



**The Francis-Louden Mystical Orientation Scale (MOS):
Theoretical Assumptions, Psychometric Characteristics and
Empirical Research of an Instrument for Measuring Mysticism**

**The Francis-Louden Mystical Orientation Scale (MOS):
Pressupostos Teóricos, Características Psicométricas e Pesquisa
Empírica de Instrumento de Mensuração de Misticismo**

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Abstract: The present study investigates the Mystical Orientation Scale (MOS), a psychometric instrument developed by Leslie J. Francis and Stephen Loudon to measure mystical experiences. Grounded in classical theories of mysticism by authors such as William James and Frederick Crossfield Happold, MOS operationalizes mystical experiences into measurable constructs, providing a reliable framework for empirical studies in the psychology of religion. The article explores MOS's theoretical foundations, factorial structure, and psychometric properties, highlighting its validity and consistency in different cultural contexts. Despite its wide application in European and English-speaking countries, the study points to the absence of adaptations for Latin American populations, underscoring the need for future research that expands its cross-cultural applicability. MOS is a versatile instrument for exploring the relationship between mysticism and variables such as mental health, well-being, and religiosity. The present work advances the scientific understanding of mystical experiences in contemporary psychology by discussing the potential for scale adaptation. It launches a critical call for creating a version of this vital instrument in Brazilian Portuguese.

Keywords: Mystical Orientation Scale (MOS), Mysticism, Psychology of Religion, Psychometric instrument, Psychometrics.

Resumo: O presente estudo investiga a Escala de Orientação Mística (Mystical Orientation Scale - MOS), um instrumento psicométrico desenvolvido por Leslie J. Francis e Stephen Loudon para mensurar experiências místicas. Fundamentada em teorias clássicas do misticismo de autores como William James e Frederick Crossfield Happold, a MOS operacionaliza experiências místicas em construtos mensuráveis, oferecendo uma estrutura confiável para estudos empíricos na psicologia da religião. O artigo explora os fundamentos teóricos, a estrutura fatorial e as propriedades psicométricas da MOS, destacando sua validade e consistência em diferentes contextos culturais. Apesar de sua ampla aplicação em países europeus e de língua inglesa, o estudo aponta a ausência de adaptações para populações latino-americanas, ressaltando a necessidade de pesquisas futuras que ampliem sua aplicabilidade transcultural. A MOS é apresentada como um instrumento versátil para explorar a relação entre o misticismo e variáveis como saúde mental, bem-estar e religiosidade. Ao discutir as potencialidades de adaptação da escala, o presente trabalho contribui para o avanço da compreensão científica das experiências místicas na psicologia contemporânea, e lança em bases críticas chamado para criação de versão deste importante instrumento em língua portuguesa do Brasil.

Palavras-chave: Mystical Orientation Scale (MOS), Misticismo, Psicologia da Religião, Instrumento psicométrico, Psicometria.



The present work aims to present to the Portuguese-speaking readers of Brazil and discuss the operationalization and measurement of the mystical experience through the psychometric instrument *Mystical Orientation Scale* (MOS), developed by psychologists Leslie J. Francis and Stephen Loudon (Francis & Loudon, 2000a). In this way, it sought to explore its theoretical basis, psychometric foundations, and current practice in empirical research in psychological science. MOS is widely used to investigate and report on individuals' experiences and their mystical experiences. It allows researchers to explore the relationship between mysticism and other psychological variables such as well-being, religious beliefs, and spiritual development (see Hood Jr. & Francis, 2013).

Thus, the article permeates the studies of mysticism in the psychology of religion, presenting fundamental authors such as Williams James (1902/1982), responsible for theorizing the four aspects that characterize the phenomenology of mystical experience; Hood (1995; 1997), a precursor of the unfolding of theory into psychometric instruments for the investigation of mystical experience, and Stace (1960), who, in turn, is concerned with the phenomenological view of experience, a theory on which Hood himself bases his theoretical understanding of the phenomenon.

These ideas laid the first foundations for the psychological understanding of mysticism, formed by dimensions that described how difficult mystical experiences are to express in words because they bring deep *insights* into the nature of Man (James, 1902/1982) and Reality (Stace, 1960), being fleeting and subjective but having a great impact on the lives of individuals (Barros & Schultz, 2023). In this way, Leslie J. Francis and Stephen Loudon contribute to synthesizing the theories in force in the field of psychology of mysticism, up to the present moment, in an instrument that can rigorously measure these individual experiences.

A not-so-recent critique locates the existence of discrete literature in the study of mysticism from different methodological and theoretical traditions, which remain largely ignorant of each other, which is one of the most significant difficulties in generating a consensus in the area (Hood Jr, 2008). If, on the one hand, the integration



of this theoretical corpus calls for a contemporary approach to mysticism in a transdisciplinary enterprise, with an emphasis on mixed studies, which do not neglect the phenomenological level of observation, and which is inclusive of the findings of contemporary research on the brain bases of mystical experience and its cognitive correlates, however, the call for refinement of measurement in the psychology of religion is still urgent (Emmons & Paloutzian, 2003), and in the search for reliable and valid instruments to operationalize in empirical research the vast network of constructs that build the psychological field of religion (Schmautz et al., 2024; Andersen, Holmøy, & Stewart, 2024), including the theme of mysticism in its various coastlines: the study of the dimensions of mystical experience, mystical ecstasy, the parameters of consciousness involved in the mediation of the mystical mind, and the phenomenological and phenomenal dimensions of which mysticism as a psychological reality is constituted (Trivedi, 2024; Skolits, 2024; Esmaeili, Pourmohammadi, & Sayyid-Mazhari, 2023; Nascimento, 2008).

