

Nuclear Waste, Conspiracies, and E-Meters: Remarkable Religion and Technology

with Sebastian Musch, “*The Atomic Priesthood and Nuclear Waste Management: Religion, Sci-Fi Literature, and the End of Our Civilization*”; S. Jonathon O’Donnell, “*Secularizing Demons: Fundamentalist Navigations in Religion and Secularity*”; and Stefano Bigliardi, “*New Religious Movements, Technology, and Science: The Conceptualization of the E-Meter in Scientology Teachings.*”

NEW RELIGIOUS MOVEMENTS, TECHNOLOGY, AND SCIENCE: THE CONCEPTUALIZATION OF THE E-METER IN SCIENTOLOGY TEACHINGS

by *Stefano Bigliardi*

Abstract. This article is aimed at contributing to the study of the relationship that new religious movements entertain with technology and science. It focuses on an object that is central in Scientology’s teachings and practice: the Electropsychometer or E-meter. In interaction with the general public, such as in a 2014 TV Super Bowl advertisement, Scientology seems to claim a unique relationship with science and technology in the form of a “combination” and a “connection” evoked while displaying this very E-meter. Hence, exploring the teachings related to it is relevant in order to understand how such combination or connection is conceptualized.

Keywords: Dianetics; electropsychometer; E-meter; L. Ron Hubbard; new religious movements; pseudoscience; pseudotechnology; Scientology; technology

Imagine science and religion connecting. Imagine technology and spirituality combining.

Now imagine that everything you ever imagined is possible. Scientology. . . there are higher states of existence.

(Scientology TV Super Bowl Commercial 2014)¹

I propose an overview and analysis of some of the most notable ways in which the E-meter is presented in normative Scientology texts, including

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contrasting them with observations made by critics and scholars of Scientology. My goal is neither to simply paraphrase Scientology's official version of the E-meter's workings, nor to *debunk* it. My ambition is to reflect in depth about its *function* and *symbolic meaning* within various Scientology texts, and to set an agenda for further exploration and discussion among scholars specializing in Scientology.²

I reference the statements made by Scientology's founder, L. Ron Hubbard (and in official Scientology literature), about the E-meter's *workings*, as well as *technical opinions* about what it *actually does*. However, the core of this study is *not* constituted of general observations (or generalized guesses) about *how* the E-meter is used in religious practice, or first-hand scrutiny of it. In other words, this article is not based on an *ethnographic* or *empirical* study of the *usage* of the E-meter; however, the philosophical examination it contains can complement and integrate any such research.³

The first section presents an overview of Scientology and its teachings; a first, functional description of the E-meter is offered. The second section reconstructs the E-meter's history, with emphasis on legal troubles in the United States. The third section is based on Hubbard's presentations of the E-meter. The fourth section sums up various criticisms leveled at the device by authors who negatively criticize Scientology. The fifth section presents some explanations of the device as they have emerged in scholarly literature. The final section addresses the criticism of Scientology as pseudoscientific (and of the E-meter as pseudotechnology), as well as several symbolical values that technology and science carry with them in the E-meter's representation and related teachings.

In the interest of clarity and of integrity I must emphasize that this article, while striving to cover uncharted territory both in new religious movements (NRMs hereafter) and religion and science studies, has no pretense of being *exhaustive*. Scientology's founder was immensely productive. Scientology⁴ is a multidimensional, multilevel, multinational, corporation-like movement. Academic debate surrounding it is flourishing. Legal disputes are complex and numerous. I only mention salient historical events, I base the reconstruction of E-meter literature on select texts, and I only take into account its legal troubles in the United States. This, rather than criticism, should stimulate further investigations.

DIANETICS AND SCIENTOLOGY

The initiatives and teachings that substantiate Scientology stem from the creativity of a science fiction author, the United States–American Lafayette Ronald Hubbard (1911–1986), still lovingly referred to by Scientologists as “Ron.” Hubbard, whom Scientology specialist Hugh Urban defines as an “American entrepreneur” and “spiritual bricoleur” (Urban 2011, 26), released a self-help psychological method called *Dianetics* (according to

him from the ancient Greek terms for “through” and “mind” or “soul”) that he explained in articles appearing, respectively, in *The Explorers Club Journal* and in *Astounding Science Fiction* in May 1950 and in a volume later that year (Hubbard 1950a, 1950b, 1950c). In Dianetics it is claimed that the human mind is impaired by *engrams*, mnemonic traces of traumatic experiences.⁵ The passive part of the mind where they are accumulated is called *reactive*, opposed to the active part, or *analytical mind* (Church of Scientology [CSI] 1998, 16). Through a procedure called *auditing* (from the Latin verb for “listening”), the engrams can be identified and eliminated, leading to the significant improvement of a person’s potential for action and success (CSI 1998, 33–37). An individual no longer having a reactive mind is defined *clear*; before such a release an individual is defined as *preclear* (CSI 1998, 37).

Early on, Hubbard faced intertwined challenges to the recognition, doctrinal integrity, and financial success of Dianetics. His theories were not accepted by the medical establishment from which he initially sought approval (Wallis 1976, 23; Atack 2013, 125). When they gained visibility, they were accused of being pseudoscientific/pseudomedical (Urban 2011, 64–66). Accordingly, harsh criticism of psychology and psychiatry as unscientific and inhumane became Hubbard’s *leitmotiv* (Kent and Manca 2014). Practitioners began discussing, inventing, and implementing their own variants of Dianetics (Wallis 1976, 81). With a series of practical initiatives, among the most important being the incorporation of three new organizations in December 1953 in Camden, NJ (the Church of Scientology, the Church of American Science, and the Church of Spiritual Engineering; Urban 2011, 65), and with the adoption of new lexicon and narratives, Hubbard began presenting the movement as a religion.

In Scientology (according to Hubbard’s explanation from the Latin term for “knowledge” and the Greek suffix denoting “study”) the human soul is defined *thetan* (according to Hubbard from the Greek letter theta representing “life force”), a spiritual unity that goes through a process of successive incarnations (CSI 1998, 17–18). The engrams are attributed to traumatic experiences or “incidents” undergone in lives dating back even millions of years. The thetans’ advancement on the path of improvement is defined in *Bridge to Total Freedom* (CSI 1998, 31, 56). The phases of such advancement through auditing are elaborated in great detail together with hierarchies, auditing procedures, and prices. One of the higher stages in the bridge is defined *Operating Thetan* or *OT* and is said to be able to control *matter, energy, space, and time*, or *MEST* (CSI 1998, 18, 37, 55, 104–09)⁶ that otherwise entrap thetans oblivious to their own creative power.

