Mediating the Spirit: Machines, Protocols, and Policies for the Mediation of Spirituality in the Medical Field

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Introduction

In the introduction to the book "The social life of spirits", Diana Espírito Santo and Rui Blanes announce that they are exploring how "different conceptualizations of an 'agency of intangibles', sets out to unravel the contingency of various 'entities' on their effects" (Blanes and Espírito Santo 2013, 1). The set of objects that emerge from this interest are related to modes of existence and the effects of invisible or intangible domains. "Whether these are constituted by spirits, quarks, the law, or money value." On the one hand, this purpose follows the general perception that "most of the things that affect us as human beings are invisible, disperse[d]; we cannot touch them as we would do to objects or confine them to a particular essence, space, or time." On the other hand, this purpose also "follows from anthropology's urge to engage with extramaterial forms of sociality and practice" (Blanes and Espirito Santo 2013, 3).

In this text, I am also interested in the agency of intangible things. In this case, however, what I want to discuss is not spirits as entities that act on the world, but medical researchers' efforts to transform humans' spirituality into a concrete, inscribable, measurable, materialized entity. Interestingly, therefore, I am also investigating the "social life" of spirits to analyze the practices and socialities used to deal with various material forms. However, in my case, the actors with whom I lived and whose development of the intangible control and management techniques I accompanied were not religious mediators of the sacred, but scientists.

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Since the 1980s, the volume of publications in medical journals on the impacts of spirituality on health has grown substantially. Methodologically broadly diverse, these surveys often come to conclusions such as "if you are more spiritual, you are less likely to have a heart attack," "more spiritual people have greater resilience in situations of depression," etc. Given this type of formulation, it seems to me fundamental to ask: what does this use of medical, scientific language in the field of spirituality mean? How can spirituality be measured and aimed at in these researches? What are the spirit's production practices? In this text, I am interested in exploring some of these issues. In doing so, I try to contribute to this book by analyzing aspects of the different scales of spirituality (and, by extension, of mediumship) and the modern scientific technologies participating in scaling the phenomenon.

In the following sections, I analyze how spirituality has emerged (and has been constituted) in the medical sciences, based on the analysis of these three domains of its production: a) political, examining research on resolutions from the World Health Organization (WHO); b) clinical, considering the establishment of a specific diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders; c) in research, through reflections about the methodologies used in medical-scientific studies about possible correlations between health and spirituality. On this latter topic, I underline that I will specifically focus on analyzing the instruments employed by researchers, whose objective is to identify, isolate, and interpret the spiritual condition of people and its effects on health. I am particularly interested in the creation and use of these technologies, which range from questionnaires to mapping brain activity, because, as I will argue, these devices not only constitute forms of "access" to spirituality, but are also essential mediators for spirituality to emerge as a clinically visible, assessable, and actual entity for physicians and researchers. Thus, I shall now focus on these three modalities of spirituality production by analyzing official documents, academic texts, interviews, and the fieldwork I have conducted with research groups dedicated to the subject in Brazil. I maintain that these three dimensions that enact spirituality are articulated and, although they materialize spirituality in different ways, they operate in a game of mutual reference, in which one reinforces the relevance of the other. After all, spirituality in the medical universe occurs on multiple scales and, somehow, expands the very scales of circulation of spirits in the world in which we live. Before the empirical analyses, I must discuss the way that I frame spirituality here.

Spiritualties Enacted

In mid-2016, the Journal of Social Sciences and Religion published a dossier dedicated to "spirituality." The introductory text, by the Mexican anthropologist Renée de la Torre, presents the articles of the volume and establishes the analytical milestones that justify presenting texts on Hinduism in the West, popular devotions, ecology, and entrepreneurship in Argentina—all under the umbrella of spirituality. To that end, De la Torre does not resort to any definitions of the term, but instead outlines a set of characteristics whose recurrence, despite the spectrum of

variations, indicates a discernible field. The author states that spirituality "refers to less dogmatic practices, that are distant from the norms and canons of religions, which are becoming increasingly individual, subjective, intuitive and emotional" (2016, 10). The autonomy of the subject in the search for a personal "relationship with the sacred and with the transcendent," the author continues, incorporating the dialogue with Charles Taylor (2007) and Maria Julia Carozzi (1999a), is increased "by the rejection of institutional control and authoritarianism" of religious institutions (2016, 10). Thus, an elementary contrastive principle is established without resorting to a categorical definition of spirituality: spirituality is not a religion, or, even more radically, "spirituality appears as the result of the extraction of beliefs, meanings, experiences, values and a coexisting with the sacred from the institutional contours," thus constituting a kind of "exit from religion" (2016, 10). In these terms, the dossier initially reflects an established theoretical tradition that, at least since the 1970s, calls for religion to develop what spirituality is. Among the authors who contributed to this perspective are Paul Heelas and Linda Woodhead, who in a joint text asserted:

> Spirituality is a personal form of the sacred, emphasizing internal sources of meaning and authority and the cultivation or sacralization of private life. Thus, it contrasts with more conventional conceptions of religion that emphasize the transcendent source of meaning and authority to which individuals should conform (Heelas; Woodhead, 2005, 6).

