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The Social Effects of Psychism: Spiritual Experience and the Construction of Privatized Religion*

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The Social Effects of Psychism: Spiritual Experience and the Construction of Privatized Religion

What is the relationship between spiritual experiences and privatized religion? This study defines spiritual experiences in terms of “psychism,” or psychic intrusions in the stream of consciousness that are not perceived by the actor as originating within the “self.” Intrusions interpreted as psychism are regarded by the actor as having the same facticity as empirical experience and are regarded as “proof” of an esoteric belief system. Psychism originated beliefs are therefore resistant to refutation or change, and support spiritual autonomy. Psychism theory is tested using 1988 GSS data on religious beliefs, where psychism is measured using GSS questions on “paranormal” experiences. Nonrecursive models demonstrate that psychism is a cause (not effect), has a negative effect on conformist beliefs and communal practices and a positive effect on moral autonomy and private religious practices, and that it has a nuanced effect on beliefs regarding God.

INTRODUCTION

Paranormal and spiritual experiences are one of the perennial mysteries of human behavior: Why do rational people embrace supernatural explanations? How do paranormal and religious experiences relate to each other? Are they the result of religious conformity or a cause for moral autonomy? To get some data on the phenomenon, the General Social Survey included a series of questions in the 1980s which asked for the frequency of instances of telepathy, clairvoyance, communication with the dead, and mystical experiences. The results showed a remarkably high incidence across the population: more than 75 percent of the population report having at least one psychism experience, and almost 15 percent experience at least one of the four types often.¹ However, a century after James (1994) called for a scientific study of religious experience, science has yet to develop a clear understanding of the phenomenon. We have a variety of measures – the Greeley and McCready (1974) scale used in the GSS, the Spiritual Experience Questionnaire (Jackson, 1997), the Index of Core Spiritual Experiences (Kass et al, 1991), the Mysticism Scale (Hood, 1975), and the Spiritual Experience Index (Genia, 1991) – but none have a clear theoretical foundation which explains it and its place in a causal chain.

This study proposes a unified conception of “psychism” in which paranormal and spiritual experiences are understood as “mind glitches.” A person perceives psychism as intrusions of psychic objects within the stream of consciousness – though here I use the more standard psychological definition of “psychic” as relating to the human mind or psyche (e.g., thoughts, emotions, sensory input, or impulses). In this conception, people externalize or interpret intruded

¹ This result is based on creating a measure that reflects the highest level of any of the four items.

objects as originating in or operating through a spirit realm, and then interpret them as implying or conveying beliefs which, because of their perceived origin, they privilege over socially validated beliefs. One consequence is that when people confront resistance from social networks over psychism-constructed beliefs, they maintain their own interpretations at the expense of these networks.

I test this theory using GSS data in nonrecursive models that simultaneously estimate both paths of influence between psychism and religious beliefs and practices. The results demonstrate that, contrary to popular conception, spiritual experiences are not the consequence of religious identity or conformity, but instead lead to privatized religion.

SCIENTIFIC EXPLANATIONS OF ALTERED STATES

Science has confronted an onslaught of claims of paranormal and spiritual experiences since the last decades of the nineteenth century. Beleaguered churches, the Spiritualist movement, esoteric organizations, and travelers from colonized lands generated so many claims of divination, spirit possession or communication, and extrasensory perception that many European and American intellectuals created the Society for Psychical Research to investigate them (see Webb, 1974; Inglis, 1977; and Aveni, 1996), though it had mixed success. Responses from the scientific establishment can be seen in the classical writings of psychology and sociology. James (1994:258) described spiritual experiences in terms of “‘uprushes’ into ordinary consciousness of energies originating in the subliminal parts of the mind”, but ascribed the most extreme manifestations to “nervous instability” (1994:276). Freud dismissed spiritual experiences (along with religion itself) as manifestations of the “omnipotence of thought” reported by “obsessional neurotics” (1950:107; see also 1961a:35), as “projections of ...emotional impulses” (1950:115), and as pathologies involving the “ego boundary” (1961b:13). Durkheim (1965:464) alluded to

spiritual experiences as a means by which practitioners “set free energies superior to those which we ordinarily have at our command,” resulting in “experimental proof of ... beliefs.”

Subsequent psychological and sociological explanations have developed along with their respective disciplines. Malony and Lovekin’s (1985) study of Pentecostals speaking in tongues (glossolalia) offers an extensive review of psychological theories that includes hysteria, suggestibility or susceptibility to influence from leaders, “psychic contagion,” and conformity. To this, recent psychological research has added the influence of religious roles on the perceptual cycle (Wikstrom, 1987; Van Der Lans, 1987), the emergence of repressed superego (Edwards and Lowis, 2001), psychophysiological process such as endorphin responses (Prince, 1982), responses to rhythms (Neher, 1962; Rouget, 1985), and various versions of temporal lobe discharges (Persinger, 1983, 1993; Winkelman, 1986; Persinger, et. al. 1994; Philipchalk and Mueller, 2000). The most recent additions focus on schizotypal personality disorder, a boundary condition of schizophrenia that includes “magical thinking” and “unusual perceptual experiences.” This literature (see the edited collection by Raine, Lencz, and Mednick, 1995; and Claridge, 1997) generally characterizes these experiences in terms analogous to hardware or software glitches in the brain. However, while these theories at least offer a conceptualization of the experience, they are subject to Durkheim’s criticism that they presume that the phenomenon in question begins with “psychical states” independently of social contexts (1982:131), and “whose expression alone, because it is external, assumes social form” (1982:205).

Sociological explanations, by contrast, focus on how social influences generate claims of paranormal and spiritual experiences. These include social stress from conformity or deprivation from devalued social position (Glock and Stark, 1965; Greeley, 1974; Stark and Bainbridge, 1980 and 1987; Wuthnow, 1981), reactions to social change (Tiryakian, 1974; Webb, 1974; Ben-

Yahuda, 1985), or a “breakdown of modernization” (Eisenstadt, 1970). Many theorists assume substitution theory religious and secular paranormal experiences are related as functional equivalents and substitutes for each other (for a review see Orenstein, 2002). More recent studies have disconfirmed deprivation theory (Fox, 1992), cast doubt on the “substitution” theory for religious and paranormal beliefs (Orenstein, 2002; McKinnon, 2003), abandoned characterizations of claimants as “crazy or crooked” (Stark, 1999), and advanced a view of spiritual experiences as a product of specialized discourse and interpretation (Jorgensen, 1984; Luhmann, 1989), as manifestations of creative genius (Stark, 1999), or as a “populist” interpretation of experiences using “commonsense,” comforting, or even entertaining explanations (Goode, 2000).

These explanations can best be critiqued by deconstructing an “experience” into its components of (1) socialization, (2) awareness, (3) interpretation, and (4) response (see Laubach, 2004). While psychological models overemphasize how nonempirical perceptions emerge into awareness, sociological models ignore that to focus on socialization, interpretation, and response, and ultimately lose the distinction between having and reporting an experience. In addition, these models tend to view spiritual experiences as outcomes, with its only predicted effects as intensifying evangelism (Poloma and Pendleton, 1989), improving mental or physical health (Kass, et al, 1991; Lindgren and Coursey, 1995; Jackson, 1997; Fallot, 2001), and reinforcing the beliefs and commitment to the organization that created them (Howell, 1997; Tumminia, 2002). This last effect is widely assumed but not tested across the broadest spectrum of society.

A THEORY OF PSYCHISM

The proposed reconceptualization unifies all components of the “experience” and suggests very different social consequences. It was developed from an ethnophenomenological study of

Neopagan possession trance in which participants reconstructed a moment-by-moment description of their perceptions during the experience (Laubach, 2004). Extrapolating from those descriptions, the underlying phenomenon of paranormal and spiritual experiences is defined as “psychism”: *perceptions of psychic intrusions into the stream of consciousness that are interpreted by the actor as not originating within the self’s normal information channels*. These “intrusions” can be seen as examples of Schutz’s (1973:228) discussion of a break in the *epoché of the natural attitude* by an event which offers a “special motivation, such as the irruption of a ‘strange’ experience not subsumable under the stock of knowledge at hand or inconsistent with it, ... [that makes] us revise our former beliefs.”