As major trends in current studies of mysticism, there is a race to discern the brain bases that mediate mystical-type experiences either in individuals from the general population or those from clinical populations (Picard, 2023; Esmaeili, Pourmohammadi, & Sayyid-Mazhari, 2023), to confront competing approaches in cognitive neuroscience of religion, which includes the "inefficient brain activity" approach and the "normal output of the brain nervous system" approach. There is a certain theoretical stagnation and predominance of interest in studies with a framework in evolutionary psychology as responsible for the narrowing of vision in the field, and the need to take seriously literature from empirical research in neuroscience, psychology and anthropology as paradigmatic cases for displacing this conceptual fixation and thus enabling the emergence of new insights for the research of the foundations of mysticism and religious experience (Skolits, 2024).

A third trend that emerges in the field is the emphasis on interdisciplinarity and methodological pluralism, triangulating data from the neuroscience of mystical experience with psychological constructs measured by new, more reliable instruments with better transsectional performance, in different domains of psychological research, such as studies of translation and cross-cultural adaptation of scales such as the Mystical Experience Questionnaire (MEQ-30) from English to Norwegian



(Andersen, Holmøy, & Stewart, 2024), and proposing new instruments such as the measurement of ocean feelings in the context of the primary emotions model postulated by Jaak Panksepp for use in neuroscience research (Schmautz et al., 2024).

This last research effort is a thermometer of this new time of multilevel observation of mysticism, and of deep dialogue between different theoretical and methodological traditions, in which the phenomenological study of mystical experience is still held in high esteem, as is the recent research with Brazilian university students with the resumption of the Jamesian framework to capture the essential phenomenological dimensions of the phenomenon in question (Nascimento, Melo, Ferraz & Roazzi, 2023), however, there is a resumption of old concepts in the area of psychology of religion and mysticism such as oceanic feeling, which represents a powerful phenomenological structure of affective sensations that commonly involve feelings of unity, self-dissolution, and transcendence, in psychometric capture (Schmautz et al., 2024), which confers precision and possibilities of intercomparison between groups of different mystical traditions and/or even between orientations enriching the contemporary empirical basis of mysticism studies, which is quite desirable for the advancement of theorization (Trivedi, 2024; Skolits, 2024; Esmaeili, Pourmohammadi, & Sayyid-Mazhari, 2023).

Studying mysticism is important for psychology because of its role, as it is for broader religious and spiritual experiences, in promoting profound transformative changes in individuals and communities; its beneficial effects are well documented in fostering positive attitudes such as compassion, empathy, and altruism, and the modification of beliefs (Barros & Schultz, 2023). However, the rigorous scientific study of mystical experience is currently hampered by the scarcity of psychometrically valid and reliable instruments; two instruments are the pillars of this research tradition (see Hood Jr. & Francis, 2013), represented respectively by the Hood Mysticism Scale; Hood, 1975), and the Francis-Louden Mystical Orientation Scale; Francis & Loudon, 2000a), the focus of this reflection. It should be noted that the situation of empirical psychological research on mysticism is worrisome in Brazil; although there are many instruments of religiosity, there is a gap to be filled for the measurement of mysticism; there is a single-item subscale taken from the Global Religiosity Scale of Nascimento



(2008), which measures the construct, making it urgent to construct autochthonous instruments or the creation of versions of instruments such as the two mentioned above to provide an instrument-specific psychological analysis for the construct in the empirical research of Portuguese speakers in Brazil.

Therefore, this theoretical study, delivered in the genre of presentation essay, aims to investigate the validity and reliability of MOS, working with the literature survey of the main empirical studies carried out with this instrument of mysticism in different contexts. It also observes the psychometric notions that define it as an instrument capable of fulfilling what it proposes. And finally, it grants an opening for new adaptations, such as in Brazil, since no studies still use it in this cultural context.

PSYCHOLOGICAL STUDY OF MYSTICISM: DEFINITION AND HISTORICAL ASPECTS

William James (1902/1982) characterizes mysticism as the religious experience par excellence, as he considers it a primary experience from which less elevated forms of religiosity derive. The author states that the mystical experiences of consciousness are the basis of personal religious experience. Ralph W. Hood (1995; 1997) follows this perspective, based on the phenomenological work of Walter Stace (1960) on mysticism, which exposes the phenomenology of mystical experience, stipulating its introverted, extroverted, and interpretive aspects. In this way, Hood (1995; 1997) sought to integrate the conceptual model of mystical experience proposed by Stace (1960) with his empirical investigation of mysticism.