From a *historical* viewpoint, the Dianetics movement occurred from 1950 until the incorporation of the first Scientology churches. However, Dianetics and Scientology are separate *subjects*, the former (Hubbard’s



Figure 1. The picture shows a HubbardTM Professional Mark Super VII Electropsychometer (E-Meter). Copyright by David Touretzky, picture published with his permission; also available at <https://www.cs.cmu.edu/~dst/E-Meter/Mark-VII/index.html>.

mental health system) being presented as the substudy and forerunner of the latter (Hubbard's applied religious philosophy). However, the lines between the two are at times blurred; most notably, the language and techniques of Dianetics show up in the OT levels.⁷

Although solo auditing⁸ is also practiced, and although auditing is even performed in order to obtain enhancements at the highest levels of the "track," it is usually a session that involves two people, a *preclear* subject and an *auditor*.⁹ The E-meter plays a fundamental role in auditing and, hence, in Scientology's practices and beliefs. The incidents are "audited" through the device in Scientology language. In a handbook authored by Hubbard that I will later discuss in greater detail, it is claimed: "All incidents in this volume should be detected and audited with an E-Meter. If it were not for the E-Meter, these incidents would have remained undetected except in the haziest state. Without the E-Meter, they cannot be audited with security or even safety for the preclear" (Hubbard [1952a] 2007, 12).

There have been eight versions of the device so far (redesigned and repatented). The latest one, called Mark VIII Ultra, was released in November 2013. No *perception* of the E-meter can be *unbiased*; any *description* is already an *interpretation* of it. Besides inviting my reader to observe the picture of an E-Meter that accompanies this article (Figure 1), I attempt here a basic description that will be integrated with further exploration. The E-meter is composed of a principal body, or box, connected by means of two cables to two electrodes in the form of metal cans to be held by the preclear (they are available in different dimensions to fit the hands' size including a version for children). It contains a battery (0.5/1.5 V). Once it is switched on, it sends a small electrical flow through the person who

holds the cans. Variations in the flow result in the movements of a needle in the device's display. The auditor mainly operates two knobs: one, which is bigger, is called the "tone arm." It finely adjusts voltage in order to keep the needle centered and better detect its motions; the second, smaller knob ("sensitivity knob") operates on the flow's gain (i.e., its power or amplitude). The tone arm is adjusted throughout the session. The sensitivity knob, which controls the amplification of the needle movement, is set by the auditor at the start of the session and usually held at a constant for that session. The auditor does not *measure* and register *values* but rather interprets the needle's movements as a consequence of specific questions regarding past incidents the preclear is asked about. The auditor records and interprets needle behavior and phenomena, but also reads and interprets motion and lack of motion with the tone arm. The procedure is not left to the auditor's creativity or improvisation, but prescribed in Hubbard's writings in great detail; in fact auditors undergo intensive and meticulous training. During auditing, the preclear (or pre-OT) cannot see the display, and answers are noted on documents that are not shown to them.

Notwithstanding international legal problems that forced Hubbard to establish his headquarters on a small fleet constantly on the move, he nourished the Church's doctrines and practices through an inexhaustible production of books, articles, and lectures as well as publications controlled by him, though edited by others (Christensen 2009). Dissemination and recruitment became increasingly refined, including the involvement of celebrities and the usage of front groups presented as crusading against violations of human rights or drug addiction.

Hubbard also established marriage, naming, and funeral ceremonies (CSI 1998, 41–43¹⁰); furthermore, he adopted symbols such as a special cross¹¹ and priestly collars, and terms creating or emphasizing Scientology's similarity with extant religions (e.g., auditing was called *pastoral care*, and local organizations *missions*—CSI 1998, 61). However, Scientology was explained in a special lingo that its practitioners had to master and that marked Scientology's identity (Hubbard's neologisms, both newly created and newly conceptualized terms, can be estimated in the thousands).¹²

After Hubbard's death, the leadership was assumed by David Miscavige (b. 1960), currently Chairman of the Board of the Religious Technology Center that manages the trademarks and copyrights of Dianetics and Scientology (CSI 1998, 71). Hubbard has been sacralized: he is not worshipped as a deity, or even considered divine, yet he is considered the preeminent OT who stayed on earth long enough to show others the path. It is claimed that no theological shifts and changes have been introduced; one of the tenets of Scientology is that, since Hubbard's accomplishments were perfect, no deviation is liable to obtain the same results; therefore all critical discussion or creative elaboration is prohibited and sanctioned (Wallis 1976, 230).

A major success achieved by Scientology after Hubbard's death was the church's recognition as tax-exempt by the U.S. Internal Revenue Service (IRS) on October 1, 1993 (CSI 1998, 237).¹³ Scientology officially declares millions of adherents worldwide, yet anti-Scientology activists as well as some scholars claim that such numbers are inflated by even counting people who have been enlisted once for an expression of interest, and that the real figures might reach at maximum 40,000 (see Urban 2011, 205–06; Ortega 2014b). Scientology, not recognized as a religion in most of the countries where it is present, has over the past decades come under considerable criticism by scholars, activists, politicians, former members, and journalists concerning, *inter alia*, legal cases of fraud and abuse, dissemination and promotion methods, status as a religion, claims regarding the scientific status of its doctrines, and truthfulness of the official narratives about Hubbard.

Dianetics was announced as a “science”; “Scientology” clearly carries that very word. Even before engaging with the specific teachings concerning the E-meter, we should remark that “technology” (tech) is a pivotal word in Hubbard's/Scientology parlance, an overarching term designating Hubbard's “discoveries” and teaching, the lexicon in which they are explained and their application. Hence, “technology” virtually means “Scientology's doctrine.” Hubbard was particularly insistent on the intact (“standard”) preservation of the “tech.” He expressed it clearly in a 1965 policy letter entitled “Keep Scientology Working,” a document still used as an introduction to auditor training courses, and displayed in the rooms of Scientology organizations: (1) Having the correct technology; (2) Knowing the technology; (3) Knowing it is correct; (4) Teaching correctly the correct technology; (5) Applying the technology; (6) Seeing that the technology is correctly applied; (7) Hammering out of existence incorrect technology; (8) Knocking out incorrect applications; (9) Closing the door on any possibility of incorrect technology; (10) Closing the door on incorrect application (Hubbard 1965a; for a detailed discussion see Westbrook 2015, 147–49).

The scholar Donald Westbrook suggests that Miscavige's Religious Technology Center, whose declared goal is to preserve the pure application of Hubbard's technologies, is analogous to the Vatican's Congregation for the Doctrine of the Faith (Westbrook 2015, n. 115).

SALIENT HISTORICAL FACTS

Scientology: A History of Man (Hubbard [1952a] 2007), Hubbard's exploration of the thetans' “whole track” (“This is a cold-blooded and factual account of your last 76 trillion years,” [3]) offers this paragraph on the device:

The search of this track began some years ago and was conducted sporadically on many preclears. Various instruments such as electroencephalograph and the police lie detector were used to further this search, but these were inadequate and limited for this search. Finally, Volney Mathison applied his electronic genius to the problem and invented the Electropsychometer. This instrument had a range and ability greatly in excess of anything before known. . . . By adding up and checking probabilities on scores of persons, the character, extent and content of the whole track were mapped. (Hubbard [1952a] 2007, 6)