If this is the analytical key capable of transcending and, in turn, amalgamating the empirical diversity presented by the texts collected in the dossier published by Social Sciences and Religion, then the postface that closes it, written by Alejandro Frigerio (2016), serves to bring to the surface the multiplicity of definitions that surround the concept of spirituality; at one point emphasizing the ways of using spirituality as an analytical category, while at another as an object of analysis, Frigerio demonstrates the close link between some of these definitions and the New Age studies (Carozzi 1999b), indicates their classical roots in the sociology of Max Weber and Ernst Troeltsch, and explains contemporary developments in new categories such as "self-spirituality" (Heelas 1996), "alternative spirituality" (Sutcliffe and Bowman 2000), "spirituality of life," "holistic spiritualties" (Sointu and Woodhead 2008), "subjective life spirituality" (Woodhead 2010), "reflexive spirituality" (Besecke 2001), and "post-Christian spirituality" (Houtman and Apers 2007).

I am little interested in offering a new definition of spirituality or even attributing characteristics to already established concepts in this text. Here, I opt to start from the recognition that the challenges of the reflections on and analyses of "spirituality" are not due to a scarcity of or lack of consensus surrounding the concept, but rather, on the contrary, that they arise precisely from the abundance of definitions or, to be more precise, from the fact that each description offered produces and is supported by specific empirical discourses and configurations. In conceiving spirituality as the central object of my reflections, I would like to point out that what is most important is to perceive how this profusion of definitions is related to an equally profuse set of enactments that institute spirituality and mediators that stabilize this production.

In this text, my focus is on the analytical relevance of treating spirituality as the historical product of discursive processes and the forms of relationship with religion, which are varied yet not determined. It is, as such, an approximation to the agenda of investigations of spirituality as proposed by authors like Courtney Bender and Omar McRoberts (2012), whose first postulate is not to treat religion or spirituality as categories with nuclei, identities, or stable qualities. Neither assumes that spirituality is necessarily something that either dissimulates or opposes religion (as stated in the formula "spiritual but not religious"). Thus, while I recognize that spirituality may itself be an avatar of religion in certain situations, I refuse to blindly assume a categorical relationship between spirituality and religion (Bender 2007; Taves and Bender 2012; Ammerman 2013).

For this reason, I do not set out from a concept of spirituality, but rather from a methodological principle. The various definitions of the term are of interest as objects of analysis and not as analytical categories. The similarity between this procedure and what Talal Asad (1993, 29) says about religion is reasonable. Perhaps this parallel measure becomes somewhat more evident in the paraphrase of another phrase from Asad (2001, 220): to define "spirituality" is first and foremost an act. This means that spirituality as a category is continuously being redefined in differing social and historical contexts and that people have specific reasons for defining it in one way or another (Asad 2001). This perspective seems to elevate the debate surrounding spirituality to a new analytical plane, distant from the classic philosophical and theological skirmishes on the subject and marked by the contributions of Foucauldian political philosophy, in which the concept and its characteristics are situated in the games and power struggles that both form and transform them historically.

To some extent, to assume this analytical method is the very condition for answering Peter van der Veer's call for "the politics of spirituality" (2009, 2013), that is to say, how this category produces realities, enacts players, and mobilizes institutions. The politics of spirituality, thus, does not concern a concept, but rather a kind of methodological recommendation that insists on the need to understand the uses of the spirituality category within its context, from the configurations of power and knowledge with which it is articulated every time it is cited. For example, in his works, Veer shows how the term was central to colonial modernity in India and China. In these two countries, the idea of spirituality was established in different ways, although in both of them, it has served as an essential means of connecting with the West. The statement affirms the suggested link between modernity, starting with the "colonial encounters" it produced, and the category of spirituality, forged at that time, according to Veer, as a concept of universal and trans-historical understanding, capable of producing a Western framework for such practices found in those countries.

Although I will not be dealing with the spirituality in India or colonial China in this text, I will present part of the anthropological discussions of the category starting from an analysis that, like Veer, presents the idea as a product of articulations between discourses, practices, and institutional configurations and introduces

specific dimensions of the debates that I have sought to deepen, as well as indicates the theoretical-methodological key that underpins my reflections.

Decreeing Spirituality

In this section, I do two main things. First, I explore how the official WHO documents created political conditions to develop research on spirituality and health. Second, I indicate that the most relevant process that these documents triggered was precisely that of a change of scale, moving from a particular cultural issue to a universal human aspect.

In May 1983, during the 37th World Health Assembly, a historic decision was made: the "spiritual dimension" was integrated into the health strategy program of WHO member states. Fourteen years later, the entity's executive committee's special panel, set up to revise its constitution, proposed that the preamble to the document, which defines health, be changed to read that health is a dynamic state of complete physical, mental, spiritual, and social well-being, and not just the absence of disease or infirmity.