To define the mystical experience, James (1902/1982) describes it based on four main defining factors. The first is ineffability because the mystical state permeates the ineffable aspect, taking into account the difficulty of the human being in describing or explaining through words what the experience of the mystical experience would be. The second defining factor is the noetic value, which expresses how the mystical state resembles a moment of knowledge, *insights*, and revelations in which, even if not articulated, they produce a significant mobilization in the individual's life, as well as can trigger a sense of authority in the person who lives the mystical experience (Louceiro, 2007).



The third defining factor is Transiency since mystical states do not last long. When these states dissipate, they are often remembered inaccurately by memory. Studies conducted by psychologists Pierre Weil (1989) and Ken Wilber (1998) on Transiency indicate that the mystical experience can be considered a "peak experience." This is since the state reaches its peak during the period it occurs, but when it ends, it cannot be revived or reproduced similarly. Even so, part of the mystical experience remains in the memory of those who experience it, not being completely lost (Louceiro, 2007).

The fourth and last defining factor is passivity since the mystical experience has as a precise characteristic the feeling that only the will to experience it is not enough for it to occur because it is as if a superior force were in charge of the individual, his desires are suspended in this state. It is important to note that the emergence of mystical experiences can be facilitated by concentration training, such as meditation. However, this does not cancel out the passivity character of the mystical state (Louceiro, 2007).

Evelyn Underhill, one of the greatest critics of William James's perspective, presents a distinct approach to mysticism in her work "*Mysticism: A Study in the Nature and Development of Spiritual Consciousness*" (1911). Underhill defines mysticism as "the art of union with reality," emphasizing that it is not just passive, ephemeral experiences but an active and systematic process of spiritual transformation (Underhill, 1911, p. 4). The author above argues that the mystical path involves prayer, moral discipline, and reflection, culminating in a profound personal and spiritual metamorphosis. Therefore, it rejects the idea that mysticism is a passive and transcendent experience. It is better understood as an evolutionary process towards the divine, which cannot be reduced to moments of ecstasy because it is a self-transformation process requiring discipline and perseverance.

The contrast between James's and Underhill's approaches has not only broadened the understanding of mysticism but has also influenced the way modern psychology approaches and measures mystical experience. While James' perspective sheds light on the transformative and unique character of mystical experiences, Underhill offers a practical vision that explores how people can seek out and integrate these experiences into their everyday lives.



The empirical measurement of mysticism represents an ongoing effort by psychology to transform spiritual and subjective experiences into operational constructs. Such an approach allows for applying scientific methods to understand the dimensions of mysticism and its implications for the lives of individuals and society as a whole (Paloutzian & Park, 2005). Researchers have developed psychometric instruments that capture the essence of these experiences and their behavioral and emotional effects to achieve this goal.

One of the main challenges in measuring mysticism is related to the subjective and often ineffable nature of these experiences. According to James (1902/1982), mystical experiences are challenging to describe or capture by ordinary means, complicating the attempt to transform them into measurable variables. With the growing interest in studying mysticism empirically, researchers faced the challenge of operationalizing and measuring mystical experiences. This movement sought to transcend philosophical and theological descriptions, moving towards a scientific and measurable analysis of mystical states.

The psychometric approach to studying the phenomenon of mysticism is highly effective and relevant in evaluating mystical experiences within the Psychology of Religion. An example is the Mysticism Scale developed by Hood, which stands out as a successful tool for measuring mysticism. This scale is based mainly on the concepts presented by William James. Still, it also incorporates elements of Underhill's practical vision, such as the active search for transformation, and aims to assess fundamental mystical experiences through a questionnaire composed of 32 items (Hood, Hill, & Spilka, 2018). Hood *et al.* (2001) identify three dimensions evaluated by the Mysticism Scale. The first is introverted mysticism, marked by the transcendence of time and space, ineffability, and an experience turned beyond the ego. The second is extroverted mysticism, defined by a sense of unity and a subjective quality. Finally, there is the interpretative dimension, which, according to Stace (1960), can be divided into noetic value, positive humor, and sacredness.

Hood (2005) incorporated a series of quasi-experimental research aimed at facilitating mystical experiences, aligning these investigations with his previous work on using entheogens. In this research, conditions were manipulated to intensify mystical experiences, and the results were evaluated according to the criteria for



mysticism defined by Stace (1960). Another researcher who explored the theme was Thalbourne (1999), who developed his method to measure mysticism. Their approaches converge, in part, with those of Hood (2005), especially in the way these experiences are measured (Thalbourne & Delin, 1999, p. 53). Thalbourne suggested that the mystical experience can be identified through a single factor that is also related to other phenomena, such as creativity and beliefs in the paranormal and psychopathological conditions, especially Bipolar Disorder (Hood, 2005).

Davis *et al.* (2024) conducted a comprehensive bibliometric study on the psychology of religion and spirituality (R/S), analyzing articles published in three important journals in the field: *Archive for the Psychology of Religion* (APR), *International Journal for the Psychology of Religion* (IJPR) and *Psychology of Religion and Spirituality* (PRS), between 1962 and 2022. The study sought to identify the main characteristics of the articles, citation count, and the use of open science practices. The results showed that 63% of the articles were empirical, with the majority using quantitative analytical methods. The analysis revealed that R/S studies are, on average, more robust in terms of statistical power than other areas of psychology, such as social, clinical, and sports psychology.