This paragraph contains a rare expression of modesty by Hubbard; it also hints at the origin of the E-meter with some accuracy. The basic idea behind the E-meter was not completely new, nor was Hubbard the first inventor. Electric devices were used for psychological investigations long before Hubbard, for instance, by Carl Gustav Jung (1875–1961). Volney G. Mathison (1897–1965) was a chiropractor and writer. He invented a “Mathison Psychometer” based on the technology of the Wheatstone bridge (a circuit that measures electrical resistance, invented as early as 1833 by the British scientist Samuel Hunter Christie, but named after Sir Charles Wheatstone who popularized it a decade later). Mathison was actually influenced by Hubbard’s lectures (it is doubtful that Hubbard had any part in its design) and the device was used (although discontinuously) in Dianetics practice as early as 1951. When Mathison refused to turn over the patent rights (whose application dated back to 1951) to Hubbard, Hubbard initially discarded the device claiming that it depersonalized the sessions (Corydon and Hubbard 1987, 313).¹⁴ However, in May 1955 Hubbard came up with a new version (Hubbard 1955) and from that moment the device would play an essential role in Dianetics/Scientology. It was later (1966) patented in Hubbard’s name.¹⁵ Mathison kept patenting, experimenting with, and theorizing about his own versions (Mathison 1952). Notably, the E-meters were *not* patented by Hubbard (and, in the case of later models, by other Scientologists) by fully referencing their interpretation but rather by using a “neutral” definition, such as “device for measuring and indicating changes in resistance of a living body.”¹⁶

The E-meter ran into legal trouble in the early 1950s with consequences stretching to the early 1970s, which left a mark on E-meter-related teachings and official statements. In 1951, the New Jersey State Board of Medical Examiners accused the Hubbard Dianetic Research Foundation Inc. of teaching medical practices without a license. In 1958, the U.S. Food and Drug Administration (FDA) confiscated and destroyed 21,000 Dianazene tablets, a vitamin supplement that according to Hubbard’s claims protected against radiation. In 1963, the Founding Church of Scientology in Washington, DC was raided by U.S. marshals acting on an FDA warrant; hundreds of E-meters, among other materials, were confiscated and the FDA accused Scientology of falsely claiming that the device had

therapeutic properties, both for physical and mental illnesses. The first trial, in 1967, ended with an unfavorable verdict for Scientology: the judge ordered that the confiscated materials be destroyed.

In 1969, the Court of Appeal accepted the religious nature of Scientology and conceded that the E-meter could be used in “*bona fide* religious counselling.” In other words, while acknowledging that the device was part and parcel of religious beliefs and practices, its usage was not questioned—as long as it was maintained in that context. According to the verdict, Scientologists “conceded that the E-meter is of no use in the diagnosis or treatment of disease as such, and have argued that it was never put forward as having such use.” The FDA appealed the decision, but the U.S. Supreme Court declined the request. Finally, District Court Judge Gerhard Alden Gesell (1910–1993), while denying any medical validity to the device (and recognizing that it had been represented as a medical device in the past), ordered the property to be returned to the Church and allowed its use in religious counselling. From that time on E-meters had to be labelled with a clear disclaimer: “The E-Meter is not medically or scientifically useful for the diagnosis, treatment or prevention of any disease. It is not medically or scientifically capable of improving the health or bodily functions of anyone.” However, Scientology adopted a reformulated version: “The Hubbard Electrometer is a religious artifact. By itself, this meter does nothing. It is for religious use by students and Ministers of the church in Confessionals and pastoral counseling only.” Besides, until the release of the Mark V version,¹⁷ the warning was not placed on the device in the “prominent, clearly visible” way ordered by the court (Wallis 1976, 190–92, 197; Urban 2011, 62–63).

THE E-METER IN HUBBARD’S HANDBOOKS

I emphasize once more that the Scientology library (also comprising Hubbard’s 3,000 or more taped lectures) is immense. In order to produce an exhaustive study of the E-meter, one should examine all available texts. I have chosen to principally analyze and quote just four books. The rationale of my selection is twofold: all are downloadable online and all specifically focus on the E-meter, which forms part of their titles.

In *E-Meter Essentials* (Hubbard [1961] 1988), one of the most emphasized concepts is the device’s irreplaceability: “There is no known way to clear anyone without using a meter” (3); “There is no guarantee that scrap or nonstandard meter will behave properly” (4). It is stressed that the device requires constant practice: “The only way known to learn to use an E-Meter is use one, handle one, practice with one. Skill in meter use depends upon familiarizing oneself with the actual meter” (5); similarly, on the following page it is stated: “Get familiar with the meter by holding it, watching it, turning it on and off. Touch it. Reach and withdraw

from it. Play catch with it. Don't just read books about it" (6). The E-meter is described as infallible: "The person who says the meter is not a precision instrument is either unfamiliar with one or has something to hide. The auditor's questions can be off. The meter never is" (5). Another characteristic is that it "knows" more than those who use it: "The meter registers before the preclear becomes conscious of the datum. It is therefore a pre-conscious meter" (6). "The meter 'knows' more about the preclear than the preclear. It is reading created masses he is withholding himself from. The preclear won't confront all he is creating. Hence the omniscience of the meter" (15).

The Book of E-Meter Drills (Hubbard [1965b] 1997) collects several Hubbard texts. Similar to the earliest book, it dwells on the possible behavior of the needle and its interpretations. Eighteen motions are listed: Stuck, Null, Fall, Change of Characteristic, Rise, Theta Bop, Rock Slam ("A wild, irregular crashing of the needle back and forth. Indicates an evil intention"), Free Needle ("A floating needle. Nice regular left and right movement. Indicates a key out."), Stage Four, Rocket Read, Dirty Needle, Clean Needle, Tick, Speeded Rise, Speeded Fall, Slowed Rise, Slowed Fall, Stop (19).¹⁸

The book *Introducing the E-Meter* (Hubbard [1966] 1988) is a compilation of writings under Hubbard's supervision. It opens with a statement betraying the legal troubles the device had been through: "THE E-METER IS NOT INTENDED OR EFFECTIVE FOR THE DIAGNOSIS, TREATMENT OR PREVENTION OF ANY DISEASE" (copyright page). The device is described in physical terms: "This is a Hubbard Electrometer called an E-Meter for short. Technically it is a specially developed 'Wheatstone Bridge' well known to electrically minded people as a device to measure the amount of resistance to a flow of electricity" (1). However this kind of physical description is integrated with statements such as "The resistance of a dead female body is 5,000 ohms and of a dead male body, 12,500 ohms" (3). The device is "humanized": "We in Scientology have come to accept the fact that the E-Meter 'talks' to us" (5). Besides the E-meter's accuracy, much emphasis is placed on Hubbard's efforts to create it: "We rarely give much thought to the hours and hours of work and research put in by L. Ron Hubbard, resulting in the perfect instrument—the Mark V—and an exact exposition of what the various readings and changes mean" (6).