Psychism theory proposes that psychic intrusions are relatively normal occurrences (e.g., déjà vu, hearing your name called when nobody is around, “seeing things”), but most are ignored because the requirements for living in modern rationalized society puts constraints on people’s attention that these intrusions must be ignored. Psychic intrusions “become” psychism when a person interprets them as originating externally, thus invoking some paranormal realm or process. This interpretation differentiates between intrusion types, as can be seen in Fox’s (1992) analysis of GSS data where déjà vu did not factor together with the “paranormal experiences.”

Defining spiritual or paranormal experiences at the level of the stream of consciousness assumes that people give meaningful interpretations to all psychic objects that emerge into attention using elements of the person’s culture (see Schutz, 1967). However, as Tiryakian (1974:264) noted, western societies have competing subcultures: an exoteric subculture based in empiricism that offers the “cognitive and evaluative orientations publicly recognized and legitimated in the network of social institutions,” and an esoteric subculture based in “religiophilosophical belief systems” that asserts that “the familiar, everyday world is contingent

on the operations of a knowable but hidden reality, one not accessible to the senses” (1974:3).

While a psychic object not originating from sensory input, cognitive, or affective processes might not be satisfactorily interpreted using exoteric culture, the ubiquity of esoteric or occult subculture makes it likely that some interpretation will be available, regardless of the person’s beliefs prior to the experience. Furthermore, because these intrusions emerge into the stream of consciousness in the same way as any other psychic object, psychism theory proposes that they are *initially* perceived as having the same “reality value” as empirically derived objects.²

However, their *final* determination as “real” is a decision made by the perceiver based on identity commitments – i.e., the person’s relative commitments to social networks that hold exoteric vs. esoteric beliefs (see Stryker, 1987:90). Ultimately, people use the experience to justify adopting a new belief system if the intrusions are intense enough, the interpretations are plausible enough, and the identity commitments are either weak enough to be abandoned or are strong enough to survive a change.

Once a person interprets intrusions to be communication from “higher” spiritual powers, a new identity commitment is established that supercedes weaker commitments to empirical-world social relations, and the beliefs derived from intrusions take on a privileged status. As discrepancies develop between the psychism-originated beliefs and beliefs held by the person’s social networks, he or she is more likely to maintain the privileged beliefs, creating tensions that require increasingly greater flexibility from other members of the network. The consequence for religious networks, which are generally based on the maintenance of relatively fixed beliefs, is

² Durkheim (1965:465) acknowledged this similarity when he noted that “religious beliefs rest on a specific experience whose demonstrative value is... not one bit inferior from that of scientific experiments, though different from them.”

that people who experience high levels of psychism should be more likely to affirm their autonomy than to conform to the beliefs held by the network. Ultimately, because moral autonomy is not compatible with commitment to religious organizations, people who experience high levels of psychism should also have lower levels of participation in communal religious practices. The ultimate result is that they develop their own privatized religion.

If psychism has an adverse effect on conformity, we might conclude that religions should be reluctant to endorse practices that use it. However, Howell (1997) noted that religions influence the experience and the resulting beliefs, making psychism an excellent commitment tool. While this influence was apparent in the new religious movement that Howell studied, it should be clearly identifiable in the pervasive commitment-oriented practices of churches that practice glossolalia and other psychism-based gifts of the spirit (see Malony and Lovekin, 1985; Poloma and Pendleton, 1989). Conformist practices should therefore be seen as a means of keeping the effects of psychism working for the sponsoring religion instead of promoting heresy. For this reason, conformity should be found together with psychism-based practices in religions, but the causal influence is easily misinterpreted by analysts, especially if the population being observed is only experiencing psychism in religiously approved conditions. The real effects should only be apparent if the population being studied is broad enough to include unsponsored experiences and if the effects of conformity-enforcing organizations are statistically controlled.

Competing Theories

Psychism theory's consequences are very different from those predicted by the conventional conformity-based theory of spiritual experiences and substitution theory (see Orenstein, 2002) that paranormal beliefs are substitutes religious beliefs. This study uses these differences to develop a series of hypotheses to test all three. Each theory addresses the relationship between

spiritual experiences and six specific target religious beliefs and practices: (1) religious identity, (2) social interaction with God, (3) religious conformity, (4) communal religious practices, (5) moral autonomy, and (6) private religious practices. In the section below, I outline each of three theories and provide hypotheses consistent with each theory's predictions.

A. Conformity Theory. Much of conventional theory about religious experience draws implicitly on the power of social conformity to elicit false claims (Sherif, 1935; Asch, 1951), to engage in behaviors not acceptable to the normal self (Milgram, 1963 & 1964; Haney et al., 1973), and to ignore disconfirming beliefs (Festinger et al, 1956). Conformity theory would predict a reciprocal relationship between spiritual experience and religious beliefs in that spiritual experiences are seen as both the result of strong religious identities (see Wikstrom, 1987; Van Der Lans, 1987) and as evidence by the believer to reinforce those beliefs. This relationship should hold both for beliefs that define religious identity and beliefs that suggest a personal relationship or interaction with God. Next, greater acceptance of beliefs that reflect conformity should result in higher frequencies of spiritual experiences. Similarly, since conformity over an extended period reflects a high level of commitment to a social network, conformity theory would predict that higher participation in communal practices should result in greater frequencies of spiritual experiences. Reciprocally, conformity theory predicts that spiritual experiences in turn reinforce conformist beliefs and practices. On the other hand, beliefs in moral autonomy should undermine the conformity necessary to support nonempirical claims, and therefore should result in lower frequencies of spiritual experiences. Reciprocally, by reinforcing conformity, spiritual experiences should undermine moral autonomy. Finally, conformity theory would predict that private practices reflect an internalization of communal practices and would have the same effect mutually reinforcing relationship with spiritual experiences.

These predictions can be conveyed as hypotheses that specify the following relationships between the six target beliefs and practices and the occurrence of psychism:

Hypothesis 1a: Net of other social influences, intensified beliefs that reflect religious identity will result in higher frequencies of psychism. Reciprocally, higher frequencies of psychism will result in intensified beliefs that reflect religious identity.

Hypothesis 2a: Net of other social influences, intensified beliefs indicating a social interaction with God will result in higher frequencies of psychism. Reciprocally, higher frequencies of psychism will result in intensified beliefs indicating a social interaction with God.

Hypothesis 3a: Net of other social influences, greater acceptance of beliefs that reflect conformity will result in higher frequencies of psychism. Reciprocally, higher frequencies of psychism will result in greater acceptance of beliefs that reflect conformity.

Hypothesis 4a: Net of other social influences, higher participation in communal practices will result in higher frequencies of psychism. Reciprocally, higher frequencies of psychism will result in higher participation in communal practices.

Hypothesis 5a: Net of other social influences, greater acceptance of beliefs that reflect moral autonomy will result in lower frequencies of psychism. Reciprocally, higher frequencies of psychism will result in lower acceptance of beliefs that reflect moral autonomy.

Hypothesis 6a: Net of other social influences, higher rates of engagement in religious practices that are conducted privately will result in higher frequencies of psychism. Reciprocally, higher frequencies of psychism will result in higher rates of engagement in religious practices that are conducted privately.

B. Substitution Theory. Substitution theory asserts that “the paranormal beliefs have become a substitute for (or a functional alternative to) mainstream religion” (Orenstein, 2002:309), predicting that the presence of religious beliefs and practices will result in the absence of paranormal beliefs. Orenstein tested this by regressing paranormal beliefs on religious beliefs and attendance and concluded that while “some amount of religious belief is a necessary condition for paranormal belief, ...something specific about religious attendance or participation reduces belief in the paranormal.” These conclusions are retested here, using different measures of religious beliefs and practices, claims of paranormal experience (psychism) instead of just belief in the paranormal, and models that test instead of assert the direction of influence. The

following hypotheses are essentially the opposite of conformity theory, except that substitution theory offers no prediction for the effect of moral autonomy on psychism.

Hypothesis 1b: Net of other social influences, intensified beliefs that reflect religious identity will result in lower frequencies of psychism.

Hypothesis 2b: Net of other social influences, intensified beliefs indicating a social interaction with God will result in lower frequencies of psychism.

Hypothesis 3b: Net of other social influences, greater acceptance of beliefs that reflect conformity will result in lower frequencies of psychism..

Hypothesis 4b: Net of other social influences, higher participation in communal practices will result in lower frequencies of psychism.

Hypothesis 5b: no prediction of the relationship between moral autonomy and psychism

Hypothesis 6b: Net of other social influences, higher rates of engagement in religious practices that are conducted privately will result in lower frequencies of psychism.