In January 1998, the executive committee members endorsed the proposal, and the WHO adopted the resolution (Khayat 1998, 2009). The sum of these three facts suggests a timely and political widening of the debates about "spirituality" within the WHO. Incorporating the term as a pivotal compass for the Member States' strategic programs of the health organization was the first official step in legitimizing the link between spirituality and health within that agency. With this, the previously marginalized debate has been scaled up. Over the following fifteen years, attempts to extend the legitimacy of the spiritual factor have altered the very concept of health in the preamble of the organization's main document.

Certain researchers (see Khayat 1998) consider the 37th General Assembly of the World Health Organization, which took place in 1983, to be the founding event of debates on spirituality within the institution. During that event, representatives from 22 countries sent a resolution proposal to the Assembly, requesting the inclusion of the spirituality factor to determine human health. This forwarding of the proposal met with specific resistance. Doctor M. Savel'ev, the delegate for the Soviet Union, elected as the spokesperson in this debate for countries "in which the Church is separate from the State," while not taking up a counter position to recognizing the importance that the spiritual dimension has upon the health of people from some member states of the WHO, did not subscribe to the resolution, and further pointed out… "that the Director General [of the WHO] will encounter difficulties in considering religious aspects in the elaboration and the development of primary care programs" (Khayat 1998).

The problem pointed out by the Soviet delegate indicated what would be the precondition for establishing spirituality as a legitimate category in the WHO's interface with health: teasing out what distinguishes it from religion. The proposers of the resolution seemed to be conscious of the necessity to establish this differentiation, as can be seen in another report published by the WHO on the sequence of those debates:

> despite the progress we made, there was a semantic difficulty in using the term, which threatened the debate. Some delegates increasingly mentioned religious beliefs, and the meaning of the "spiritual dimension" seemed to be losing clarity. Dr. Al-Saif again took the floor to assert that the project was not based on any specific religious belief. "Anyone who thinks that the draft resolution has religious or dogmatic implications is wrong. We are trying to mention nothing more and nothing less than the spiritual side of people and not the religions or the doctrines they follow" (Khayat 1991, 78–79).

The difference that arose in dealing with the relationship between religion and spirituality in the WHO can be summed up in the following contrasting points: while spirituality is a part of people, religion is a doctrine that may or may not be followed. The religious collective formed by culture or adherence contrasts sharply with the spiritual foundation forged within human nature. According to the Egyptian delegate's report, the resolution was received and accepted by the WHO Board of Directors at the end of the Assembly.

Four months later, in May 1984, the final document related to this request was published. It stated that it is "necessary to recognize spirituality as a human dimension." Apart from this document, the Assembly also approved the WHO incentives for scientific research to monitor techniques and evaluate people's spirituality.

Thus, as the literature on spirituality had already identified the establishment of this category by the WHO is also based on its separation from religion. However, since all difference is a form of relationship, to state that we face the same formula ("spirituality is not religion") means little if what moves us is analyzing the relation's production and not the possibility of formulating an imagined substantive difference. The analytical gain does not lie in the diagnostic of a virtual difference in itself, but rather in perceiving how the difference is enacted. If, for analysts and "natives" of the esoteric field and New Age, spirituality is not a religion because the former institutes a form of relationship with the sacred that rejects institutional mediation, which further emphasizes subjective experience and values individual paths, for the WHO, spirituality is not a religion because the first constitutes a human dimension, while the second does not. This is the lapidary synthesis of one of the most cited texts in medical sciences on the subject. For its authors, spirituality is not an elective feature, a cultural factor that people may or may not possess, but rather a substantial element, invariably shared by all—or, in the literal quotation from the text: "an inherent component of the human being" (Tanyi 2002, 500).

The judgment of the cited medical sciences has yet another important dimension: to the degree that the WHO itself recommends scientific research to deepen its understanding, the agency thus promotes an ontological shift in regard to spirituality, one that is no longer fixed as a dimension of human health, but instead becomes an essential dimension of the human being. The subtlety of the shift in words implied in this transformation should not lessen the assessment of its impact on the kind of wording that WHO resolutions have contributed. As I will show below, both in clinical areas and in research, the understanding of spirituality as a quality of human beings has become a constant—which, however, does not signify that it is always elaborated in the same manner. Theological and philosophical

frameworks of spirituality had already conceived it as inherently human, and we have sufficient literature that deals with this. However, the novelty is that medical knowledge currently also debates the theme, obviously mobilizing its means and mediators.

From this discussion, we can move towards the scientific practices of scaling up spirituality from a culturally specific phenomenon, purified as religion, to a universal human reality that can be measured and that scientific methods can engage with.

Diagnosing Spirituality

In 1994, another milestone was achieved in the debate about spirituality in the medical sciences and health management institution policies. At that time, the American Psychiatric Association released the fourth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), a reference document for teaching institutions and the revision of daily procedures for psychologists and psychiatrists in the world. Among the newly established diagnostic categories in the DSM-IV was a particular interest: religious or spiritual problems.

V62.89: This category can be used when the focus of clinical attention is a religious or spiritual problem. Examples include distressing experiences involving loss or questioning of faith, problems associated with conversion to new beliefs, or questioning of other spiritual values which may not necessarily be related to an organized church or religious institution (American Psychiatric Association 1994, 685).