Understanding the E-Meter (Hubbard [1982a] 1989) is also a compilation. One of the opening statements again makes it clear that the device is a religious artifact and is not meant for medical use:

By itself, this meter does nothing. It is solely for the guide of Ministers of the Church in Confessionals and Pastoral Counselling. The Electrometer is not medically or scientifically useful for the diagnosis, treatment or prevention of any disease. It is not medically or scientifically capable of improving the

health or bodily function of anyone and is for religious use by students and Ministers of the Church of Scientology only. (2)

Hubbard makes bold claims such as the following:

Einstein is reported to have said that all an observer should be permitted to do is to read a meter and report the message of the meter. This is true enough. But the observer of a human mind can read it with a meter only if the meter is an accurate and constant meter, and only if he knows what questions to ask. The invention of the Hubbard Electrometer indubitably ranks as another Scientology "first." For here we have the first truly accurate and constant meter ever employed in the field of the mind. If the truth be known, the E-Meter utterly dwarfs such inventions as that of the microscope. (Hubbard [1982a]1989, 6)

It is stressed that the device has been perfected over time: "The first E-Meter was built in 1950 and there have been many refinements made over the years to improve its workability and accuracy. However, the basic principle of the operation of the meter has not changed" (6). Once again its working is referred to basic physical notions: "The E-Meter is an instrument which measures emotional reaction by tiny electrical impulses generated by thought" (6). The itself of *thetan* is expressed in a mixture of Hubbard's original vocabulary and physical terms: "In the physical universe, the only true static is the thetan. The thetan has no mass, no motion, no wavelength, no location in space or in time" (13). There are sentences such as "Resistance can be measured very exactly, and the amount of resistance to an electrical flow is measured in what is called ohms" (46).¹⁹ These however, are blended with statements such as "The required pressure or voltage is determined by the amount of mental mass or resistance present in the preclear" (51). Claims are made that sound like generalizations of empirical/experimental observations; for instance, "Thus, when the preclear thinks a thought, looks at a picture, reexperiences an Incident or shifts some part of the bank, he is using electrical energy to do so, and an electrical disturbance occurs within the electrical field surrounding, or within the preclear's body" (56). It is stated that the use of the device, or *E-metering*, "is a science and an art. A thorough understanding of the E-Meter [instructional] films, the above texts and familiarity with the E-Meter through E-Meter drills will make you a master of this precision instrument" (60).

In addition, we can observe that Hubbard did compare the E-meter to a lie detector used by the police at least once:

The difference between this machine and a police department machine is elementary: a police department machine is just more of it. A police department machine measures respiration, blood pressure, [. . . and] electronic impulse. They measure maybe as many as four or five factors. The point is,

this machine measures solely the electrical resistance of the body. (Hubbard 1952b)²⁰

At other times, Hubbard explicitly distinguished the E-meter from a lie detector and downplayed the relevance of personal information yielded during auditing (i.e., the goal was getting rid of spiritual impediments, not assessing the moral relevance of what the preclears had actually done); however, he did establish specific procedures called “security checks” that, although justified in the general theological picture as merely aimed at the improvement of the preclears, could be—and according to ex-Scientologists *actually were*—used in order to obtain sensitive information liable to be used against the audited subjects: the procedure, in fact, includes questions about the preclears’ sexual behavior, crime records, and possible negative thoughts against the founder (Westbrook 2015, 118, 132–34). Ex-Scientologists admit to the fact that they did perceive/regard the E-meter as an infallible lie detector; it is reported that staff at Saint Hill (Hubbard’s English mansion and central Scientology headquarters over the years 1959–1967) refused to undergo E-meter–based security checks out of fear of what could be discovered about their private lives (Miller 1987, 239). Hubbard also claimed he was using the device in his experiments concerning plants’ feelings at Saint Hill and famous pictures portray him observing a tomato connected to an E-meter by way of crocodile clips and cables (Ortega 2013).

Currently, the E-meter is also used to administer “stress tests” offered to passers-by at stands on the street in attempts at recruiting new members.²¹ Furthermore, to anybody who is interested, Scientology members are eager to administer a demonstration known as a “pinch test”: one gets pinched (usually on the arm) and invited to take up the cans and to think about the “negative memory” to see how the instrument reacts.²²

THE E-METER IN CRITICAL LITERATURE

Articles and books that negatively criticize Scientology abound. They are written, for instance, by disgruntled ex-members or by journalists and activists concerned with human rights violations, with pseudoscience, or with the solidity of Scientology’s claims of religious status, especially as far as Scientology’s credibility and the fiscal policies applied to it are concerned. Academics have also taken critical stands in scholarly articles. When Hubbard’s behavior and teachings, or Scientology’s history are examined, the evidence clearly shows a contempt for human rights, as well as blatant doctrinal inconsistencies; hence objective, historical reconstruction, and negative criticism (or what is considered such by Scientologists) may overlap. Therefore, a binary distinction between critical and scholarly literature

is somewhat simplistic. In this section, we consider texts concerning the E-meter that are explicitly aimed at discrediting Hubbard's teaching and official Scientology claims about it.

A web site that aggregates contributions that level various kinds of criticism at Scientology is David S. Touretzky's. A computer science professor at Carnegie Mellon University, Touretzky, who is principally but not exclusively concerned with the violations of human rights within the movement, has been publicly criticizing Scientology since the 1990s. A whole page of his site is dedicated to links concerning the E-meter, aggregating not only various critical/polemical texts, but also Scientology literature on the device, as well as parodic pieces.²³

Here we can identify at least ten different lines of argument in which the E-meter is criticized. I list them with the indication of at least one piece or article that I could locate on Touretzky's page. Sometimes such lines merge, or one piece better exemplifies the criticism than another. I shall only hint at core arguments without, for the moment, examining or discussing them any further.²⁴

(1) Supposedly "embarrassing" historical facts are pointed out about the E-meter; for instance, that Hubbard did not really invent it, that it was preceded by similar devices, or the history of its juridical troubles (Corydon and Hubbard 1987, 332–32).²⁵ (2) It is pointed out that, although the E-meter definitely detects a resistance, such resistance can hardly be identified with that created by the "mass" of "thoughts"; in other words that the discourse surrounding the E-meter is *pseudoscientific* (Cooper 1971²⁶; Jacobsen 2009). (3) It is stated that repeated exposure to its current proves physically harmful (Lerma 1999). (4) It is stated that an audited subject can manipulate the needle's behavior and thus deceive the auditor, for instance by grabbing the electrodes harder and therefore obtaining a desired motion.²⁷ (5) It is pointed out that the E-meter's very mechanism and interpretation are devised in such a way that it always yields an interpretation advantageous to the auditor.²⁸ (6) It is observed that the resistance of the electric flow is heavily influenced by factors such as the strength with which the cans are held, the extension of skin in contact with them, sweat's salinity, so on (Schafmeister n.d.). (7) It is pointed out that Hubbard was not consistent in his descriptions of the workings and aim of the E-meter (Ortega 2014a). (8) It is pointed out that during auditing, sensitive information is obtained that can be used to blackmail the audited person.²⁹ (9) It is pointed out that the E-meter can underperform or malfunction and some movements of the needle can simply be random.³⁰ (10) It is stated that the E-meter is not worth the price (e.g., 5,000–6,000.00 USD for a Mark VIII) with which is it marketed, actually compelling auditors into owning two units since one may break down (Jacobsen 2009; Ortega 2014a).