C. Psychism Theory. The theory of psychism developed in this paper maintains that while a psychism experience can be interpreted in religious terms, a strong religious identity would not necessarily promote nor inhibit an interpretation of psychic intrusions as external – i.e., psychism. In addition, a social statement such as a religious identity (i.e., faith) is more dependent on socialization and community than a personal experience such as psychism, regardless of psychism's inherently social interpretation. Psychism theory therefore predicts that there will be no effects between psychism and religious identity beliefs. On the other hand, beliefs that reflect an interaction or personal relationship with God are more complex and emerge from repeated experiences which evoke the reflexivity that characterizes an interaction with other (e.g. Mead, 1967; Stryker, 1980). Psychism theory therefore predicts that psychism intensifies such beliefs. Also, as discussed earlier, psychism theory predicts that psychism reduces conformist beliefs and communal practices, and increases moral autonomy. Furthermore, psychism theory predicts that psychism encourages religious practices that are consistent with

what I term “privatized,” that is practices that can be conducted without concern for conforming to someone else’s interpretations of the experience. In hypothesis form:

Hypothesis 1c: Psychism will have no effect on beliefs that reflect religious identity .

Hypothesis 2c: Net of other social influences, higher reported frequencies of psychism will result in intensified beliefs indicating a social interaction with God.

Hypothesis 3c: Net of other social influences, higher frequencies of psychism will result in rejection of beliefs that reflect conformity.

Hypothesis 4c: Net of other social influences, higher frequencies of psychism will result in lower levels of participation in communal practices.

Hypothesis 5c: Net of other social influences, higher frequencies of psychism will result in greater acceptance of beliefs that reflect moral autonomy.

Hypothesis 6c: Net of other social influences, higher frequencies of psychism will result in higher rates of engagement in religious practices that are conducted privately.

The competing hypotheses of conformity theory, substitution theory, and psychism theory are summarized in Table 1. The next section attempts to adjudicate the differences among these three competing explanations.

TABLE 1 ABOUT HERE

METHODS AND DATA

The data for this study are drawn from the 1988 General Social Survey (GSS), a large national survey of American noninstitutionalized adults that has been conducted since 1972. Details for all variables are used in the analysis are shown in Appendix A.

Table 2 shows distributions for the four questions ESP, VISIONS, SPIRITS, and GRACE used in the psychism scale. These questions, asked by the GSS in 1984, 1988, and 1989 were originally developed by Greeley and McCready (1974) to measure mysticism. These were asked along with DEJAVU, and all five can be recognized as psychic intrusions in the stream of

consciousness. However, the first four meet the definition of psychism because they are interpreted as originating externally, with implications that contradict the exoteric belief system – i.e. something more than the mind “glitch” that is the popular interpretation of déjà vu. Fox (1992) empirically confirmed this distinction when he was able to fit the data to a model with a single factor (which he titled “paranormal experience”) underlying the first four questions only after he excluded déjà vu.

TABLE 2 ABOUT HERE

Panel A of Table 2 reports frequencies over the three years of data collection for the four psychism questions. However, since each form of psychism represented in the questions has the same implication for undermining the exoteric belief system and privileging psychism-originated beliefs, Panel B offers an alternative format, reporting the highest frequencies a person would report for any of the four items. It shows that overall, more than three-quarters (75.5 percent) of the population report having at least one psychism experience, and almost 15 percent experience at least one of the four types often.

This study extends Fox (1992) in several respects. First, where Fox used a subset of the 1984 survey, this study uses data from the 1988 survey which includes a module on religious beliefs and practices. Secondly, this study avoids the large N problem Fox faced with his measurement model by using a composite scale for the psychism factor instead of a measurement model.

FIGURE 1 ABOUT HERE

The third and most important difference is that this study uses a nonrecursive model to simultaneously estimate effects for both sides of the loop between psychism and the target belief or practice. Figure 1 depicts this model, with the term “target” representing the belief or practice being tested. Nonrecursive models require that instrumental variables be identified for both

dependent variables in the loop, with the criteria that the instruments are strongly correlated with one dependent variable in the loop and have no theorized effect on the other (see Heise, 1975:160). The instrument used in this study for psychism is *déjà vu*, which is correlated with psychism as a type of intrusion but is not correlated with religious beliefs or practices because it is not interpreted as having religious meaning. The instrument for target religious beliefs and practices is orthodoxy, as measured by Biblical literalism (see Hunter, 1991), which itself should not affect psychism. Readers who are interested in a fuller discussion of the details of the nonrecursive modeling procedures should see Appendix B.

Results

The following section summarizes the findings regarding the nonrecursive relationship between psychism and the six target beliefs and practices. The key results of this analysis are summarized in Table 3, which shows only the standardized coefficients for the two paths that are relevant to the hypotheses being tested: $\beta_{\psi \rightarrow t}$ for the effect of psychism on the target, and $\beta_{t \rightarrow \psi}$ for the effect of the target on psychism. Readers who are interested in a discussion of the full analysis are referred to Appendix C.

TABLE 3 ABOUT HERE

Religious identity beliefs. Neither path between *psychism* and the *religious identity belief* scale reaches statistical significance at the $p < .05$ level for a one tailed test, so the data offer no support for either hypotheses 1a or 1b, derived respectively from conformity and substitution theories, but does support 1c, derived from psychism theory.

Social Interaction with God. Two questions that measure the respondent's perception of a social interaction with God are *closeness to God* and *anger at God*. While the use of the first question is obvious, the phrasing of the second question reflects a more personal relationship than if it

were phrased in terms of an impersonal satisfaction or happiness with God. Again, neither path from *closeness* or *anger* to *psychism* was significant indicating no support for conformity theory's hypothesis 2a and substitution theory's hypothesis 2b. However, as predicted by psychism and partially by conformity theories, higher frequencies of psychism increase the perceived intensity of the belief, both in *closeness* ($\beta_{\psi \rightarrow t} = .23$) and *anger* ($\beta_{\psi \rightarrow t} = .16$), offering strong support for hypothesis 2c. In addition, psychism was the second strongest determinant for both beliefs, only slightly behind orthodoxy ($\gamma_{\text{orthodoxy} \rightarrow \text{closeness}} = .25$) for closeness to God and equal in magnitude to age ($\gamma_{\text{age} \rightarrow \text{closeness}} = -.16$) for being angry with God. (See Appendix C).

Religious Conformity Beliefs. The results support psychism theory's hypothesis 3c that psychism reduces conformity ($\beta_{\psi \rightarrow t} = -.26$). They disconfirm conformity theory's hypothesis 3a that spiritual experiences increase conformity and offer no support for conformity theory's prediction that conformity causes spiritual experiences or for substitution theory's prediction in hypothesis 3b that paranormal experiences substitute for religious conformity ($\beta_{t \rightarrow \psi} = -.03$). Once again, psychism has the strongest effect on conformity except for orthodoxy ($\gamma_{\text{orthodoxy} \rightarrow \text{conformity}} = .35$). One final point is that the correlation between error terms for psychism and conformity is significant ($\sigma_{\delta(\psi) - \delta(t)} = .38$), indicating that some influence outside the model is affecting both.

Communal Religious Practices. Again, the results support psychism theory's hypothesis 4c that psychism reduces communal practices ($\beta_{\psi \rightarrow t} = -.29$). They also disconfirm conformity theory's hypothesis 4a that psychism reinforces communal practices and offer no support for its prediction that participation in communal practices increase the frequency of spiritual experiences or for substitution theory's prediction in hypothesis 4b that paranormal experiences substitute for communal religious practices ($\beta_{t \rightarrow \psi} = -.03$). In this model, increasing levels of psychism are the strongest determinant against communal religious practices, even more so than

orthodoxy ($\gamma_{\text{orthodoxy} \rightarrow \text{conformity}} = .21$) and having no religion at all ($\gamma_{\text{no religion} \rightarrow \text{communal}} = -.25$). Again, the correlation between the error terms for communal practices and psychism is significant ($\sigma_{\delta(\psi)-\delta(t)} = .35$), indicating that some influence outside the model is affecting both.