The anthropological debate over the DSM's range of editions is extensive (Mezzich et al. 1999; Jenkins 1998). The DSM is a device for enact and organize realities. That is to say, it is a document that inscribes things in real-life fields, not merely describing what has been observed, but determining in advance what must be seen. The DSM has created another modality of health, which is the first of two aspects that I wish to highlight. The new diagnostic category established in the DSM strengthened the field of research on health, spirituality, and religion, which had already been gaining legitimacy, at least since the publication of the WHO's resolutions. As Everton Maraldi, a researcher at the Institute of Psychology at the University of São Paulo (USP) said in an interview: "The DSM softened up the taboo there was about simply talking about religion or spirituality. After the publication, the theme became worthy of research. After all, we needed to understand the mechanisms of diagnosis better."

In that period, the mid-1990s (see Toniol 2015c; 2018), there was a sharp increase in medical research on spirituality, a phenomenon that can be attributed in part to the formulations about spirituality made both by the WHO and in the DSM. Recognizing that the process of legitimizing the medical-scientific debate on spirituality and health is associated with the effects of both publications does not mean that these documents' views of spirituality and its relationship with religion and the human being converge.

Among the characteristics of the diagnostic category established in 1994, I will highlight three aspects. Firstly, the introductory text of the DSM-IV underlines the effort of that edition of the document to widen the "cultural sensitivity" of the established diagnostic frameworks so that the manual could surpass its emphasis on the biological aspects of human behavior. For David Lukoff, an American researcher who prepared the request to incorporate the diagnosis of "spiritual or religious problems" in DSM-IV, the former, restricted emphasis favored the deferral of his claim, since, in his words, "the religious and spiritual dimensions of culture are among the most important factors that structure the patterns of human experience, beliefs, values, behavior, and disease" (Turner et al. 1995, 435).

Lukoff's statement and the diagnostic category formulated in DSM-IV establish spirituality as a cultural aspect of a universal principle, the characteristic "structuring of religious and spiritual dimensions within the human experience". As with the spirituality proclaimed by the WHO resolutions, the version instigated by the DSM also boasts a certain universalism. In the WHO's case, the universal foundation of spirituality serves its favorable evaluation, finally becoming one of the necessary dimensions of well-being for the affirmation of health; in the DSM's case, the recognition of its universality is the basis for justifying a diagnosis of psychiatric suffering. The pronounced convergence of the WHO and DMS in instituting spirituality as a universal element implies a broad spectrum of relationships between spirituality and health, ranging from a strong positive correlation (there is only health when there is spiritual well-being) to an inverted association that makes spirituality a factor of potential disturbance. In the next section, I will demonstrate how this variation of spirituality types is further reflected in the technologies employed in scientific-medical research that are dedicated to evaluating the impact of this "factor" upon health.

The second aspect I would like to stress further in the definition of the diagnostic category instituted in the DSM-IV is religion and spirituality. I suggest that the inferred relationship is synthesized in the American Psychiatric Association's opting to use the alternative "or" rather than the connective "and" in the formulation of the category "religious or spiritual problems." Unlike sentences on spirituality that aim to ward off the term "religion", here the juxtaposition of the two categories does not seem to be an immediate problem. Equally, the two terms' use indicates that, as close as they may be, neither are they synonyms nor is the use of either of them random.

A set of contrasts that illustrate the subtlety of these approaches and the differentiation between religion and spirituality in the field of health can clarify the apparent coincidence in WHO and DSM-IV formulations by insisting that, for the World Health Organization, the difference lies in the universal status of spirituality, to the detriment of the particularism of religion, whereas, for the American Psychiatric Association, religion and spirituality are, equally, structural dimensions of human experience. That means, therefore, that the difference between religion and spirituality in the DSM-IV is found on another level, namely, in the types

of cases of psychic suffering that either of them provokes. If the religious and spiritual disorders share a single diagnostic category, the processes of illness associated with one or the other are still distinct.

In the teaching manuals on diagnosis, a typology with three "models" of impairment for "Religious or spiritual problems" is mentioned: loss or questioning of faith; problems associated with conversion to new beliefs; and the question of other spiritual values that are not necessarily associated with any organized Church or institutionalized religion. While the first two cases, examples of religious problems, are associated with changes in the dogmatic commitment of the subject to his or her religion or religious community, the third example establishes a framework for problems created in non-institutional contexts, which in the DSM means the issues classified as spiritual. The DSM provides brief introductions to cases that, according to a manual with information regarding diagnosis, summarize common examples of the first two kinds of illnesses:

> [Loss or questioning of faith]—S. is a 58-year-old Euro-American woman who had progressive liver disease for two years. Before her illness, she attended church regularly and used her free time in church-related charitable activities. When she received the diagnosis, she interrupted her involvement with the charity and stopped attending church services, claiming she "no longer felt the need to worship a fantasy." During her fourth hospitalization, she was told her illness was not responding to treatment and that her death could occur in the coming weeks. After discharge, she became clinically depressed, refused to take any medication, stopped eating, and spent her time looking out of the room or reading books and complaining that "God had abandoned her." (Lukoff 2004, 18)

> [Problems associated with conversion to new beliefs]—Manson Spero described the case of a 16-year-old, a member of a Jewish family, who underwent a sudden religious transformation, becoming increasingly Orthodox. Drastic changes in his life, which included long hours of study of Jewish texts, avoidance of friends, and long fasts, led his family to seek help from a psychoanalyst. An examination of mental state determined that the young man did not have schizophrenia or other disorders initially considered. From then on, the therapeutic process was directed to analyze the impact that the religious option caused in his relationships (Lukoff 2004, 21).