In addition, the study highlighted a recent increase in the use of open science practices such as pre-registration, open data, and open materials. However, open-access publishing is not yet widely adopted. Davis *et al.* (2024) emphasized the need for greater geographical, cultural, and methodological diversity in the field of R/S psychology, pointing out that these areas are well-positioned to make significant scientific and social contributions. These findings underline the continued importance of empirically and methodologically rigorous measurement of religious and spiritual experiences and the need for more open and inclusive research practices.

The study of the psychological characteristics of the mystical person reveals behavioral tendencies and personality traits common among those who live these experiences. Studies have shown that individuals predisposed to mysticism are more open to experience and show greater cognitive and emotional flexibility. According to empirical research, individuals who identify with such experiences often feel a deep connection to the whole and exhibit lasting changes in their values and behaviors, such



as increased compassion, altruism, and detachment from the ego (Paloutzian & Park, 2005).

These findings illustrate the profound impact that mystical experiences can have on an individual's religious and spiritual life and psychological and behavioral development. In this way, the psychology of the mystical person reveals common characteristics, such as greater openness to experience and emotional flexibility. According to research (Paloutzian & Park, 2005), individuals predisposed to mysticism often report a deep connection with the whole and exhibit transformations in their values and behaviors, manifesting greater compassion and detachment from the ego. These transformations are described by Paloutzian and Park (2005, p. 345) as "lasting behavioral changes associated with feelings of ego transcendence and connection with the whole".

MEASUREMENT OF MYSTICISM - THE FRANCIS-LOUDEN MYSTICAL ORIENTATION SCALE (MOS): ASSUMPTIONS AND FACTOR STRUCTURE

The *Francis-Louden Mystical Orientation Scale* (MOS) is an important psychometric tool developed to measure people's mystical orientation, based on a solid theoretical foundation that combines contributions from leading scholars in the psychology of religion and mysticism. Its construction is rooted in the theories of mysticism proposed by William James and F. C. Happold, two fundamental scholars whose works provided the basis for the empirical understanding of mystical experiences. MOS was created by psychologists Leslie J. Francis and Stephen Loudon, who sought to translate these theories into a reliable and measurable scale.

The history of the construction of MOS begins with the profound influence of William James and his four characteristics of the mystical experience. However, decades later, F. C. Happold, in his book *Mysticism: A Study and an Anthology* (1970), expanded on James's work by proposing seven main features of mystical experience. In addition to James's four dimensions, Happold introduced three new characteristics: consciousness of the oneness of everything, a sense of timelessness, and discovering one's true self. These additions were instrumental in expanding the understanding of the mystical experience, bringing about a complete view of mysticism, including a sense of cosmic unity, transcendence of time, and an encounter with the "true self."



Based on these theoretical contributions, Francis and Louden sought to create a tool to systematically measure mystical orientation. They developed the *Francis-Louden Mystical Orientation Scale* to operationalize Happold's seven characteristics. For each of these characteristics, they created three items, resulting in a total of 21 items that assess seven main characteristics of the mystical experience: ineffability, noesis, transiency, passivity, consciousness of the oneness of everything, sense of timelessness, and the true ego. Participants had to rate the importance of each experience to their faith using a 5-point scale (1 = low importance, 5 = high importance). These items were designed to capture the subjective depth and elusive character of mystical experiences, allowing individuals to report their perceptions and sensations clearly and empirically (Francis & Louden, 2000).

For example, the dimension of ineffability, derived from James, was captured by items that highlight the difficulty of expressing the mystical experience in words, such as "experiencing something I could not put into words".¹⁰ Noesis, another dimension of James, which refers to the revealing character of mystical experiences, was measured by items such as "feeling that one was surrounded by a presence" (James, 1902/1982). Happold's contributions were also directly integrated, such as in the measurement of the sense of timelessness with items such as "being aware only of timelessness and eternity" and in the discovery of the true self with items such as "feeling my everyday self being absorbed into the depths of being" (Happold, 1970).

Francis and Louden's work not only adapted these theories in practical ways but also validated MOS in different contexts (Francis, Littler, & Robbins, 2012; Francis, Robbins & Cargas, 2012; Francis, Ok & Robbins, 2017), showing that the scale has high internal consistency and can be applied to various religious and secular populations, as in Ross and Francis (2015) who, using the MOS and the *Francis Psychological Type Scales* (FPTS) with adolescents between 16 and 18 years of age from England and Wales, confirmed orientation indices Mysticism was higher for those who had an intuitive psychological type, characteristic of the theory of the process of perception by Jung (1971). Until that moment, studies on this had only been carried out with adults (Ross, 1992).

¹⁰ Our translations for this and the other items mentioned in the text.



The structure of the seven aspects embodied in the measurement of the mystical experience was organized and described below with their respective items. It is important to emphasize that the nomenclatures below are a free translation by the authors of this essay of the original contents that describe the experiences:

Ineffability: This factor emphasizes the private and incommunicable nature of the mystical experience, i.e., the impossibility of adequately reporting what has been experienced in words. The related items are: "Experiencing something that cannot be put into words," "Feeling moved by an indescribable power," and "Being more aware of what could be described."