Moral Autonomy Beliefs. Two questions that measure moral autonomy are *following one's own conscience* and *morality as a personal matter*. As predicted by psychism theory's hypothesis 5c, higher reported levels of *psychism* increases both *following one's own conscience* ($\beta_{\psi \rightarrow t} = .22$) and *morality as a personal matter* ($\beta_{\psi \rightarrow t} = .15$), disconfirming conformity theory's hypothesis 5a that spiritual experiences would reduce moral autonomy. In addition, neither measure of autonomy has a statistically significant effect on psychism at the $p < .05$ level, offering no support for hypothesis 5a that moral autonomy reduces the frequency of spiritual experiences. It should also be noted that the effect of psychism relative to the other determinants reaches its height on questions of moral autonomy, where it is more than twice the magnitude of any other factor on *following one's conscience* and half again the magnitude of orthodoxy on *morality as a personal matter* ($\gamma_{\text{orthodoxy} \rightarrow \text{personal}} = -.09$).

Private Religious Practices. The results support psychism theory's hypothesis 6c that psychism increases the frequency of private spiritual practices ($\beta_{\psi \rightarrow t} = .16$), but offer no support for conformity theory's reciprocal effect in hypothesis 6a that private spiritual practices increase the frequency of spiritual experiences or substitution theory's hypothesis 6b that private religious practices would reduce paranormal beliefs such as psychism ($\beta_{t \rightarrow \psi} = -.05$).

CONCLUSIONS

Conformity, substitution, and psychism theories offer competing hypotheses for the effects between spiritual experience and religious beliefs and practices. The 1988 GSS data allow these

hypotheses to be tested using nonrecursive models which simultaneously estimate both paths between the frequencies of psychic experiences and measures of the intensity of religious beliefs and practices. This simultaneous estimation procedure is generally considered one means of determining the direction of causal influence; however, it should be noted that these data are cross-sectional and that perhaps longitudinal data would permit more definitive tests of causality. Nevertheless, these results offer strong support for psychism theory and no support or actual disconfirmation for conformity-based theories and substitution theory. They can also be seen as stronger tests of substitution theory than Orenstein's study in that they distinguish between different types of religious beliefs and practices, use claims of paranormal experience instead of just beliefs, and test direction of influence instead of making it an assumption.

Discussion

The effects of psychism are subtle and difficult to find without both theoretical guidance and a broad enough sample to contrast both spontaneous experiences and experiences sponsored by religious organizations. This study uses a nationally representative sample (the 1988 GSS) and is guided by a definition of psychism as intrusions in the stream of consciousness that (1) convey information which is then (2) built into beliefs that are (3) accepted as supernaturally validated and privileged over beliefs that are validated through plausibility networks. The key findings are that spiritual experiences, for which psychism forms a basis, foster autonomy in moral beliefs and privatization of religious practices. This is a direct contradiction to the widely accepted conception that conformity is the mechanism through which people construct spiritual experiences and that people use spiritual experiences to reinforce religious identities.

These findings suggest that ethnographic studies that couple spiritual experiences with practices that intensify conformity and commitment are misinterpreting the causal link. Religious organizations, which recognize the inherently reinforcing nature of spiritual experiences, may also recognize and work against the possibility for developing and reinforcing heretical beliefs. This effort might be the outside influence on psychism and both conformity and communal practices that was indicated by the correlation between their error terms found in the models. However, other plausible explanations for this influence might include high levels of anxiety or low self-esteem that could increase instances of (or attention to) the psychic intrusions defined as psychism while also encouraging involvement in a religious community.

Psychism theory as developed in this study is presented primarily as a corrective to more comprehensive theories of religion by offering a mechanism through which people have spiritual experiences and turn them into beliefs. However, while it is generally supportive of theories that emphasize the importance of spiritual experiences to religion, it does not necessarily suggest that, as Otto (1952:15) put it, spiritual experiences are “the basic factor and the basic impulse underlying the entire process of religious evolution.” On the other hand, psychism is clearly important to the development of religion. An intruded voice of a dead relative can be constructed into belief in an afterlife, and a disembodied voice calling your name can imply a spirit world populated by totems, gods, and demons. Once those beliefs become available in community discourse, additional psychism experiences and accounts of experiences reproduce them. As anthropomorphized images get projected onto a spirit world, so does the stratification that is readily apparent in the empirical world. When differences in psychism ability turn into control over access to the spirit world, the belief construction process gets appropriated by material

world interests and generates the organizations, dogma, alienation, false consciousness, and secularization long discussed by theorists of religion.

Ultimately, while psychism theory has its most obvious impact on theories of religion, psychism is about social psychological processes and the construction of beliefs and should have observable effects beyond religion. Further research should explore a number of additional consequences. Psychism represents a breach of the symbolic interactionist principle that people construct and validate beliefs using social networks and should therefore entail consequences that take the form of alienation. Also, as a phenomenon that can be construed as a challenge to the rationalized, empirical belief system that underlies modern social institutions, psychism should have an observable effect undermining people's perceptions of rationalized institutions. Finally, psychism offers a unique opportunity to study belief construction and dispersion, especially as people turn claims of an essentially private experience into publicly accepted beliefs.

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Table 1. Hypotheses regarding the direction of influence between spiritual experiences (i.e. psychism) and target religious beliefs and practices.

Target Belief or Practice	(a) Conformity Theory	(b) Substitution Theory	(c) Psychism Theory
1. Religious identity	religious identity + ← psychism →	religious identity - → psychism	no effect between psychism & religious identity
2. Social interaction with God	social interaction + ← psychism →	social interaction - → psychism	psychism + → social interaction
3. Religious conformity	religious conformity + ← psychism →	religious conformity - → psychism	psychism - → religious conformity
4. Communal religious practices	communal practices + ← psychism →	communal practices - → psychism	psychism - → communal practices
5. Moral autonomy	moral autonomy - ← psychism →	No prediction	psychism + → moral autonomy
6. Private religious practices	private practices + ← psychism →	private practices - → psychism	psychism + → private practices

Table 2. Panel A. Percentages by Year for General Social Survey Questions Relating to Psychic Experiences

	<u>ESP Extrasensory Perception</u> <i>felt as though you were in touch with someone when they were far away from you</i>				<u>SPIRITS Spirit Contact</u> <i>felt you were in touch with someone who had died</i>			
	84	88	89	Total	84	88	89	Total
1 never in my life	33.4	35.2	41.8	36.2	57.7	60.1	64.4	60.3
2 once or twice	28.6	35.4	30.1	31.5	23.3	24.2	23.0	23.6
3 several times	28.6	21.5	21.4	24.1	13.8	10.1	8.3	11.0
4 often	9.5	8.0	6.7	8.2	5.1	5.6	4.3	5.1
total	1439	1456	992	3887	1445	1459	991	3895

	<u>VISIONS Clairvoyance</u> <i>seen events that happened at a distance as they were happening</i>				<u>GRACE Mystical Experience</u> <i>felt as though you were very close to a powerful spiritual force that seemed to lift you out of yourself</i>			
	84	88	89	Total	84	88	89	Total
1 never in my life	70.4	71.7	76.7	72.5	59.4	68.5	70.3	65.6
2 once or twice	17.7	17.2	14.3	16.7	20.4	18.3	17.6	18.9
3 several times	9.2	7.6	6.8	8.0	13.7	8.6	7.5	10.2
4 often	2.7	3.4	2.1	2.8	6.5	4.5	4.6	5.3
Total	1434	1440	983	3857	1442	1451	988	3881

Panel B. Percentages by Year for Having Experienced *Any* of the Psychism Experiences Asked in the General Social Survey.