Regarding the third type of illness, the kind related to spirituality rather than institutional religion, Lukoff clarifies that "in DSM-IV, spiritual problems are defined as distressing experiences involving the relationship of a person to a being or transcendent force, but which are not necessarily related to any church or religious institution." According to the author, sometimes "such experiences result in the intense involvement with spiritual practices such as meditation or yoga" (Lukoff 2004, 30). The diagnosis becomes valid when the process of "spiritual emergence" that arises from experimentation with such practices unleashes mystical experiences that go out of control, turning into a spiritual emergency (Lukoff 2004, 30). The emblematic clinical case is the account of the experience of David Lukoff himself, which was directly responsible for the inclusion of the category "religious or spiritual problems" in DSM-IV:

> My interest in spirituality and mental health goes back to 1971 when I spent two months in a spiritual crisis—convinced that I was a reincarnation of Buddha and Christ with a messianic mission to save the world. In my clinical practice as a psychologist and my work with the Spiritual Emergency Network over the past 25 years, I have often met with individuals in similar situations. In 1994, my work in this area culminated in the inclusion of the Religious or Spiritual Problem category (V62.89), of which I was a co-author (Lukoff 2004, 3).

Finally, the third and final characteristic of the diagnosis is that its use is related to the therapeutic context; after all, the definition given by the American Psychiatric Association states that "the category may be used" when the religious or spiritual problem becomes the "focus of clinical attention." This aspect points to the dual dimension of spirituality in the field of health that I have so far explored: on the one hand, the recognition of spirituality as an element of nature, while at the same time being an aspect of human health, established in WHO Resolutions; and on the other hand, spirituality as an aspect of necessary clinical attention, since the category, equally related to human nature, is instituted in the form of diagnosis. Added to these two dimensions is a third, which approaches spirituality not through health management policies nor the creation of diagnoses, but rather through medical-scientific research.

Researching Spirituality

Medical sciences' growing interest in the relationship between health and spirituality has already been verified and reflected in other works (Hill and Pargament 2003; Koenig 2008). Global indicators of the impact of this field include the consolidation of postgraduate programs on the subject at research centers at Columbia, Duke, Harvard, and Yale Universities, as well as a significant increase in the number of publications dedicated to the matter in scientific journals and the regular offer of courses on the subject at universities in Europe, the United States, and Latin America (see Toniol 2015a). In this context, Brazil is recognized as a prominent place for research and has consolidated itself as one of the countries with the highest concentration of academic publications on the subject (Lucchetti and Lucchetti 2014).

To investigate possible correlations between spirituality and the processes of cure and illness, it is necessary to isolate the "spiritual factor" and make it emerge as apprehensible data in the analysis and plausible in relation to other data. For example, to investigate correlations between depression and spirituality, one must capture the studied subject's spirituality using methodologies and research instruments to make it visible, apparent, and recordable in medical records.

Among the technologies that health researchers employ to capture spirituality are questionnaires, whose development is directly associated with psychology's consolidation as a discipline. Suffice it to say that in 1904, James Bissett Pratt, a philosopher and founder of clinical psychology who earned his doctorate under

the mentorship of William James, developed a questionnaire whose primary purpose was precisely to understand experiences as being "authentically religious" (White 2001). Following the ideas that James had already formulated in his classic book "The Variety of Religious Experiences," published in 1902, Pratt's questionnaire, as well as others elaborated by his students, emphasized emotions and subjectivity as determining factors of the experience with the sacred, paying less attention to formal aspects of cults and religious institutions. As Christopher White (2001) pointed out in his comments on these early twentieth-century research studies: "James and his students turned to studies on the psychology of religion to understand the nature and sources of belief. Linked to questions about individual religion, these questioners themselves suggested that the essence of religion lies within the self" (White 2001). Pratt's questionnaires, provided in White's research, are clear as to the author's understanding that "religious institutions, rites, and communities are less important. The essence of the thing to be researched—the essence of true religion—is the inner experience" (idem).

The relevance of James and his students' contributions to the theoretical-methodological field of clinical psychology concerned with religion is not limited to the conception of religious experience as a phenomenon relative to the self or subjective individualities. As Christopher White (2008) has extensively demonstrated, this understanding was forged since the eighteenth century by American Protestantism itself, the heir to Calvinism. James' works novelty was to construct theoretical and methodological mediators capable of making this understanding of the nature of religious experience emerge, also in these terms, but as scientific data rather than as theological dogma.

