and set out to support it (Potts 2004). In stark contrast to scientific writing, ARIG websites will frequently state certainty in their goals or conclusions. Their mission is to “prove” a phenomenon they believe exists or to provide “irrefutable” evidence of same. Even more pretentious are those who wish to “adapt existing scientific laws to reports of the paranormal” or create a “bridge between the science and the paranormal.” That language is a signal of how far removed ARIG participants really are from the established scientific community.

Skepticism is often given token lip service. Several ARIGs say they welcome skeptics. However, what open-minded skepticism *really* means to them is that one is open to the paranormal conclusion as the correct conclusion. The ARIG explanation too frequently defaults to the paranormal after an incomplete examination of alternative natural causes (Baker and Nickell 1992, 101–105; Radford 2010, 11–32). They express resentment of the scien-

Use of the Words *Science* or *Scientific*



tific community for not seeing what they, as paranormalists, view as obvious—that their evidence is convincing. While there are some explicitly non-paranormalist (skeptical) investigation groups, they are few.

ARIGs overwhelmingly display neither understanding of nor adherence to scientific norms. Another dramatic contrast to conventional scientific attitudes is the number of ghost investigation groups that are Christian-based, openly declaring their belief in angels, life after death, and demon infestations *directly alongside* their descriptions for collecting empirical data.

Equipment

Use of technology is pervasive for ARIGs. It is *de rigueur* to include a page on the website dedicated to equipment used. High-end, expensive, or unique instruments seem to be considered status symbols, with some groups advertising the largest or newest array of devices.

Ghost hunter groups rely on their equipment to record spiritual evidence. Several groups express the notion that new technology is the key to a breakthrough in paranormal research. Yet at no site and in no ghost investigation reference book did I encounter a coherent, referenced explanation for the various equipment used and data gathered. ARIGs matter-of-factly state that the equipment records environmental disturbances related to paranormal activity without considering normal variance or calibration.

Reliance on equipment mimics the current television portrayal of paranormal investigation. Television shows give us a simplified and optimistic representation of science (Collins 1987). Science, viewed by laypersons, is about the symbols (such as paraphernalia and certain personal characteristics of scientists) and end products (Toumey 1996). Use of equipment suggests objectivity—others can see the obtained numerical data from which the results are concluded.

Public Acceptance of “Sciencey” Things

Science has considered but provisionally rejected claims of ghosts, cryptids, and alien spacecraft. Yet the public has a high interest in such ideas. To them,

seemingly paranormal phenomena are unknown and deserve serious attention. When most respectable scientists eschew paranormal topics, self-styled experts outside of science step in to provide support and legitimacy for public interest (Westrum 1977). We can say with certainty that there are presently well over 1,000 of these groups active in the United States to serve these interests.

Specialized skills and high standards characterize scientific work. However, hardly any ARIG lists formal scientific training as a desired qualification of its members. ARIG members generally do what appear to be respectable, convincing, and “sciencey” things. The public mostly relies on heuristics, looking for cues that suggest a source of information is knowledgeable and sophisticated. Because much of the public has little understanding of the rigor and practices of science, it is easy for non-scientists to adopt a hollow likeness of science that misrepresents it. The average observer would not have the background knowledge to determine that ARIG portrayal of a “high-tech” paranormal investigation is ineffectual and without a sound foundation in scientific principals. ARIGs deliver sham inquiry—a process that gives the impression of scientific inquiry but lacks substance and rigor.

Those who are anxious about the current state of science education, especially informal science education, may have a justifiable concern about how “reality” popular television portrays the scientific endeavor and who gain public credibility as investigators or scientific researchers. ARIGs often promote their paranormalist viewpoint as scientifically based, especially in community presentations or lectures at educational facilities. While scientifically minded observers can readily spot the anemic and shoddy scholarship of popular paranormal investigation, the public, unaware of the fundamental errors ARIGs make, can be persuaded by jargon and “sciencey” symbols. ■

Notes

1. Such as Galaxy Zoo or the Audubon bird count surveys.
2. Ghost Adventures Crew claims over 600

members (www.webcitation.org/5y3t6VBdK). Neither TAPS nor GAC require any scientific training for affiliated members.

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about exposing sciencey-sounding claims.