Noesis: Related to the perception of a truth transcending the discursive intellect, this factor describes states of knowledge or revelation that bring meaning and importance. His items include "Feeling God in the beauty of nature," "Knowing a presence surrounded me," and "Listening to God speak to me."

Transiency: Refers to the brevity of mystical experiences, highlighting the possibility of repetition, but with a short duration. The items are: "Brief glimpse into the heart/core of things," "Transitory vision of that which transcends reality," and "Passing moments of divine revelation."

Passivity: This factor addresses the feeling of being controlled by a higher power and the undeserved nature of the experience, marked by deep meanings. The items are "Being seized by a feeling of wonder," "Being in a state of mystery outside my body," and "Being grasped by a power beyond one's control."

Consciousness of the oneness of everything: Describes the realization that existence is an oneness. The items of this factor include "Feeling at one with the universe," "Feeling at one with all living things," and "Realizing oneness in all things."

Sense of Timelessness: Emphasizes the timeless character of mystical experiences, which seem to transcend the conventional notion of time. Related items are "Losing Track of Time, Place, and Person," "Being Aware Only of Timelessness and Eternity," and "The Fusion of Past, Present, and Future."

True Ego: Refers to the deep connection with the inner self, addressing the soul or spirit. The items of this factor are "Being absorbed by the divine," "Losing my everyday self into a greater being," and "Feeling my everyday self absorbed in the depths of being."



The MOS construction and validation survey (Francis & Loudon, 2000) was conducted with 1,468 Roman Catholic priests who responded out of the 3,581 questionnaires sent by correspondence from England and Wales. Of these, 2% were under 30 years old, 13% in their 30s, 20% in their 40s, 25% in their 50s, 26% in their 60s, 12% in their 70s, and 2% in their 80s. In this study, in addition to the 21 items of the MOS, they answered a battery of 66 items related to different aspects of religious experience, both on a scale of 1 (not at all) to 5 (very much) points, guided by the question, in free translation, "how important are the following experiences for your faith"; and the Eysenck Personality Questionnaire (Eysenck, 1975), which provides the assessment of 3 personality factors, namely Extraversion, Neuroticism, Psychoticism, and a fourth scale of Social Lying/Desirability.

This pioneering study generated an alpha reliability coefficient of the instrument's internal consistency of 0.94 (Cronbach, 1951). When evaluating the specific items with the rest of the test, seeking to understand how they contribute to the total consistency of the test, a variance between 0.46 and 0.79 was found, demonstrating that it contributes adequately to the desired evaluation (Francis & Loudon, 2000).

Subsequently, Francis-Loudon (2004), aiming at research in which there is a need for a shorter instrument, created, based on the original instrument, the Short Index of Mystical Orientation (SIMO), a shorter index to measure mystical orientation. This instrument, derived from the MOS, presented a good index compared to the original instrument, with an alpha coefficient of 0.86 as a reliability coefficient, a value well accepted for a short scale, in which the minimum criterion would be 0.70 (Kline, 1993). It is composed of only 09 items, namely, in a free translation: "experiencing something that I cannot express in words",¹¹ "feeling God in the beauty of nature", "knowing that I was surrounded by a presence", "feeling in union with the universe", "being in a state of mystery outside my body", "feeling moved by an indescribable power", "being overwhelmed by a sense of wonder," "losing track of time, place, and person," and "listening to God speak to me." The correction coefficients of each item

¹¹ Our translations, for this and the other SIMO items cited in the text.



for the overall consistency of the test ranged from 0.40 to 0.66, in addition to the concurrent validity with the MOS being +0.97.

With this validation success, the Francis-Louden scale, complete and reduced, can insert itself in various contexts and study different populations.

EMPIRICAL STUDIES WITH THE FRANCIS-LOUDEN MYSTICAL ORIENTATION SCALE (MOS): MAIN PSYCHOMETRIC FINDINGS AND PSYCHOLOGICAL ASPECTS ASSOCIATED WITH MYSTICAL ORIENTATION

In Giordan, Francis, and Crea's (2018) study, "*The persistence of spiritual experience among churchgoing and non-churchgoing Italians: Sociological and psychological perspectives*," the MOS was adapted to the Italian context and applied to 1,155 participants. The results revealed that, despite the decrease in traditional religious practices, many Italians, practicing and non-practicing, maintain a significant openness to mystical experiences, suggesting a more personal and less institutionalized spirituality. The internal consistency of the scale, with an alpha coefficient of 0.89, and the correlation between the MOS score and factors such as gender and attendance at church or personal prayer reinforce the instrument's validity by capturing mystical dimensions among individuals of different profiles. This indicates a flexibility between spirituality and religiosity in Italy, where conventional religious practices are not exclusive to a deep spiritual experience.