The epistemological ballast established by James in favor of the pertinence and validity of the use of this type of research instrument is also found in the work of other authors who, throughout the twentieth century, continued investigating the subject (see Toniol 2015b; Toniol 2018). Regarding these contributions, I will refer to other texts (Alvarado and Krippner 2010) and thus allow myself to take a historical leap of almost a century to 1999, when the World Health Organization published a tool to measure the quality of life; it included a module dedicated to spirituality. It is a publication aligned with James's work. It uses the survey as a methodology of analysis and also because it makes spirituality emerge from a story's content. Much more than this, following the WHO's publication, as with James' work, dozens of other instruments for the capture of spirituality were created by health researchers within a short period. Among these new tools are the Brief Multidimensional Measure in Religiousness and Spirituality (BMMRS) and the Daily Spiritual Experience Scale (DSES).

The concreteness of spirituality, which emerges as the person being surveyed responds to the questionnaire, is enacted in both the BMMRS and the DSES through an index, that is, a number capable of escaping the indeterminacy of the experience, making it apprehensible and quantifiable. Despite possible differences between institutional religion and spirituality, the two intersect. Firstly, the references to institutional religious practices contained in the questionnaires are more related to the protective factors associated with community life than to the impact

that the relationship with other believers can have on spiritual experiences; for example, the following items appear on the BMMRS: If you were sick, how many people from your religious community would help you? How often do people in your religious community get in touch with you? How often do people in your religious community criticize you and the things you do?

The second common aspect of the questionnaires is the number of mentions of "God." For example: The DSES formulates a question about the frequency of the "presence of God," and the BMMRS contains a question about the constancy of the feeling that "God has abandoned me." The relevance of references to such ideas is that they operate as mediators capable of bringing out the negative aspects of spirituality. That is to say, when the experience with the divine entity becomes markedly punitive and persecutory, a person's spirituality ceases to promote and starts to compromise the indicators of health, well-being, and quality of life.

Medical sciences' methodologies in evaluating spirituality describe it in a clinical language and mainly establish their ontological reality. And thus, the spirituality that emerges from the questionnaires is experience-centered, measurable, translatable into a numerical index, and, if well conducted, wholesome. Nevertheless, this is not the only way that medical sciences capture spirituality and gives reality to this entity.

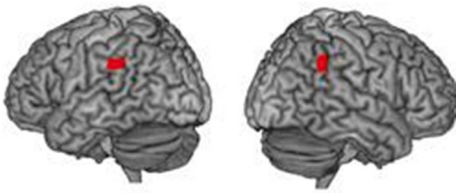
At the Federal University of Juiz de Fora, the researchers from the Nucleus of Research in Spirituality and Health (Nupes) have invested in other research methodologies into spirituality. The use of neuroimaging technologies stands out. Such studies, despite the wide variation of their designs, can be divided into two main models, as researcher Alessandra Maineiri summed up in an interview: "functional investigations, which means, those interested in and aimed at discovering how the brain works and which areas of the brain are more and/or less activated during the phenomenon of spiritual experience"; and investigations aimed at "brain structure, which are more interested in whether there are major or minor brain areas among people who experience this type of phenomenon."

The phenomena to which the researcher is referring are mostly prayer, meditation, and trance. "With neuroimaging research," says Alessandra, "we have the means to investigate the differences between these phenomena and also understand how the brain works during the occurrence of such phenomena." The collection of data in this research involves mapping people's brain activity while in states of meditation, prayer, or trance. This is the case of a survey conducted by members of Nupes in collaboration with researchers at the University of Pennsylvania comparing the activated areas of the brain during the trance of Spiritism mediums while performing psychographic activities, compared with when they write texts when not in the trance state (Peres et al. 2012).

Interesting here are not the results of these studies, but rather the methodology they employ to make spirituality emerge as an observable entity. In this method, spirituality assumes the form of an image that expresses either a region or a set of established connections in a particular terrain of existence: the brain. However, to

find evidence of spirituality's physiology, the researchers resort to religious practices, such as prayer and the mediumistic trance. Thus, while in the questionnaires used to measure spirituality, religion appears mainly through the community of believers, which can be configured as either a protective or a stress factor for the mental health of the evaluated subject, in neuroimaging technology, it is the forms of religious practice, not the community, that are related to spirituality.

The possibility of comparing the type of spirituality that each of these methodologies reveals does not end at the interface of each of them with religion. Another important aspect is the quality of the variation of spirituality that they comprise. When extracted from the questionnaires, spirituality is expressed in a number that denotes its tested level in the particular individual being analyzed. In this case, the metric is a universal one. After all, it is based on the assumption that all humans have spirituality; but the result is specific, since it responds with individual variations in the degree of such spirituality. When neuroimaging examinations are engaged in the capture of this clinical entity, the spirituality described is not that of the individual analyzed, but of all kinds. Conclusions of this kind are suggested in the article "Brain surgery boosts spirituality," published in the journal Nature in February 2010:



Removing part of the brain can induce inner peace, according to researchers from Italy. The study provides the most substantial evidence that spiritual experience arises in, or is limited by, specific brain areas. (…) "This is the first study that analyses spirituality closely. We are dealing with a complex phenomenon that is close to the essence of the human being," says co-author Salvatore Aglioti, a cognitive neuroscientist at Sapienza University in Rome. "The authors identified two parts of the brain that, when damaged, led to increases in spirituality: the lower-left parietal lobe and the right angular gyrus" (Weaver 2010).