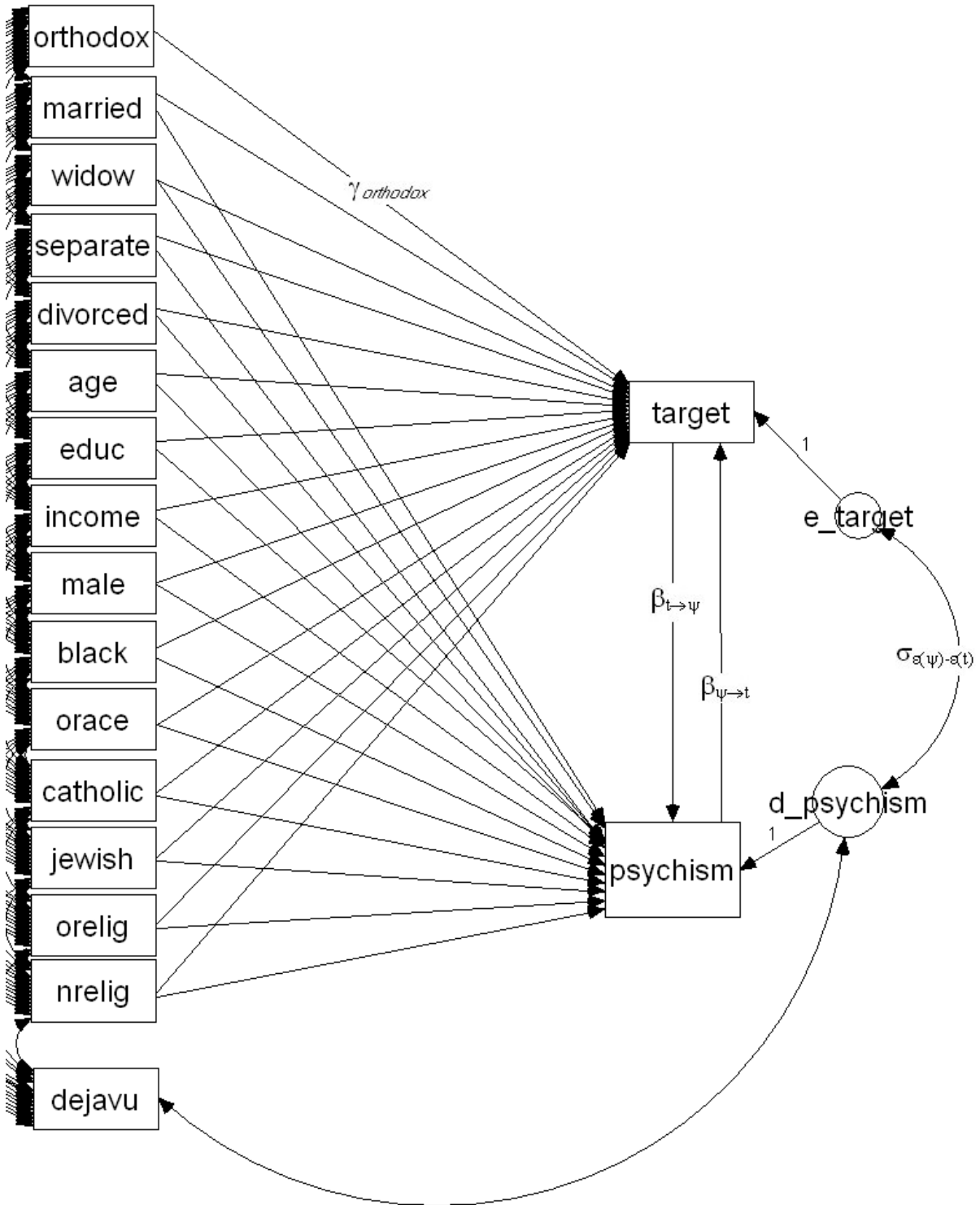
	All Intrusions (including déjà vu)	Psychism only
1 never in my life	13.5	24.5
2 once or twice	27.9	31.4
3 several times	40.1	29.3
4 often	18.1	14.8
Total	3892	3875

Table 3. Summary of Tests for Direction of Effects between Psychism and Religious Beliefs and Practices

Target Religious Beliefs and Practices	Full Information Model	
	Target to Psychism	Psychism to Target
Religious identity	-0.03 (-0.29)	0.00 (0.01)
Social interaction with God		
Perceived Closeness to God	-0.04 (-0.29)	0.23 †† (3.01)
Anger at God	0.14 (0.30)	0.16 † (1.82)
Religious Conformity	-0.03 (-0.29)	-0.26 †† (-3.37)
Communal Religious Practices	-0.05 (-0.29)	-0.29 †† (-3.61)
Moral Autonomy		
Importance of Following Conscience	0.10 (0.30)	0.15 † (1.70)
Morality is a Personal Matter	0.09 (0.30)	0.22 †† (2.49)
Private Practices	-0.04 (-0.29)	0.15 † (2.08)

† p<.05 †† p<.01 one-tailed tests () denote t-scores

Figure 1. Nonrecursive Model of Psychism and Target Beliefs and Practices.



Appendix A. Data Dictionary

The data are drawn from the General Social Survey, for which additional information can be found at <http://www.icpsr.umich.edu/GSS>

Dependent variable: The *psychism scale* is comprised of the following items:

	All are derived from the question sequence: how often have you had any of the following experiences (1=never in my life, 2=once or twice, 3=several times, or 4=often)
ESP	felt as though you were in touch with someone when they were far away from you?
VISIONS	seen events that happened at a distance as they were happening?
SPIRITS	felt you were in touch with someone who had died?
GRACE	felt as though you were very close to a powerful spiritual force that seemed to lift you out of yourself?

Target beliefs and practices:

1. The *religious identity scale* is comprised of the following items:

GOD	tell me which statement comes closest to expressing what you believe about God. 1=I don't believe in God. 2=I don't know whether there is a God and I don't believe there is any way to find out 3=I don't believe in a personal God, but I do believe in a Higher Power of some kind 4=I find myself believing in God some of the time, but not at others 5=While I have doubts, I feel that I do believe in God 6=I know God really exists and I have no doubts about it
MYFAITH	Where would you place your feelings about your faith? If you feel that "My faith is completely free of doubts," you would place yourself at 1. If you feel "My faith is mixed with doubts," you would place yourself at 7. If you feel somewhere between these two, you would place yourself at 2, 3, 4, 5 or 6. (Values are reflected to make free of doubts high.)

2. *Social interaction with God scale* is measured by the following items:

NEARGOD	How close do you feel to God most of the time? (not close at all, not very close, somewhat close, extremely close)
MADATGOD	Here is another card with contrasting ideas. If you feel that "I often feel angry at God," you would place yourself at 1. If you feel "I have never felt angry at God," you would place yourself at 7. If you feel somewhere between these two, you would place yourself at 2, 3, 4, 5 or 6. (Values are reflected to make free of doubts high.)

3. The *religious conformity scale* is comprised of the following items:

BELIEVE	People have many differing views about what makes a person a good Christian or Jew. Please tell me how important is each of the following to you. Once again, please indicate where you would place your feelings on a scale from 1 to 5. How important is it: To believe in God without question or doubt. (Values are coded to make importance high.)
DECBIBLE	Please indicate your answer by stating where you would place your feelings on a scale from 1 to 5 as shown on this hand card. Consider the first topic. If you think the teachings of your church or synagogue is very important in helping you to make decisions about your life, you would place yourself at 1. If you feel it is not very important in helping you to make decisions about your life, then you would place yourself at 5. If you feel the teachings of your church or synagogue is "somewhere between these two" in helping you make decisions about your life, then you would place yourself at 2,

3 or 4. (Values are recoded to make importance high.)

FOLLOW How important is it: To follow faithfully the teachings of their church or synagogue.

4. The *communal religious practices scale* is comprised of the following items:

ATTEND How often do you attend religious services? (Never, Less than once a year, About once or twice a year, Several times a year, About once a month, 2-3 times a month, Nearly every week, Every week)

TITHING About how much do you contribute to your religion every year (not including school tuition)?

CHURHMEM Are you, yourself, a member of a church or synagogue? (Yes=1)

5. *Moral autonomy* is measured by the following items:

GOOWNWAY How important is it: To follow one's conscience even if it means going against what the churches or synagogues say and do.

PERMORAL Please consider the following statements and tell me whether you disagree strongly, disagree somewhat, agree somewhat, or agree strongly with each statement: Morality is a personal matter and society should not force everyone to follow one standard.

6. The *private religious practices scale* is comprised of the following items:

READWORD How often have you read the Bible in the last year? (Never, Less than once a week, Once a week, Several times a week, Once a day, Several times a day)

PRAY About how often do you pray? (Never, Less than once a week, Once a week, Several times a week, Once a day, Several times a day)

Instruments

DEJA VU how often have you thought you were somewhere you had been before, but knowing that it was impossible? (1=never in my life, 2=once or twice, 3=several times, or 4=often)

ORTHODOX Which of these statements comes closest to describing your feelings about the Bible?(1= The Bible is the actual word of God and is to be taken literally, word for word; 2=The Bible is the inspired word of God but not everything in it should be taken literally, word for word; 3=The Bible is an ancient book of fables, legends, history, and moral precepts recorded by men) Values are reflected to make literal interpretation high

Control variables:

MARRIED Recoded from: Are you currently--married, widowed, divorced, separated, or have you never been married? (Married =1, else=0)

WIDOW Recoded from: Are you currently--married, widowed, divorced, separated, or have you never been married? (Widowed =1, else=0)

SEPARATE Recoded from: Are you currently--married, widowed, divorced, separated, or have you never been married? (Separated =1, else=0)

DIVORCED Recoded from: Are you currently--married, widowed, divorced, separated, or have you never been married? (Divorced =1, else=0)

AGE Computed from: What is your date of birth?