In the Australian context, the study "*Religious experience and religious motivation among Catholic and mainstream Protestant churchgoers in Australia*" (Francis, Village & Powell, 2016) used an abbreviated version of the MOS to measure the mystical orientation between Catholics and Protestants. This study had seven items representative of the main mystical components, such as ineffability, noesis, and transcendence, allowing participants to evaluate the importance of each experience to their faith. The psychometric reliability of the scale was maintained, with an alpha coefficient of 0.92, and the results indicated that Catholics and Protestants differed slightly in MOS M scores, with Catholics having a marginally higher mystical orientation (mean of 20.3) compared to Protestants (mean of 19.2), a statistically significant difference ($p < 0.05$). This suggests that religious tradition can influence mystical experiences but that both groups widely value such experiences.



Similarly, the study by Francis *et al.* (2007) with participants in retreats at Ampleforth Abbey, England, which recorded an alpha coefficient of 0.94, reinforces the functionality and internal consistency of the MOS. Again, the correlation between mystical orientation and the intuitive perception of the participants highlights intuition as a facilitator for mystical experiences, sustaining the MOS as a specific and reliable instrument to measure these orientations. These studies demonstrate that MOS can capture the complexity of mystical orientation in different cultural and religious contexts, validating it as a versatile tool that reveals nuances of contemporary human spirituality

The study by Francis, Village, and Powell (2016) aimed to verify religious experience and religious motivation among traditional Catholics and Protestants who attend churches in Australia. Mystical orientation was evaluated by the abbreviated form of seven items of the MOS. In the abbreviation of the measure, a representative item of each of the seven components of mysticism that made up the instrument was selected: ineffability, noesis, Transiency, passivity, unity, timelessness, and true ego. The authors drew on two sets of theories developed within the psychology of religion (relating to religious experience and religious motivation) to test three six-item measures of religious orientation (intrinsic, extrinsic, and seeking) and to develop two seven-item measures of religious experience (mystical and charismatic) among Catholics (N = 626) and traditional Protestant churchgoers (N = 505). The data demonstrated satisfactory reliability of internal consistency for all five scales. The mean scores of the scales demonstrated higher levels of intrinsic religiosity among mainline Protestants and higher levels of extrinsic religiosity among Catholics; slight variation between the two groups in terms of religious orientation of seeking, mystical orientation, or charismatic orientation.

In another study, Francis, Littler, and Robbins (2012) investigated the relationship between mystical orientation and the process of perception as described in Carl Jung's theory of psychological types. Building on previous research and careful replication, the study sought to empirically validate Ross's thesis, which suggests that individual differences in mysticism are associated with perceptual preferences of sensation or intuition. The study was carried out with 232 male Anglican clergy who served as full-time parish priests in the Church in Wales. The age distribution of the



participants was diverse, covering different stages of adult life: 22 participants were under 40 years old, 43 were in their 40s, 109 were in their 50s, 56 were in their 60s, and 2 were in their 70s.

Two scales were used: (1) **Francis-Louden Mystical Orientation Scale (MOS)**, a scale that measures seven main characteristics of mysticism: ineffability (the experience that cannot be described in words), noesis (deep insights into truth), Transiency (the temporary character of mystical experiences), passivity (feeling controlled by a higher force), consciousness of the unity of all things (sense that everything is connected), a sense of timelessness (the realization that time does not exist) and the "true ego" (a connection with the deepest, most authentic self); (2) **Francis Psychological Type Scales (FPTS)**, a 40-item forced-choice instrument that assesses four main dimensions of psychological types: orientation (introversion or extraversion), perceptual process (sensation or intuition), judgment process (thought or feeling), and attitude toward the external world (judgment or perception).

The questionnaires were sent to the 593 full-time Anglican parish priests working in Wales, resulting in 391 responses (66% response rate). However, for the analysis, only data from the 232 participants who completed all the instruments were used, ensuring the statistical integrity of the study.

The results showed that clergy with a preference for the intuitive type had significantly higher scores on mystical orientation than those of the sensation type. Furthermore, these results reinforce Ross's central hypothesis, highlighting that the perceptual process (sensation and intuition) plays a crucial role in modulating religious experience and expressing mystical beliefs. These findings add theoretical robustness to the field, linking spirituality to personality differences based on Jung's model.

The study by Francis, Littler, and Robbins (2012) brought important contributions to the empirical psychology of religion based on Carl Jung's theory of psychological types and the application of the Mystical Orientation Scale (MOS). One of the main conclusions was the validation of the MOS as a highly reliable instrument with robust internal consistency and stable results in different research contexts. Such characteristics indicate that MOS is particularly suitable for measuring complex constructs such as mysticism in various populations, offering theoretical and practical insights. In addition, the study reinforced the relevance of Jung's theory of



psychological types, demonstrating that this theoretical framework is helpful, insightful, and empirically testable for understanding individual differences in religious experience, the expression of spirituality, and religious beliefs. The results validated Ross's thesis and demonstrated how the intuitive type is more associated with the propensity for mystical experiences. In contrast, the sensation type showed less affinity with these phenomena.