THE E-METER IN SCHOLARLY ANALYSIS

Roy Wallis wrote the first all-encompassing scholarly monograph about Scientology, considered from a sociological angle (Wallis 1976). The E-meter is touched upon in several passages. Wallis defines it as “a technological aid which has been developed to assist the process of auditing,” specifying that it is “a form of skin galvanometer operating on the principle of a Wheatstone bridge which measures resistance to a current passing between two terminals”; Wallis does point out that the needle’s movements can be caused by a variety of factors such as sweat, skin surface area touching the terminals, and pressure, but also states that Scientologists are convinced that they can detect, through it, changes in the state of the thetan, and that the device, whose behavior and reading is described with a very complex terminology, is believed to be infallible (Wallis 1976, 116). In Wallis’s interpretation, the usage of the E-meter bestows on meditative exercises “a scientific garb and provides an aura of technological precision and contemporaneity” (Wallis 1976, 122). Another relevant function of the E-meter is, according to Wallis, the standardization of the auditing procedure that becomes semi-skilled, rendering the individual practitioner’s charisma irrelevant (Wallis 1976, 123).

In her extensive monograph on Scientology, Harriet Whitehead (Whitehead 1987) dedicates considerable space to the technique of auditing. She defines the E-meter a “skin galvanometer” (Whitehead 1987, 142) and reports, by referring to scientific articles, both that experiments have shown that “the rise and fall of skin resistance [detected by such devices] seems to follow—instantaneously—changes in alertness, or, more generally, changes in central nervous system arousal,” yet she immediately specifies that galvanic skin response has a “discernible but nonspecific correlation with one’s subjective state” (Whitehead 1987, 143). After some pages in which the E-meter is presented according to Scientology’s normative version, Whitehead raises the doubt “whether any galvanic skin response is, in fact, correlated with preconscious ideas” and whether audited subjects might be “rationalizing” or “fabricating” (Whitehead 1987, 156).

Mary Farrell Bednarowski addressed Scientology in a monograph dedicated to various U.S.-based NRMs (Bednarowski 1989). While briefly touching upon the E-meter, she simply defines it as a “device” used in the auditing process and reports the standard statement according to which “in itself it does nothing” (Bednarowski 1989, 62).

While discussing the topic of the E-meter, Hugh Urban specifies in his monograph that its “primary component” is a Wheatstone bridge (Urban 2011, 49). Urban is more interested in reconstructing the device’s history (together with the role attributed to it by Hubbard) and does not engage in any extensive interpretation of it.

INTERPRETING THE E-METER

We have so far collected a considerable number of observations about the E-meter made by Hubbard/Scientologists and non-Scientologists alike. In what follows, I will mainly focus on five main points: (1) the *pseudoscientific* character of the *language* in which the E-meter is conceptualized; (2) the usage of the terms “religious” as well as properly physical terminology in the interaction with authorities outside Scientology when making statements about the E-meter; (3) the *symbolic function of technology* as it is associated with the E-meter; (4) the *tension infallibility-innovation* in E-meter related teachings; (5) and the *symbolic overlap of the E-meter with Hubbard*.

Clearly, if one assumes the viewpoint of modern physics (defined as the experimental study of the material world according to mathematical models), what is written about the E-meter in Scientology literature can be deemed sheer pseudoscience and the device can be seen as an example of pseudotechnology, or paratechnology at best. The very existence of the engram, let alone its detection by means of resistance to an electric flow through its “mass,” has never been experimentally verified. What *has* been verified is that the electric flow produced by the E-meter is influenced by known physical factors, so that the needle’s motions prove unreliable or easily manipulable; even if we benignly accept the hypothesis that something like the engram might exist, all versions of the E-meter, no matter how up-to-date, are influenced by factors that fatally impair any detection of engrams themselves. The E-meter does not perform with the precision and infallibility claimed by Hubbard.³¹

Hubbard easily constructs pseudoscientific texts. He weaves together terms that *do* have a definition in established physics and others that have a definition *only in his own parlance*. The exact relationship between the former and the latter is often blurred or left unexplained. This is customary in science fiction: one can think of the “technobabble” that peppers *Star Trek* episodes. In some cases, Hubbard makes palpably *false* statements; for instance, when he associates a specific value in ohms to male and female bodies. In other cases, he mixes proper and idiosyncratic terms up to the point that drawing a line between physically accurate descriptions and Hubbardian inventions becomes impossible (and overall the result is a scientifically implausible text). Hence, we cannot simply define the E-meter as a galvanometer or a Wheatstone bridge and go on to describe Hubbard’s account of its use in Scientology; one should be very clear in distinguishing what the E-meter does in acceptable scientific terms, what it does in Hubbard’s terms, and when Hubbard uses scientific terms in his own unjustified and unscientific way.³²

I have reconstructed various attempts at “debunking” the E-meter. Assessing Scientology teachings about the E-meter as *pseudoscientific* means constructing an *etic* (external) discourse, whereas what is believed in

Scientology is *emic* (internal) matter. Most likely, the two competing conceptualizations hardly reach any real collision or even friction.³³ Furthermore, whether the invention and diffusion of the E-meter from the very beginning was *sheer, intentional, and cynical* quackery is a question whose answer cannot be taken for granted and I will not address it here.³⁴ I have decided from the beginning to limit my examination to written teachings and statements and to avoid guesswork. Even so, I can justifiably observe that Hubbard (as well as Scientologists by patenting the E-meter and/or producing official Scientology texts) displayed a certain *astuteness* in the use of language while dealing with extra-Scientology authorities—either to gain external recognition, or when Scientology’s teachings were under attack. By “astuteness” I mean an acute *awareness* both of what is accepted, outside Scientology parlance, as scientific, as well as the capacity to avoid and/or deflect criticism while using a language shared both by Scientology and its critics.³⁵

In other words, Hubbard and Scientologists after him were able to drop both the religious aspects and the pseudo/paraphysical language of “engrams” in some contexts when this proved to be a useful move. The various E-meters were patented (hence acquiring a legitimation from non-Scientology authorities that could be capitalized on) by using essential descriptions that did *not* refer to their religious interpretation/function formulated in Hubbard’s parlance. To this we can add that the adoption of the terms “religion” and “religious” proved advantageous when the E-meter ran the risk of a wholesale ban. The religious connotation was (and still is) useful in the negotiation and defense of a device that was originally presented with a purely therapeutic function, be this presentation sincere or not. Freedom of belief is protected by the Constitution of the United States and, more generally, the religious characterization invites respect and/or deflects scientific scrutiny. This holds for the E-meter as well as for Scientology teachings as a whole.