EDUC Based on questions: (1) What is the highest grade in elementary school or high school that you finished and got credit for? (2) Did you complete one or more years of college for credit--not including schooling such as business college, technical or vocational school? How many years did you complete?

INCOME Combined family income from 1986 into 1982 categories by assuming individual values are distributed across category by sum of respondent and spouse (DOT) occupational prestige scores. Combined prestige are converted to z-scores, then capped at ± 2 . This is divided by 2 and multiplied by $\frac{1}{2}$ times the difference between the base and midpoint of each category. This result is multiplied by the ratio of the 1984 CPI to 1987 or 1989 depending on the year of the survey, then converted back into 1982 categories, which are:

1 'LT \$1000'	7 '\$7000-7999'	13 '\$20000-22499'
2 '\$1000-2999'	8 '\$8000-9999'	14 '\$22500-24999'
3 '\$3000-3999'	9 '\$10000-12499'	15 '\$25000-34999'
4 '\$4000-4999'	10 '\$12500-14999'	16 '\$35000-49999'
5 '\$5000-5999'	11 '\$15000-17499'	17 '50000+'
6 '\$6000-6999'	12 '\$17500-19999'	

MALE Recoded from: respondent's sex: (male=1, female=0)

BLACK Recoded from: What race do you consider yourself? (Black=1, else=0)

ORACE Recoded from What race do you consider yourself? (Other race=1, else=0)

CATHOLIC Recoded from: What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion? (Catholic=1, else=0)

JEWISH Recoded from: What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion? (Jewish=1, else=0)

ORELIG Recoded from: What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion? (Other Religion=1, else=0)

NRELIG Recoded from: What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion? (No Religion=1, else=0)

Appendix B. Nonrecursive Models

With nonrecursive models, the confidence that can be placed in the results depends on the choice of instruments. The instrument offered for psychism is déjà vu. Both psychism and déjà vu can be seen as “intrusions” or “glitches” in the functioning of the mind, and they are correlated at $\sigma = .32$, but the consequences of interpretations for each are quite different. Aside from fictional accounts or reincarnation, there is little to suggest that anyone interprets the psychic intrusions defined as déjà vu as anything other than an unusual or amusing experience, so these do affect target beliefs or behaviors. On the other hand, intrusions defined as psychism are interpreted as messages from the spirit world that have accompanying moral imperatives (like experiences of the holy, see Otto, 1952), or as “proof” of extrasensory perceptions or other esoteric beliefs. The use of déjà vu effectively measures how much of the effect of intrusions on the target is attributable to the supernatural interpretation.

A single instrumental variable that can be used for all target beliefs and practices is the perception of the Bible as the literal word of God, as inspired by God, or as a book of fables and moral precepts. This can be seen as a measure of Hunter’s (1991) orthodoxy, theorized as the most important cross-denominational influence of religion in America – the perception of an absolute instead of a culturally relative basis for moral authority. While one might theorize that spiritual experiences can validate a literal interpretation, three measures of psychism – ESP, clairvoyance, communication with the dead – can be interpreted as pure intrusions with little reference to religion. Even the last measure, being “*close to a powerful spiritual force*” does not necessarily relate to Biblical literalism. Using orthodoxy as an instrument for the religious beliefs essentially measures how much of the effect of orthodoxy on the frequency of psychism is due to the religious belief or practice – which as predicted is negligible.

One important difference between the proposed model and more typical nonrecursive models is that the instrument for psychism is correlated with instead of a causal factor for psychism. This is an acceptable option discussed by Heise (1975:160) but is rarely offered in standard statistical programs that have modules for nonrecursive analysis such as two stages least squares (2SLS). The correlated model is derived from psychism theory's assertion that both psychism and déjà vu are the result of intrusions, while the standard model might be interpreted as using déjà vu as a measure for the intrusions themselves. AMOS 4.01, the statistical package used in this analysis that modeled the correlated instrument used the full information maximum likelihood (FIML) estimation procedure, but that method assumes multivariate normality, and a quick check of the distribution for psychism showed that it was highly skewed. To verify the results, a program was written to properly residualize the instruments so that SPSS's 2SLS procedure, which does not assume multivariate normality, could approximate the correct model. Results from that model were essentially identical to those reported using the FIML model, demonstrating that the skewed distribution for psychism was not a problem and that the results were not a quirk of specifying the instrumental variable as correlated with – instead of a determinant of – psychism.

One possible objection to this model as a test for conformity theory is that, with two measures that have no direct religious implication (ESP and VISIONS), psychism may not be a good measure for “spiritual experience” as conceived in conformity theory. This objection was met by estimating all models using an alternate measure of psychism that was constructed from the two measures that had the clearest religious implications: SPIRITS, communication with the dead, and GRACE, contact with a spiritual force. The substantive results were the same.

Appendix C. Details of Analysis

Heise and Bohrnstedt (1970) offer several statistics to test the suitability of composite scales over measurement models. With the GSS data, their invalidity statistic for psychism ($\Psi=.0002$) verifies that there is only one factor, their validity statistic ($\rho_{TS}=.84$) shows a high correlation between the scale and the underlying factor, and along with their reliability statistic ($\Omega=.70$), the use of the composite scale instead of the measurement model is supported. Weights for the measures of psychism are the path λ_s obtained from a confirmatory factor analysis, where $\lambda_{esp}=.624$, $\lambda_{visions}=.407$, $\lambda_{spirits}=.604$, and $\lambda_{grace}=.403$. This was conducted using AMOS 4.01. The model fit statistics were $\chi^2=.44$, with 2 degrees of freedom giving a probability of fitting the data at $p=.80$. This procedure is used for all scales in this study.

Detailed results for all models are reported in Table C. The religious identity scale is constructed using *confidence in the existence of God* and *degree which faith is free of doubt*. As with all scales using two measures, the λ_s are weighted at 1. The Heise-Bohrnstedt reliability statistic ($\Omega=.60$) and validity statistic ($\rho_{TS}=.77$) offer acceptable support for using the composite scale. Substantive results are the same if the two measures are tested individually. The two measures of social interaction with God, *closeness to God* and *anger at God*, were modeled separately because they produced Heise-Bohrnstedt reliability ($\Omega=.22$) and validity ($\rho_{TS}=.47$) statistics that are too low to support using these as a scale.

The conformity scale is composed of three questions measuring the *importance of church teachings to make decisions*, the *importance of believing in God without doubt*, and the *importance of following church teachings*. Weights were obtained from a measurement model,

where $\lambda_{\text{church decisions}}=.912$, $\lambda_{\text{belief}}=.824$, and $\lambda_{\text{follow teachings}}=1.091$. The Heise-Bohrstedt statistics ($\Psi=.0001$, $\rho_{\text{TS}}=.88$, $\Omega=.78$) support the use of the scale.

The communal practices scale is composed of three questions measuring the frequency of church or synagogue attendance, the log of the annual contributions to religious organizations, and the church or synagogue membership status. Weights were obtained from a measurement model, where $\lambda_{\text{attendance}}=2.343$, $\lambda_{\text{contributions}}=3.735$, and $\lambda_{\text{membership}}=.302$. The Heise-Bohrstedt statistics ($\Psi=.0001$, $\rho_{\text{TS}}=.86$, $\Omega=.74$) support the use of the composite scale.

Two questions that measure moral autonomy, *following one's own conscience* and *morality as a personal matter*, have too low reliability ($\Omega=.30$) and validity ($\rho_{\text{TS}}=.51$) to be scaled, so they are tested separately.

Finally, two measure of spiritual practices that can reasonably be considered private practices are the *frequency of prayer* and the *frequency of reading the Bible*. The Heise-Bohrstedt statistics ($\Psi=.0006$, $\rho_{\text{TS}}=.83$, $\Omega=.69$) support the use of the composite scale, where each measure λ is weighted at 1.

Table C-1. Standardized Coefficients from Nonrecursive Models of Psychism and Religious Beliefs and Practices using Standard Social Controls.