The role of the personal account as the main witness of the spiritual experience, as in the methodology of the questionnaires, is assumed here by the body itself; more precisely by the brain, which ends up inscribing spirituality in the register of the biological markers, of the order of nature. Since difference is not a property of things, but of relationships, when spirituality establishes itself in these terms, its interface with religion also acquires other contours: "Previous studies have shown that a vast network of frontal and parietal brain connections is related to religious beliefs." Nevertheless, with this study, we can begin to realize that spirituality and religion do not involve exactly the same regions of the brain (Weaver 2010). Thus, in these studies, not only is the brain the place of spirituality, but it is also the grounds—and the proof—of spirituality's difference from religion.

The flourishing of this type of research on spirituality is not disconnected from a broader process seen in the psychiatry's move towards analytical models that are closer to those of evidence-based medicine, as other authors have already observed (Beaulieu 2001; Prasad 2005). Jane Russo, while discussing the changes in the way psychiatric diagnoses are considered, has described what can also be observed about the studies of spirituality in which the closer these are to neuroscience models, the more significant the academic impact:

> The empirical objectivity of the signs and symptoms ideally corresponds to the empirical objectivity of the physical substratum. That is, psychiatry will only have the guarantee of neutrality in the case whereby it relies on what is concrete, material, empirically observable, quantifiable, and reproducible through examinations and devices, represented by the organic substratum so that it can be plausibly translated into the language of biology, physiology, neurochemistry, and genetics. The objectivity of psychiatric diagnosis is equal to the detachment of the physiological and organic substratum (Russo 1999, 128).

To make spirituality emerge as an image produced by brain-mapping technology is a rhetorically powerful way to legitimize the debate about spirituality within medical science. This methodology that makes us see is also an act of creating what is to be seen. Thus, it produces a subtle shift between the epistemology of science that describes spirituality and the action of the object's ontological foundation. But that is not all.

Since 2015, in the geriatric psychiatry clinic of the Hospital das Clínicas (HC), linked to the University of São Paulo, a study developed by an interdisciplinary group of health professionals makes use of an innovative tool for capturing spirituality: the spectrographic and auditory perceptual analysis of prayer. The use of this methodology in research in the field of psychiatry is not uncommon; for example, Ozdas et al. (1999) described the existence of a significant correlation between vocal characteristics in the therapeutic set and short-term suicide risk; Cassol et al. (2010) analyzed associations between the voice and psychological aspects of patients with obsessive–compulsive disorder; and Stassen (1993) described the vocal characteristics common to schizophrenic psychotic patients. In the research carried out at HC, the objective is to find correlations between the spirituality profiles of evaluated subjects obtained from the previously described instruments (BMMRS and DSES) and their vocal patterns when uttering prayers. The collection of data follows this protocol: the voice of a preselected person in line with the research criteria is recorded in three situations; first, he or she is asked to perform speech that is both automatic and predetermined, such as the sequence of the months of the year or the days of the week; second, this recording is followed by another in which the person recounts in detail some fact about their life; finally, the analyzed subject is requested to "pray," leaving open the possibility of saying prayers automatically, that is, those learned by heart, or spontaneously, that is, those without any pre-established structure.

The voice record is transformed into a visual spectrum that indicates variations of tones, harmonic structure, and frequency. The image formed by praying is then converted into a series of specific phono-audiology indicators produced by professionals separate from the researchers involved in the data collection (Fig. 1).

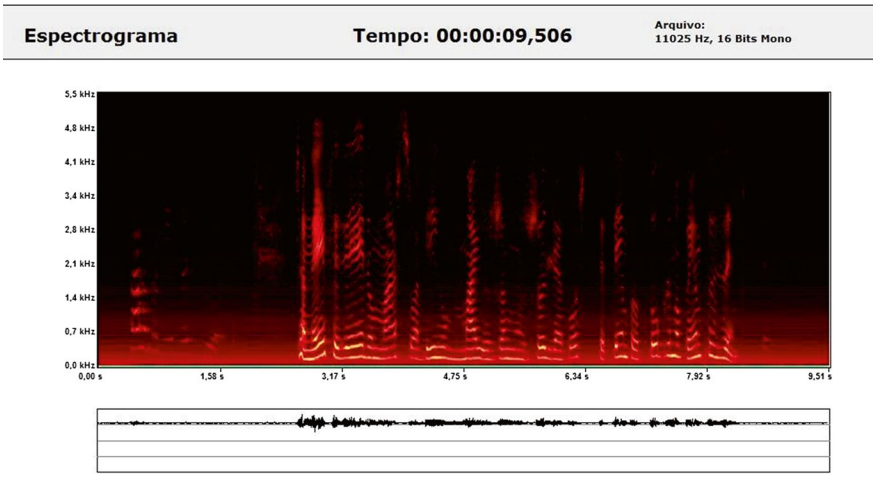


Fig. 1 Image of the spectrogram of prayer, provided by the researchers—Software Fonoview, CC-BY