These findings suggest that integrating personality psychology and religious studies can significantly broaden the understanding of human spiritual dynamics, providing a methodological framework for deeper and broader analyses. In this way, the study contributed significantly to expanding the knowledge of individual differences in spirituality and religion while validating reliable instruments for future investigations. He demonstrated how psychological factors shape spirituality and religiosity, reinforcing the applicability of empirical psychology in the study of religious and spiritual dynamics. In addition, the results shed light on the impact of differences in perception on the formation of religious beliefs and practices, suggesting future avenues for interdisciplinary research that integrate psychology, theology, and anthropology.

In two studies, Francis and collaborators investigate two questions about the level and nature of mystical experience (Francis & Robbins, 2014; Francis *et al.*, 2015). The first question concerns the extent to which mystical experience is recognized and reported by young people who grow up without commitment to an established religious tradition compared to young Christians and young Muslims. The second question concerns the extent to which mystical experience can be associated with psychopathology among different groups of young people: those who grow up as Christians, those who grow up as Muslims, and those who grow up as religiously unaffiliated.

In the first study, Francis and Robbins (2014) obtained three samples of adolescents aged 14 to 18 years: 203 Muslims, 477 Christians, and 378 young people with no religious affiliation in England and Wales, who answered scales: Eysenck Personality Questionnaire Revised (EPQR-A: Francis, Brown & Philipchalk, 1992) of psychoticism and neuroticism within Eysenck's dimensional model of personality. The mystical experience was evaluated by the three-item Brief Scale proposed by Francis,



defining the following phenomena: feeling oneness with oneself and all things, feeling everything in the world being part of the same whole, and feeling myself merging into something greater. The scale obtained an alpha of 0.61. The data showed a lower level of mystical experience among young people without religious affiliation. However, such experiences were reported by between a quarter and a third of this group. They found no association between the reported mystical experience and psychopathology among Christians, Muslims, or those with no religious affiliation.

Francis et al. (2015) conducted a study in the context of Germany to expand the cultural context. Thus, this study was also designed to employ Francis' brief measure of mystical experience alongside the Eysenckian dimensional model of personality to test the two hypotheses reported earlier. Students between the ages of 15 and 19 participated in the study, including 578 Christians, 311 Muslims, and 248 religious non-affiliates. The study's brief scale of mystical experience in the German version obtained a lower internal consistency index, alpha of 0.49. The results show only slightly lower levels of mystical experience among young people with no religious affiliation and found no evidence of connecting mystical experience with psychopathology among any of the three groups. This finding is consistent with the previous study and corroborates the broader literature.

The MOS has also been adapted for the Turkish population (Francis, Ok, Robbins, 2017). In evaluating this adaptation, they found a good reliability index, similar to that found in the original scale, with an internal consistency of Cronbach's alpha of 0.88. They also reported that only one item correlated with the sum of the other items, which was less than 0.3 (item: experience something I could not put into words). They presented the data on the discrimination of the 21 items of the scale, which were good and ranged from 16% endorsement (item: having transitory visions of the transcendental) to 72% (item: feeling the meaning in the beauty of nature). The Turkish MOS version has good psychometric properties, reinforcing the important role of the scale in cross-cultural research and the understanding of the construct.

In the study under review, Francis, Ok, and Robbins (2017) evaluated the association between mystical experience (MOS) and psychological health, using the three-dimensional Eysenckian personality model, among 329 Turkish university students. They conducted the study following eight studies investigating mysticism as



measured by other scales and the Eysenck Personality Questionnaire. The authors cite Caird (1987), who proposed to test two opposing hypotheses, one that mystical experiences are essentially introverted, with neurotic and psychotic patients especially tempted to seek relief in this experience. On the other hand, identifying mystical experiences with peak experiences, more healthy characteristics than neuroses or psychoses. However, empirical investigations have not supported any of these hypotheses. The results of the study by Francis, Ok, and Robbins (2017) partially corroborate previous studies, as they found no association between mystical orientation and psychoticism scores and a small positive association between mystical orientation scores and neuroticism after controlling for sex. This finding suggests that there may be a small inverse association between mystical experience and psychological health among students in Turkey.

Many studies of correlations and predictors of religiosity focus on the connection with subjective well-being. One such study, Yüksel (2020) assessed the meaning and purpose of life and other constructs by comparing them between Sufis and non-Sufis in a correlational study. Two hundred sixty-four people (131 are Sufis and 133 are non-Sufis) aged between 18 and 65 years, all of Turkey, answered The religious Attitude Scale, Belief Tension Scale, to measure religious attitudes and contradictions, Abbreviated Form of Purpose of Meaning and Scale of Life Purpose, to measure levels of purpose and meaning of life. To measure happiness and optimism, the Happiness Scale, Pessimism Scale, and the MOS (Francis, Ok, and Robbins, 2017). Statistically significant differences were found in the levels of meaning, religiosity, mental health (happiness and optimism), and mystical experience of Sufis and non-Sufis. This shows that the level of meaning, purpose, religiosity, happiness, optimism, and mystical experience of Sufis is significantly higher than that of non-Sufis.