Dependent→ ↓ Independent	Model 1		Model 2-1		Model 2-2	
	psychism	identity beliefs	psychism	closeness to God	psychism	mad at God
Married (=1)	0.01 (0.30)	0.06 (1.53)	0.02 (0.32)	0.08 * (2.06)	0.01 (0.16)	0.03 (0.76)
Widow (=1)	0.04 (1.04)	-0.03 (-0.76)	0.05 (1.06)	-0.01 (-0.16)	0.04 (0.72)	0.06 (1.36)
Separated (=1)	0.03 (0.79)	0.00 (-0.12)	0.03 (0.81)	0.02 (0.60)	0.02 (0.64)	0.02 (0.72)
Divorced (=1)	0.13 ** (3.67)	0.02 (0.61)	0.13 ** (3.65)	-0.01 (-0.14)	0.13 ** (3.33)	0.01 (0.23)
Age of Respondent	-0.01 (-0.13)	0.06 (1.93)	0.00 (-0.08)	0.09 ** (2.58)	0.02 (0.19)	-0.16 ** (-4.43)
Education (year)	0.00 (-0.02)	-0.01 (-0.39)	0.00 (-0.02)	0.00 (0.00)	-0.01 (-0.15)	0.04 (1.26)
Family Income (scaled)	-0.09 * (-2.42)	0.01 (0.35)	-0.09 * (-2.33)	-0.06 (-2.01)	-0.08 * (-2.43)	0.01 (0.31)
Male (=1)	-0.10 ** (-3.22)	-0.05 (-1.73)	-0.10 ** (-2.88)	-0.11 ** (-3.78)	-0.09 (-1.78)	-0.07 * (-2.28)
Black (=1)	0.05 (1.70)	0.08 ** (2.85)	0.06 (1.67)	0.07 * (2.48)	0.07 (1.18)	-0.11 ** (-3.47)
Other Race (=1)	-0.02 (-0.78)	0.04 (1.49)	-0.03 (-0.84)	0.00 (-0.17)	-0.02 (-0.72)	-0.01 (-0.47)
Catholic (=1)	0.01 (0.39)	0.00 (0.01)	0.01 (0.44)	0.04 (1.33)	0.00 (0.05)	0.07 * (2.21)
Jewish (=1)	-0.01 (-0.33)	-0.10 ** (-3.49)	-0.01 (-0.33)	-0.07 ** (-2.69)	-0.02 (-0.38)	0.06 * (2.05)
Other Religion (=1)	0.05 (1.63)	0.05 (1.71)	0.05 (1.61)	0.02 (0.61)	0.05 (1.60)	-0.04 (-1.44)
No Religion (=1)	-0.03 (-0.69)	-0.17 ** (-5.88)	-0.03 (-0.65)	-0.19 ** (-6.89)	-0.03 (-0.64)	0.07 * (2.16)
Orthodoxy		0.35 ** (12.12)		0.25 ** (8.51)		-0.07 * (-2.15)
Déjà vu correlation	0.32 ** (10.93)		0.33 ** (10.39)		0.32 ** (8.45)	
Error correlation (ψ -t)	0.11 (0.95)		-0.01 (-0.08)		-0.23 (-0.51)	
Target/Psychism	-0.03 (-0.29)	0.00 (0.01)	-0.04 (-0.29)	0.23 †† (3.01)	0.14 (0.30)	0.16 † (1.82)
R-squared	0.05	0.23	0.03	0.24	0.05	0.06
Stability Index		0.000		0.009		0.021
Chronbach's α	0.68	0.61	0.68		0.68	
H-B reliability Ω	0.70	0.60	0.70		0.70	
H-B validity ρ_{TS}	0.84	0.77	0.84		0.84	
H-B invalidity Ψ	0.00	0.00	0.00		0.00	

* p<.05 ** p<.01 two-tailed tests † p<.05 †† p<.01 one-tailed tests () denote t-scores

N=1128

Table C-2. Standardized Coefficients from Nonrecursive Models of Psychism and Religious Beliefs and Practices using Standard Social Controls.

Dependent→ ↓ Independent	Model 3		Model 4		Model 5-1	
	psychism	conformist beliefs	psychism	communal practices	psychism	morality is personal
Married (=1)	0.01 (0.30)	0.07 (1.86)	0.02 (0.37)	0.18** (4.38)	0.01 (0.28)	-0.01 (-0.15)
Widow (=1)	0.04 (1.06)	0.01 (0.27)	0.05 (1.09)	0.08 (1.92)	0.05 (1.08)	-0.01 (-0.31)
Separated (=1)	0.02 (0.78)	-0.01 (-0.28)	0.02 (0.78)	0.00 (-0.11)	0.02 (0.76)	0.01 (0.29)
Divorced (=1)	0.13** (3.66)	0.03 (0.85)	0.13** (3.56)	0.00 (-0.11)	0.13** (3.32)	0.02 (0.62)
Age of Respondent	-0.01 (-0.12)	0.07* (2.02)	0.00 (0.04)	0.18** (5.33)	0.00 (0.07)	-0.10** (-2.67)
Education (year)	0.00 (-0.07)	-0.08** (-2.66)	0.01 (0.18)	0.17** (5.29)	0.01 (0.21)	-0.09** (-2.65)
Family Income (scaled)	-0.09* (-2.38)	-0.12** (-3.56)	-0.08* (-2.18)	0.08* (2.32)	-0.08* (-2.02)	-0.05 (-1.42)
Male (=1)	-0.10** (-3.25)	-0.05 (-1.73)	-0.10** (-3.19)	-0.07* (-2.52)	-0.10** (-3.01)	0.06 (1.82)
Black (=1)	0.05 (1.71)	0.08** (2.69)	0.06 (1.64)	0.11** (3.87)	0.05 (1.68)	0.00 (-0.07)
Other Race (=1)	-0.02 (-0.80)	0.02 (0.68)	-0.03 (-0.84)	-0.01 (-0.50)	-0.02 (-0.83)	0.00 (0.03)
Catholic (=1)	0.01 (0.40)	0.01 (0.41)	0.01 (0.47)	0.06 (1.90)	0.01 (0.34)	0.01 (0.32)
Jewish (=1)	-0.01 (-0.30)	-0.04 (-1.30)	-0.01 (-0.28)	-0.01 (-0.39)	-0.01 (-0.34)	0.03 (1.05)
Other Religion (=1)	0.05 (1.58)	0.02 (0.61)	0.05 (1.40)	-0.04 (-1.44)	0.05 (1.51)	0.01 (0.18)
No Religion (=1)	-0.03 (-0.67)	-0.23** (-8.17)	-0.03 (-0.60)	-0.26** (-8.86)	-0.03 (-0.69)	0.06 (1.82)
Orthodoxy		0.36** (12.22)		0.21** (7.01)		-0.09** (-2.93)
Déjà vu correlation	0.32** (10.53)		0.32** (9.75)		0.32** (9.56)	
Error correlation (ψ -t)	0.35** (3.22)		0.37* (2.45)		-0.14 (-0.39)	
Target/Psychism	-0.03 (-0.29)	-0.26†† (-3.37)	-0.05 (-0.29)	-0.29†† (-3.61)	0.10 (0.30)	0.15† (1.70)
R-squared	0.05	0.22	0.05	0.18	0.06	0.05
Stability Index		0.007		0.013		0.015
Chronbach's α	0.68	0.76	0.68	0.80	0.70	
H-B reliability Ω	0.70	0.78	0.70	0.74	0.70	
H-B validity ρ_{rs}	0.84	0.88	0.84	0.86	0.84	
H-B invalidity Ψ	0.00	0.00	0.00	0.00	0.00	

* p<.05 ** p<.01 two-tailed tests † p<.05 †† p<.01 one-tailed tests () denote t-scores
N=1128

Table C-3. Standardized Coefficients from Nonrecursive Models of Psychism and Religious Beliefs and Practices using Standard Social Controls.