The aforementioned disrespect toward the legal verdict concerning the E-meter has a similar flavor.³⁶ Not only was the label not placed where ordered, but the very choice of the diction “by itself, this device does nothing” carried a Machiavellian undertone given that the phrasing is utterly devoid of meaning. Such a platitude holds for each and every machine. If the presiding judge’s goal was to warn potential users about the E-meter’s medical ineffectiveness and prevent Scientologists from its pseudomedical usage, the phrasing chosen definitely did not respect his intentions.³⁷

Other avenues of enquiry beg examination and interpretation. As Wallis observed, the E-meter carries a “scientific” or “technological aura”; this mystique adds to the attraction of potential members or the Scientologists’ appreciation of the movement’s teachings. This is suggested both by slogans such as the one employed in the 2014 Super Bowl commercial and

by statements made by ex-Scientists (“I was impressed by Hubbard’s insistence that his ‘Dianetics’ was not dependent on faith but was completely scientific”: Atack 2013, 9).³⁸ Hence, the E-meter seems to benefit from a kind of “appeal” that technological objects, be they demonstrably functional ones or not, can bear (and do in fact often bear). This, however, is not “radiated” by technology *per se*; it is rather the result of a marketing strategy—the adoption of a discourse that associates infallibility and precision to the freshness of an object (the update of a device *can* enhance its efficacy, but not everything that is “refreshed” is necessarily more efficient), or to the very fact that an object seems/is technological. In this sense, the appeal of the E-meter seems to rely on a philosophically naïve conception of technology, but possibly an effective one, marketing-wise.³⁹

The E-meter’s design and its elements have been regularly renewed over time. Thus, the very claim of infallibility had to be reconciled with the idea of freshness and of enhanced accuracy connected to the invention of new versions of the E-meter. This is a constant conceptual tension or oscillation within Scientology’s teachings about the E-meter. However, it is not different from the tension experienced within religions in which a certain doctrine has to be presented as perfect and immutable while actually being adjusted to the challenges of a particular time. (It should be added that the E-meter’s sales contribute to the movement’s profits. This is another practical factor that encourages Scientology authorities to reshape or refresh the discourse about it, as well as the very object.)

This leads to another conceptual aspect: the overlap between the device, Scientology teaching (or “tech”), and Scientology’s founder. It is reported that Hubbard underwent auditing systematically, solo or with an auditor, keeping detailed records for years (Miller 1987, 250; Corydon and Hubbard 1987, 372). The device seemingly fascinated Hubbard as an effective instrument and became more and more significant in auditing, which is the central practice of all Scientology. He was also very insistent on keeping the “tech” “standard”: this held particularly for the instructions concerning the E-meter. This gives the impression that the E-meter and teachings related to it became *the tech par excellence*, but also that it became a symbol of the founder himself to be cherished, used on a constant basis, and faithfully preserved; Hubbard’s identity was conflated in an object, by virtue of the founder’s very teachings and of the way in which the teaching and the device were conceptualized after his death. In fact, it has been argued that Hubbard’s very presence is channeled through the device (Christensen 2009, 427 n. 53). In other words, the E-meter and its use seemingly extend in time and space the *infallibility*, the *reliability*, and the *originality* associated by Scientologists with Hubbard himself as the initiator and first teacher of auditing and the only individual fully versed in its use. (Interestingly, the official name is actually the “Hubbard Electropsychometer”). If this aspect is taken into account, we face two different interpretations that

can actually be combined: (1) the E-meter *bestows* on the whole practice of auditing (and hence on Scientology) an aura of precision and reliability (through a specific, pseudoscientific and rhetorical discourse); and (2) it *inherits* such aura from Hubbard's charisma that it *extends* over time and space beyond his death.

In sum, the teachings concerning the E-meter seem to contain a rather unoriginal and naïve sacralization of technology as infallible, objective, and intrinsically “modern” (and hence “good”) that surrounds each and every technological device that furnishes our world as soon as it is marketed. Such sacralization is intertwined with the sacralization of the founder and faces challenges analogous to other religious discourses. Scientology in general, as well as E-meter–related teachings in particular, cannot be *simply* and *entirely* reduced to pseudoscience/pseudotechnology⁴⁰ or described as the result (or the instrument) of a “scientification of religion” or of a “sacralization of science,” although all these elements seem present. What we discover is rather a complex, multilevel conceptual interplay. Finally, these theoretical observations should be complemented or contrasted with ethnographic ones. I hope that these pages will inspire other experts to carry out further work in the directions indicated.

ACKNOWLEDGMENTS

I am deeply grateful to *Zygon's* anonymous reviewers, as well as to Donald Westbrook, Bernard Doherty, David Touretzky, and Jon Atack.

NOTES

1. Available at <https://www.youtube.com/watch?v=5k0Jec0arOQ>.
2. Westbrook (2014) briefly touches upon the relationship of Scientology and technology and invites the study of its relationship with science.
3. An essay based upon, and thoroughly reporting, first-hand auditing practice (including usage of the E-meter) is Harley and Kieffer (2009). It usefully expands on points not dealt with in this article. However, it reports biographical information about Hubbard that has been proven false (his blood brotherhood to Blackfoot Indians), it does *not* examine the conceptualization of technology, and it does *not* critically engage Hubbard and Scientology as far as their claims related to science are concerned, nor with possible abuses connected to the practice of auditing. Dericquebourg (2010) is also a pioneering work; it examines the reference to “science” as a source of legitimization for Scientology by analyzing the narratives of a significant number of members. However, it does not analyze in detail “science” and “technology” as they are conceptualized in Hubbard's texts, nor does it discuss the E-meter. Suggestions regarding possible fieldwork will be made in the following endnotes.
4. For brevity's sake, I use “Scientology” rather than “Church of Scientology.” However, there exist independent (*Freezone*) Scientology groups outside the mainline church that engage in auditing and use meters of their own design not examined here (see Atack 2013, chapter 33).
5. In the piece for *The Explorers Journal*, engrams are called “comanomes”: according to Hubbard, this term is formed by the Greek ones meaning “unconscious laws” (Hubbard 1950a, 2). It should be noted that in recent editions its vocabulary has been standardized with the rest of Hubbard's writings.
6. I italicize the terms since Hubbard uses them in a special way far from both common and physical usage.

7. Ex-Scientology and author Jon Atack pointed out that “[Hubbard] sold his rights to Dianetics to Don Purcell [a business man who initially supported him], so created Scientology. In 1955, Purcell returned the rights, so Hubbard began to use the term again. He later suggested that Dianetics was the “mental science” and Scientology the “spiritual.” There is no really consistent definition—Hubbard was an opportunist and reframed his terms to suit the situation. . . . I would simply say that Hubbard first called his subject Dianetics, but adopted the term Scientology after selling the rights to Dianetics” (private communication, December 28, 2015).

8. “Solo auditing” is different from self-auditing, which is prohibited in Scientology. Especially when referring to OT levels, solo auditing is the correct nomenclature: technically, one is not auditing one’s *self* but the spiritual entities connected with upper levels. In solo auditing an individual is both the auditor and the “pre-OT.” In fact one of Hubbard’s early books, *Self Analysis* (1951), did contain procedures one could apply to one’s self in a manner that appears to be self-auditing; yet, according to a contemporary source (an online introduction to auditing: <http://www.whatisscientology.org/html/Part04/Chp18/pg0301-b.html>), this is technically inaccurate because the commands come from Hubbard directly, thus preserving the distinction between auditor and PC/pre-OT.

9. There are stages on the “bridge” for which the E-meter is not required during the course of normal auditing (such as the “purification rundown” and the “objective processes” of the “survival rundown”); one is audited with verbal commands/questions or on the basis of instructions. Thus, the device is used to audit but it is not required for *all* auditing.

10. Dericquebourg (2009) describes such ceremonies yet also recognizes that they are neither regularly held nor well attended (this being explained with the centrality of auditing rather than any other activity).