When this type of technology is used, as with neuroimaging, once again a specific form of religious practice, prayer, that unlocks the data on spirituality. However, while what is at stake in the brain-activity mapping examinations is to find the generic location of spirituality by observing the effects that certain forms of a stimulus (meditation, trance, and prayer) produce, without dwelling on the particularities that these forms may have among individuals, the spectrographic analysis of prayer operates in quite a different way. In it, individual prayer is transformed into data that enable mapping spirituality quality, rather tant what is and what is not spirituality. To do this, the researchers worked from two concepts forged back in the 1960s by Gordon Allport and Michael Ross (1967): intrinsic spirituality and extrinsic spirituality. Letícia Alminhana and Alexander Moreira-Almeida delineated the meanings of these two terms well and further indicated certain developments they have achieved in clinical research:

> Extrinsic religiosity is associated with religious behavior that seeks outside benefits, status, security, and distraction. One turns to the sacred or God, but without detaching oneself from the self. On the other hand, intrinsic religiosity is associated with a sense of ultimate meaning in life. The person seeks to harmonize their needs and interests with their beliefs, striving to internalize and follow them completely. As Allport says, making a comparison between the two guidelines: "the extrinsic [people] use their religion, while the intrinsic people experience it." Using this differentiation, Maltby found significant results that showed negative associations between religiosity and psychoticism. (…) In the results, the intrinsic but not the extrinsic religious orientation was negatively associated with psychoticism (Alminhana and Moreira-Almeida 2009, 155).

To summarize, the intrinsic version of spirituality is a factor that benefits health, whereas when it is extrinsic, spirituality can cause problems. Supported by the distinction the quotation suggests, we can say that we are facing two qualities of spirituality, one positive and one negative.

The Hospital das Clínicas researchers expect that the spectrographic analysis of a significant number of collected spoken prayers may indicate the existence of differing vocal patterns of people with extrinsic and intrinsic spiritualties. In this case, the methodology serves not only to delimit the reality of spirituality, but also to establish differences in spirituality. With this, it is worth further pointing out that, although it also depends on how the individual under study speaks, in contrast to the questionnaires, spirituality is performed (as a datum) through the enunciation form and not through the content of what is said.

As I have been emphasizing throughout, the analysis models of spirituality employed in the field of health act by establishing the possibility of the existence of this "entity," whether in the form of a numerical index, a place in the brain, or an image of a sound wave. To seek to explain how spirituality is "enacted" from a series of devices does not deny that scientific fact is also a deed; in light of that, my bet is on the variations that the forms of the act have upon the reality. Therefore, one should not discredit the facts but rather believe—and note the consequences—of each state of the deed.

Conclusion

Christopher White, in an entry titled "Belief-Science" in a publication dedicated to the genealogy of the spirituality category, made the following comment: "If traditional religiosity is in decline, where people who were previously religious and now identify themselves as spiritualized; are they consolidating their interpretations of God, spirit, life after death, and other related ideas?" He continued: "What is the raw material that is forming the new beliefs about the transcendent kingdoms, gods, and souls? I bet that this source is science" (White 2001). I have no empirical material to support this assertion, nor does White seem to possess sufficient underlying support for such a sweeping idea. However, if I were to disagree with White's statement about science as the address of attention and formation of the subjects' belief principles identified as "spiritualized," I would still recognize in it a valuable implication for this text: science is concerned with spirituality.

I Will shift White's attention from the interest of spiritualized subjects on science, to insist on the necessary reflection on the interest of science in spirituality. The use of the term "interests" here, initially applied by Callon (1984), is helpful because it evokes two essential aspects of the process of producing spirituality that I have described: a) one of the desired effects of interest is to create stabilizations; b) a wide range of devices (political, scientific, analytical, etc.) need to be engaged to achieve stabilization. The interests, it is worth noting, do not produce cohesion, but imply establishing a matrix capable of harboring dissensions among players. Some of the meanings of the term "interest" other than the methodology it implies make it clear that not only is it important to politically, clinically, and scientifically highlight and analyze the diversity of ways of performing spirituality, it is also important to recognize that there is, within dissent itself, a plane of convergence that establishes that spirituality is a health issue. And it was in this dynamic that

I sought to situate this text, analyzing the variations in the ways of producing spirituality as a political, clinical, and scientifically actual entity; insisting that variations do not fracture it but, on the contrary, make its reality even more plausible.

The recurrence and legitimacy that the spirituality category has acquired within medical science, and even in the international and national agencies of public health management, is not simply deduced from the number of publications dedicated to the subject. This phenomenon's extent and intensity are related to the fact that spirituality is increasingly becoming a category that allows health agents to change the way they organize their reality. This is why this text's conclusion does not point to any definition of what spirituality is, but, alternatively, insists on observing the variations of this category each time it is performed. To sum up, it is not a question of stating a priori the place and the characteristics of spirituality, but rather of analyzing the articulations between the definitions of spirituality and the devices committed to making it real.

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