Dependent→ ↓ Independent	Model 5-2		Model 6	
	psychism	follow own conscience	psychism	private practices
Married (=1)	0.01 (0.28)	-0.01 (-0.22)	0.02 (0.33)	0.10* (2.75)
Widow (=1)	0.05 (1.09)	-0.03 (-0.81)	0.05 (1.08)	0.04 (1.02)
Separated (=1)	0.02 (0.66)	0.03 (0.94)	0.03 (0.82)	0.03 (1.20)
Divorced (=1)	0.13** (3.50)	0.00 (-0.01)	0.13** (3.66)	0.01 (0.39)
Age of Respondent	-0.01 (-0.31)	0.08* (2.19)	0.00 (0.01)	0.18** (5.62)
Education (year)	-0.01 (-0.14)	0.06 (1.67)	0.00 (0.07)	0.08** (2.56)
Family Income (scaled)	-0.09* (-2.42)	0.04 (0.99)	-0.09* (-2.23)	-0.11** (-3.71)
Male (=1)	-0.09** (-2.79)	-0.03 (-0.96)	-0.10** (-2.80)	-0.13** (-4.88)
Black (=1)	0.06 (1.57)	-0.07* (-2.35)	0.06 (1.66)	0.08** (3.16)
Other Race (=1)	-0.03 (-0.87)	0.07* (2.24)	-0.03 (-0.88)	-0.07** (-2.67)
Catholic (=1)	0.01 (0.32)	0.02 (0.46)	0.01 (0.20)	-0.12** (-4.59)
Jewish (=1)	-0.01 (-0.31)	0.02 (0.60)	-0.01 (-0.36)	-0.12** (-4.72)
Other Religion (=1)	0.05 (1.62)	-0.02 (-0.66)	0.05 (1.51)	-0.03 (-1.21)
No Religion (=1)	-0.03 (-0.70)	0.05 (1.55)	-0.03 (-0.65)	-0.19** (-7.16)
Orthodoxy		-0.10** (-3.10)		0.24** (8.80)
Déjà vu correlation	0.32** (8.63)		0.33** (10.69)	
Error correlation (ψ -t)	-0.25 (-0.78)		0.01 (0.09)	
Target/Psychism	0.09 (0.30)	0.22†† (2.49)	-0.04 (-0.29)	0.15† (2.08)
R-squared	0.05	0.02	0.04	0.31
Stability Index		0.020		0.006
Chronbach's α	0.70		0.70	0.69
H-B reliability Ω	0.70		0.70	0.69
H-B validity ρ_{rs}	0.84		0.84	0.83
H-B invalidity Ψ	0.00		0.00	0.00

* p<.05 ** p<.01 two-tailed tests † p<.05 †† p<.01 one-tailed tests () denote t-scores
N=1128

Appendix D. Descriptive Statistics and Correlations.

	Mean	St Dev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Psychism	3.45	1.29	1.00														
2 Single	0.20	0.40	-0.03	1.00													
3 Married (=1)	0.53	0.50	-0.11	-0.54	1.00												
4 Widow (=1)	0.10	0.30	0.06	-0.17	-0.36	1.00											
5 Separated (=1)	0.03	0.18	0.02	-0.09	-0.19	-0.06	1.00										
6 Divorced (=1)	0.13	0.34	0.14	-0.20	-0.41	-0.13	-0.07	1.00									
7 Age of Respondent	44.13	17.65	0.02	-0.39	0.07	0.46	-0.05	-0.02	1.00								
8 Education (year completed)	12.66	3.01	-0.04	0.12	0.00	-0.22	-0.03	0.06	-0.31	1.00							
9 Family Income (scaled)	11.70	4.55	-0.12	-0.15	0.34	-0.22	-0.08	-0.08	-0.12	0.38	1.00						
10 Male (=1)	0.43	0.50	-0.13	0.10	0.10	-0.20	-0.06	-0.06	0.07	0.15	1.00						
11 Black (=1)	0.12	0.32	0.07	0.10	-0.12	-0.02	0.06	0.05	-0.08	-0.16	0.00	1.00					
12 Other Race (=1)	0.03	0.18	-0.02	0.00	0.00	0.02	0.02	-0.03	-0.05	-0.04	-0.08	-0.01	-0.07	1.00			
13 Catholic (=1)	0.27	0.44	0.00	-0.01	0.00	0.02	0.04	-0.03	-0.02	0.00	0.13	-0.04	-0.17	0.03	1.00		
14 Jewish (=1)	0.02	0.14	-0.02	0.06	-0.01	-0.01	-0.03	-0.04	-0.02	0.14	0.09	-0.03	-0.05	-0.03	-0.09	1.00	
15 Other Religion (=1)	0.02	0.16	0.04	0.03	-0.01	0.00	-0.03	-0.01	-0.02	0.11	-0.03	0.06	0.06	0.06	-0.10	-0.02	1.00
16 No Religion (=1)	0.07	0.25	-0.03	0.15	-0.12	-0.09	0.05	0.05	-0.14	0.04	-0.03	0.10	-0.01	-0.01	-0.16	-0.04	-0.04
17 Protestant (=1)	0.62	0.49	0.01	-0.10	0.07	0.03	-0.04	0.01	0.10	-0.10	-0.12	-0.02	0.16	-0.04	-0.77	-0.19	-0.20
18 Orthodoxy	3.17	0.70	0.01	-0.13	0.08	0.10	0.02	-0.07	0.12	-0.29	-0.18	-0.10	0.07	0.03	-0.13	-0.14	-0.10
19 Dġà vu	2.14	0.94	0.33	0.09	-0.09	-0.14	0.05	0.12	-0.27	0.16	0.04	-0.04	-0.02	-0.05	0.03	0.05	0.08
20 Christian identity beliefs	10.20	2.56	0.09	-0.13	0.10	0.04	-0.01	-0.03	0.12	-0.15	-0.07	-0.09	0.10	0.05	-0.03	-0.15	0.02
21 perceived closeness to God	4.04	0.83	0.22	-0.14	0.06	0.09	0.02	-0.02	0.16	-0.16	-0.14	-0.18	0.10	0.00	0.02	-0.12	0.01
22 anger at God	2.65	1.64	0.05	0.03	-0.03	-0.03	0.02	0.02	-0.15	0.11	0.06	-0.08	-0.11	-0.01	0.09	0.08	-0.05
23 conformist religious beliefs	10.26	3.05	0.06	-0.14	0.09	0.11	-0.02	-0.06	0.18	-0.26	-0.18	-0.10	0.10	0.04	-0.02	-0.10	-0.02
24 communal religious practices	17.91	22.70	0.00	-0.22	0.25	0.08	-0.06	-0.14	0.22	0.05	0.15	-0.07	0.03	-0.03	0.07	-0.01	-0.05
25 morality is a personal matter	3.85	1.23	0.06	-0.02	-0.02	-0.01	0.03	0.04	0.03	0.08	0.05	-0.04	-0.09	0.05	0.04	0.04	0.00
26 follow own conscience	3.00	0.90	0.11	0.06	-0.06	-0.05	0.02	0.05	-0.09	-0.04	-0.07	0.04	0.02	0.01	0.00	0.02	0.01
27 private religious practices	6.61	2.53	0.18	-0.19	0.06	0.16	0.02	-0.01	0.26	-0.15	-0.19	-0.21	0.13	-0.07	-0.14	-0.14	-0.02

1	Psychism	16	17	18	19	20	21	22	23	24	25	26	27
2	Single												
3	Married (=1)												
4	Widow (=1)												
5	Separated (=1)												
6	Divorced (=1)												
7	Age of Respondent												
8	Education (year completed)												
9	Family Income (scaled)												
10	Male (=1)												
11	Black (=1)												
12	Other Race (=1)												
13	Catholic (=1)												
14	Jewish (=1)												
15	Other Religion (=1)												
16	No Religion (=1)	1.00											
17	Protestant (=1)	-0.34	1.00										
18	Orthodoxy	-0.19	0.29	1.00									
19	Déjà vu	0.07	-0.10	-0.12	1.00								
20	Christian identity beliefs	-0.25	0.19	0.41	-0.07	1.00							
21	perceived closeness to God	-0.28	0.16	0.33	0.01	0.57	1.00						
22	anger at God	0.08	-0.13	-0.12	0.11	-0.25	-0.14	1.00					
23	conformist religious beliefs	-0.32	0.22	0.47	-0.19	0.54	0.42	-0.21	1.00				
24	communal religious practices	-0.35	0.14	0.25	-0.18	0.35	0.37	-0.08	0.41	1.00			
25	morality is a personal matter	0.05	-0.07	-0.13	0.08	-0.12	-0.04	0.12	-0.21	-0.07	1.00		
26	follow own conscience	0.09	-0.06	-0.09	0.08	-0.10	-0.04	0.03	-0.17	-0.19	0.15	1.00	
27	private religious practices	-0.26	0.31	0.37	-0.05	0.51	0.57	-0.12	0.48	0.49	-0.06	-0.12	1.00