11. Scientology’s cross has four rays symbolizing, together with the arms, the eight dynamics (CSI 1998, 52–54).

12. According to Jon Atack, some of Hubbard’s neologisms in fact conceal contemptuous jokes or betray the real derivation of his teachings. “Dianetics” comes from the Roman goddess Diana that the English occultist Aleister Crowley (1875–1947), of whom Hubbard was a devotee, lumped together with the Egyptian goddess Hathor and that Hubbard adopted as personal divinity; “Scientology” comes from the Greek *skia*, “shadow”; “thetan” comes from the initial letter of the Greek word for “death,” *thanatos* (private communications, December 18 and 28, 2015).

13. Importantly, this exemption is *analogous* to that granted to churches but it is not *tantamount* to an *official recognition as a religion*, a recognition that neither the IRS nor any other U.S. agency can grant because of the separation of church and state implicit in the First Amendment of the Constitution. In other words, the IRS does not decide whether an organization is a religion, only whether it conforms to tax expectations for such an organization, in particular that its monies not directly benefit a single person as well as other requirements (see [https://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/Exemption-Requirements-Section-501\(c\)\(3\)-Organizations](https://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/Exemption-Requirements-Section-501(c)(3)-Organizations)).

14. When referencing Corydon and Hubbard (1987), we must recall that Hubbard (Ronald DeWolf), on whose memoirs and interviews the book is based according to Corydon (himself a former high-ranking Scientologist), made a retraction of his coauthorship prior to the book’s official release that was nevertheless indicated in the first edition (see Hubbard’s official complaint to the Federal District Court of New Jersey, available at https://upload.wikimedia.org/wikipedia/commons/7/73/Ronald_Edward_Dewolf_01_July_1987.pdf).

15. Patent US 3290589, issued December 6, 1966, available at <https://www.google.com/patents/US3290589>. Bent Corydon credits the invention to the Scientologists Don Breeding and Joe Wallis (Corydon and Hubbard 1987, 313); about the history of the E-meter (see also Wallis 1976, 116; Urban 2011, 49–52).

16. For example, US 4459995, July 17, 1984 (<https://www.google.com/patents/US4459995>); US 4578635, March 25, 1986 (<https://www.google.com/patents/US4578635>); US 4702259, October 27, 1987 (<https://www.google.com/patents/US4702259>).

17. Jon Atack, private communication, December 18, 2015.

18. Technically, there are a total of 28 needle actions (since Falls are broken down to different sizes, and F/Ns have different types and handlings). Change of characteristic is an action of the needle and meter, but not “a motion” that gets recorded in one instance.

19. For another example of Hubbard's lyrical/"physical" language, see Hubbard (1982b): "The number of electrons in an atom, the number of atoms in a molecule, the number of molecules in a drop of water is awesome arithmetic. The number of planets in systems, the number of suns in a galaxy, the number of galaxies add up to mind-boggling figures."

20. Also in this lecture the device is personified: "But mind you, this machine has to be cared for. You have to take good care of the machine. And if you get one of your own, for heaven's sakes, don't let anybody else use it. It'll get so temperamental you won't even be able to talk to it" (Hubbard 1952b, 52).

21. In this context I first saw the E-meter, from a distance, some ten years ago.

22. I did not consider my knowledge developed enough without having experienced a "pinch test." I received it with the usage of a Mark VIII E-meter at the Scientology Church in Mexico City on May 17, 2015. On such occasion the needle did move (although I was not able to identify what kind of movement it was according to Scientology teachings). However, while engaging in further conversation with my informants, I thought about a recent bereavement (to me definitely a negative, painful memory) while holding the cans and I noticed no similar motion. Yet the validity of this furtive counter-test can be rejected by Scientologists by arguing that it was not performed in line with standard "tech."

23. In the following paragraphs, I mention directly independent texts (articles, chapters, blog entries) *linked* to Touretzky's page, but I indicate in the endnotes the links to texts, also available through the page, that were *authored by* Touretzky (this also being the case of e-mails he received and that he reports and comments upon).

24. Almost all of these lines can also be found in the *Anderson Report*, the result of an official inquiry into the Church of Scientology conducted for the State of Victoria, Australia and published in 1965 (the informal name is due to the fact that it was written by Kevin Victor Anderson QC). Chapter 14 is dedicated to the E-meter and it is linked as well to Touretzky's page (<http://www.xenu.net/archive/audit/ar14.html>).

25. Available at <http://www.cs.cmu.edu/~dst/E-meter/volney.html>; see also Barrett and Jarvis (1993). Chapter 23 in that book, "The Gadgeteers," by Wallace Janssen (331–35), is reported on at <http://www.cs.cmu.edu/~dst/E-Meter/barrett-quote.txt>.

26. Chapter 18, "The E-Meter," available at <http://www.cs.cmu.edu/~dst/Library/Shelf/cooper/sos-18.html#c1>.

27. Testimony by Martin Hunt; reported at <http://www.cs.cmu.edu/~dst/E-Meter/fake-fn.txt>.

28. See "Making the Needle Twitch," <http://www.cs.cmu.edu/~dst/E-Meter/bouncy-meter.html>.

29. Martin Hunt reports he was punished after confessing to having faked the needle's movements in a previous session. In her 1999 senior thesis, Laura Kay Fuller deals with Scientology and totalitarianism and relates the E-meter to a totalitarian ideology of science as infallible and as justifying, in its turn, the ideology itself (Part 3, "Technology," available at <http://www.cs.cmu.edu/~dst/E-Meter/fuller.html>).

30. See, for instance, <http://www.cs.cmu.edu/~dst/E-Meter/rockslam.txt>.

31. Not possessing the technical competence and the experimental data, I cannot express myself concerning its physical harmfulness. David Touretzky, who informed me that Mr. Lerma was trained as an electronics technician and used to repair E-meters, specified that "there is no physiological basis for his claims about the harmful effects of E-meter current" (private communication, February 1, 2016).

32. More specifically, Hubbard tapped into the language of *physics* and of *medicine*. The E-meter carried a "therapeutic" aura, especially in its earliest days. People approached Dianetics because they envisaged in it potential for some kind of betterment related to healing and curing. In Hubbard's writings we can still clearly read statements that involve medical notions. For instance, in *History of Man*, about a certain kind of incident he states: "when audited on a long series of people, [it] was found to eradicate such things as asthma, sinus trouble, chronic chills, and a host of other ills" (Hubbard [1952a] 2007, 103).

33. A question related to the emic/etic tension concerns the appropriateness of the expression "E-meter demonstration," applied to the aforementioned "pinch test." No doubt, it is a hands-on experience; it is presented as a demonstration of the *specific fact* that the device detects a "negative memory." However, it is set up and performed in such a way that does not really allow us to say that it is a "short version" of auditing. For instance, during real auditing the

display is not visible by the preclar. This, once more, points to the complexity of the emic/etic interaction as well as to the necessity of integrating conceptual analysis with ethnographic work.