Užarević (2022) aimed to predict religiosity and its components (religious beliefs, ritual religiosity, and the consequences of religiosity on social behavior) based on mystical experience, attitudes toward science, imagination, empathy, and involvement in social justice. One hundred forty-nine university students (79 women) with a mean age of 22.46 years ($SD = 2.34$), answered an online questionnaire that contained MOS (Francis & Loudon 2000) adapted to the Croatian context and obtained a Cronbach alpha of 0.94), Instrument to research attitudes about science,



Emotional empathy scale and Imagination scale, Self-efficacy for social justice subscale, Questionnaire on religiosity and socioeconomic issues and demographic characteristics.

Užarević (2022) found a significant positive correlation between mystical experience, general religiosity, and all its components. It also found a significant negative correlation between attitudes toward science and all religiosity variables. Imagination and involvement in social justice proved to be insignificant correlates of religiosity and its components. At the same time, empathy is significantly associated positively with total religiosity, religious beliefs, and ritual religiosity and insignificantly with the consequences of religiosity on social behavior. Based on the set of predictor variables (mystical experience, attitudes towards science, empathy, and involvement in social justice), it is possible to explain 56% of the variance of total religiosity, 59% of the variance of religious beliefs, 48% of the variance of ritual religiosity and 41% of the variance of the consequences of religiosity on social behavior.

Finally, a cross-sectional examination of the findings of the reported research builds a very favorable perception of the use of the instrument in question. The MOS for suitable psychometric performance has been obtained in all studies in different contexts. Flexibility of use in triangulations to other constructs and research problems, systematically emerging a corpus of findings that, on the one hand, broadens confidence in the psychometric excellence of the instrument. On the other hand, it precipitates a nascent vision that the mystical experience is systematically associated with functional and adaptive arrangements of the personality, as well as with the health and well-being dimensions of individual subjectivity.

FINAL CONSIDERATIONS

The present study had a theoretical design and a brief literature review with a psychological investigation of the mystical experience. It elucidates its definition and the historical aspects that permeate this theme, thus passing through the theorization of several psychological approaches. After that, we sought to present and explain the *Mystical Orientation Scale* (MOS) created by Leslie J. Francis and Stephen Loudon, the object of study of the present work, unraveling its assumptions and psychometric



organization, as well as exposing a current panorama of the empirical analysis of this instrument to present the construct within its possibilities of investigation.

The mystical experience has been of interest to the psychology of religion since the first investigations of Williams James (1902/1982). Theoretical investigations, the evolution of qualitative data, and the generation of quantitative data have promoted contributions to the study of mystical experience. In this scenario, the *Mystical Orientation Scale* (MOS) is fundamental in generating new data in different sociocultural and religious contexts and the development of the area.

The first conclusion concerns the adequacy and functionality of MOS (Francis & Loudon 2000). It has been widely used to investigate mystical experiences in diverse cultural contexts. It demonstrates consistency across different countries beyond the culture in which the MOS was elaborated, namely England and Wales, as well as in Australian, Italian, German, Turkish, and Croatian population samples. It is also notorious for the suitability for different audiences to whom the scale is intended, in terms of age group, from adolescents to the elderly, clergy (Anglicans and Christians) and lay people, people affiliated with the religion (Christians, Anglicans, Muslims, and Sufis) and without religious affiliation. The diversity of the samples from MOS research is evidence of validity, which concerns the definition and measurement of mystical experience as measured by it and is appropriate for comparative research between diverse populations.

Regarding the psychometric properties of the MOS, Francis, and collaborators had the zeal to test and present some indices that point to the adequacy of the scale for the different samples used. The MOS was presented and used in three versions. The original one, with a structure consisting of seven phenomenological dimensions and 21 items, obtained a meritorious internal consistency coefficient (alpha of 0.94) in the first validation study, following this value with slight variation in the other studies. The *Short Index of Mystical Orientation* (SIMO), is a reduced scale of MOS with nine items. This version also had a good internal consistency coefficient (alpha of 0.86). Francis also used the measure of mystical experience on a brief three-item scale, which obtained less robust internal consistency indices, with alphas of 0.61 and 0.49. Since Cronbach's alpha deals with the cohesion of the items, dependent on the number of items, the version with 21 items is more robust, while the version with three obtained



less consistent indexes. Based on this criterion only, we do not recommend the short version of three items. Using the original scale (MOS) and the reduced version of 9 items (SIMO) is highly recommended in future research.

However, as exposed, its dissemination and adaptability are still predominantly restricted to European and English-speaking countries, and no studies are found, such as in Latin American countries. No reference was found to a validation study of the MOS for Brazilian Portuguese speakers. No reference was found to a validation study of the MOS for Brazilian Portuguese speakers. Therefore, future studies must make MOS available to contexts and cultures not yet explored to validate its cross-cultural applicability in distinct regions. Psychometric analyses are also needed based on their adaptability to different languages and populations to verify their consistency and effectiveness, just like the original scale. Not forgetting to work with other dimensions, such as well-being, mental health, and religiosity, and aspects of human cognition, such as self-awareness, cognitive styles, and anomalous experiences, anomalous cognition, etc., to observe the impact of mystical experiences and the association in these different parameters of human life. Thus, developing new versions of MOS, which capture the mystical experience in non-Western populations or contemporary contexts, can contribute significantly to advancing the psychology of religion and mysticism.

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