34. In a charitable interpretation, Hubbard might have been *sincere* in his convictions that he was applying (a) science. I refer here not only to the specific claims made about the E-meter but also to the very idea that Hubbard had discovered a new (branch of) science on which a new practice was founded. In other words Hubbard, his collaborators, and his followers might have been sincerely convinced they were utilizing science and gradually grew paranoid when it was not recognized by the establishment. This, however, entails a complete misunderstanding of the practice of peer review. Moreover, Hubbard bragged about nonexistent academic/scientific qualifications in physics (as testified by his biographers). Whereas it is too late (and perhaps not even that relevant) to interview Hubbard about his knowledge of proper science and how he related it to his teachings, it would be much more interesting to establish whether there are, *nowadays*, any Scientologists who by virtue of their education, studies, readings, so on entertain a *standard* concept of “mass,” “resistance,” “Wheatstone bridge,” and so on, and, in that case, how they negotiate such concepts with the teachings they accept in their capacity as Scientologists. Finally, although we can safely state Dianetics at the beginning was perceived and presented as a therapy, it is unclear whether auditing is *nowadays* proposed, perceived, and practiced as alternative medicine. In order to argue this, one should be able to demonstrate that Scientologists are systematically induced/inclined by religious arguments to discard traditional cures in favor of auditing alone. This is, to the best of my knowledge, an unexplored point.

35. “From a governmental and outsider perspective, the label clearly delegitimized the instrument, but functionally the ruling has led the church to more clearly embrace the meter’s use as a ‘religious artifact.’ As such, the meter can be quantifiably used for the purposes of auditing as Hubbard always intended, and meanwhile legally validated (ironically enough) as a theological tool, which further legitimated the church’s claims to genuine religious status” (Westbrook 2015, 119).

36. In fact, the label on the current model (full name: Hubbard Professional Mark Ultra VIII Electrometer) slightly differs from previous ones: “This electrometer is a religious artifact intended only for use by Scientology ministers, ministers-in-training and other qualified parishioners, as a guide in confessionals and counseling to help locate the source of spiritual travail. By itself this meter does nothing, and is neither medically or scientifically useful for the diagnosis, treatment or prevention of disease. Ownership or use of this meter by anyone not in good standing with the Church of Scientology is prohibited” (Donald Westbrook, private communication, February 29, 2016).

37. However, we should remark that there are many ways to get around even more precise statements; the “medical aura” of a procedure, substance, or device basically lies in the eye of the beholder. If someone is or was convinced that Hubbard was an unjustly prosecuted innovator and that the E-meter was an effective therapeutical aid, any label would hardly dissuade them from using the device. I am not convinced that one can talk any Scientologist out of Scientology by pointing out the pseudoscientific character of the E-meter as well as its potential for abusiveness and deception, no more than one can convince devout Catholics to leave their church by demonstrating that the wine does not turn into blood during mass or that information yielded during a confession can be used to blackmail a believer. The point is not that (or whether) Scientology is a genuine religion. It is rather that Scientology, *however defined*, is a *complex cluster of beliefs and practices that are embraced from a unique existential perspective by each single Scientologist*. Beliefs and practices are intertwined and the strength with which they are entertained most likely depends on individual experience. Scientology, however we see it, has reached a degree of complexity, or interaction between institutional and theoretical elements, that renders the existence of any single, knock-down argument quite unlikely. True, one can object that Scientology is not self-consistent because it claims to be scientifically validated and it is not; however because of the very features of the language invented by Hubbard, the term “science” itself acquired such an idiosyncratic meaning that, in all likelihood, inconsistencies cannot be detected internally (emically) anymore.

38. Such isolated statements should, however, be contrasted with the results of general surveys like Dericquebourg’s, who concludes: “Scientologists do not spontaneously refer to science in order to validate their creed. This is due to the diverse ways Scientology uses to present

itself (spirituality, development methods increasing self-efficiency, and a doctrine relying upon science, indeed even a new science in itself), which is reflected by its followers. Nevertheless, when asked to quote some aspects of science that validate their creed, they resort to a reappropriated, 'ad hoc' kind of science coming from a 'vulgate' that directly stems from the media—far from academic science" (Deriquebourg 2010, 758).

39. Again, its "aura" or "appeal" is due to a precise *marketing strategy* (visual as well as verbal) and not necessarily to the sheer *fact* that it is (some kind of) a machine. Besides, its perception might radically change in the framework of different individual situations—for instance, to one who is audited for the first time and a long-time Scientologist for whom the E-meter has become a familiar object, part of a routinized practice. In other words, the idea of "infallibility" does not derive from the mechanical nature of an object but emerges in a discourse. Furthermore, nothing is *intrinsically* "reliable" or "up-to-date." The perception of reliability and up-to-datedness is a matter of *comparison* (it being conscious or not). Therefore in order to solidly argue that the E-meter bestows "seriousness" or "reliability" on Scientology, we should observe data concerning the Scientologists' (comparative) assessments of the different versions of the E-meter over time (as well as of "non-Scientologists," or "neophytes," upon their first encounter with it, which proves a more difficult field to investigate). It is also doubtful that people only choose to join Scientology because they perceive it as more "technological" and up-to-date (this in an ideal scenario in which one would be confronted with different religions and asked to choose—which hardly corresponds to real-life paths). To the best of my knowledge, no research in such direction has been undertaken yet. Therefore, general statements about the E-meter/Scientology's technological appeal still seem conjectural as far as Scientology's actual perception is concerned.

40. NRM scholars are often accused of being indulgent with the movements they study as far as ethical issues are concerned. This is a particularly delicate point given the reputation of Scientology. Although this is an article about Scientology teachings, some words must be dedicated to auditing as a practice. To start with, I do not want to underplay its potential for unethical usage. Very intimate events can be taken up in the process and eventually used against the preclears. However, this is not a specific problem of auditing but of any similar practice, be it religious or not, in which sensitive, personal information is disclosed. Also, if one accepts that the E-meter is pseudo/paratechnology, where does deception lie? Clearly, the device is not a disguised "lie detector" simply used to yield sensitive information from subjects who believe they are engaging in "pastoral practice" (in fact not even lie detectors proper are considered reliable). We can also exclude the idea that deception is the auditor's entire responsibility. Most probably, auditing is a complex *folie à deux* which does not follow the same pattern in each and every session, thus escaping generalizations, deeply depending on the specific persons involved and on their relationship besides the institutional one. Given the numerous cases of the needle's movements and the complexity of the factors that can affect it, insincerity, if any, must be on both sides. In addition to the specific instructions with which they have been trained, auditors can rely on preclears' language, tone, response speed, and a whole range of verbal and nonverbal cues in order both to interpret the needle's movement and guide the session. Emotional investment exists on both sides. People discuss traumas in the hopes of eliminating their negative effects. Preclears might fake a motion in order to end an uncomfortable session, but they might also want to believe that the process works, allowing spiritual advancement and intra-Scientology social prestige. Auditors in their turn want to believe that the process is valid and the preclear is being helped. Furthermore, critical discussion of any procedure is strongly discouraged in Scientology and persistence in scepticism can lead to sanctions. Each part, even if we exclude the blatant, self-conscious intention to deceive the other one, has strong reasons not to look critically at the process nor to cast doubt on it. (For this note and for the very expression *folie à deux*, I am indebted to Dave Touretzky).

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