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Content Analysis of an Anomalous Memorata Collection: Testing Hypotheses Regarding Universal Features

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The experiential source theory suggests that certain types of anomalous experiences are a source of recurring folk beliefs in spirits, souls, life after death, and magical abilities. The theory implies that these anomalous perceptions have physiological bases. Content analysis of a collection of oral accounts of anomalous memorates (N = 1215) indicates that experiences of apparitions, paranormal dreams, and waking extrasensory perceptions have cross-culturally uniform structures and that these experiences coincide with recurring elements within folk traditions. These findings support the experiential source theory and a broader ritual healing theory explaining the origin of religion.

Even though “religious experiences” are thought to be central to religiosity, scholars find precise definitions for the concept to be elusive (Yamane 1998). Varieties of religious experience often appear under other labels such as mystical, ecstatic, numinous, anomalous, and paranormal. Some theorists argue that there is nothing specifically religious about any piece of human data and that religious experiences are merely cognitions labeled as such (Proudfoot 1985). Within this paradigm, no universal features exist which allow any experience to be defined as uniquely “religious.” In opposition to this orientation, the experiential source theory hypothesizes that certain anomalous experiences have biological bases which generate prevalent forms of folk belief in spirits, souls, life after death, and magical abilities.

Content analyses of collections of anomalous accounts allow evaluation of this hypothesis. The present study seeks to overcome definitional problems by analyzing a collection of experiences regarded by informants as sufficiently “unusual” to be worth telling others. When informants present first-hand accounts as authentic, folklorists label their reports as memorates. Memorates

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dealing with the supernatural will be termed anomalous, since they are often thought to involve scientifically unexplained forces. Anomalous experiences are defined as perceptions with qualities making their explanation problematic. People feel memorates are worth telling when they believe their narratives have bearing on unresolved issues of interest.

According to the experiential source theory, folk religions are constructed, in part, when people exchange and evaluate information about such anomalous incidents (Bennitt 1987; Hufford 1982; McClenon 1994). These cognitive events are hypothesized to have (1) universal features derived from their physiological basis and (2) the capacity to generate beliefs regarding spirits, souls, life after death, and magical abilities. Questions regarding whether anomalous memorates are beyond scientific explanation will not be addressed.

STRUCTURAL FEATURES WITHIN ANOMALOUS EXPERIENCE

Consciousness (inner speech, imagery, perception, and voluntary control of thought and action) are portrayed in PET scans as associated with activation of specific brain areas (Baars 1997). Neuroscientists find that specific perceptions correspond with analogous physiological events. Temporal lobe regions have been identified as the most likely centers associated with religious and anomalous experiences (Makarec and Persinger 1990; Persinger and Makarec 1987). This evidence coincides with a general body of research that indicates that religious practice has a biological basis (Wulff 1997). For example, Waller *et al.* (1990) administered five scales regarding religious values, interest, and practice to samples of identical and fraternal twin pairs. They determined that approximately 50 percent of the observed variance of all five measures were genetically influenced.

Verification of universal features within anomalous experiences would support the experiential source theory and contribute to understanding the linkage between biology and religion. Previous researchers, collecting cases from a variety of cultures, have identified internal structural patterns regarding apparitions, paranormal dreams, and waking extrasensory perception (ESP) accounts. Gurney, Myers, and Podmore (1970/1886) analyzed 712 cases of telepathy, collected by the Society for Psychical Research (SPR) from Victorian British respondents (often upper class) during the 1880s. Accounts were selected to include only ESP and apparitions providing extrasensory information with time between experience and event less than 24 hours. Schouten (1979) conducted a content analysis of the SPR cases, selecting narratives that were spontaneous and that provided sufficient data for evaluation ($N = 562$). Schouten (1981) analyzed the "Sannwald" collection, consisting of 1000 ESP experiences collected in Germany between 1950 and 1959. Rhine (1981) collected over 10,000 anomalous experience reports in the USA during the forties, fifties, and sixties. Schouten (1982) analyzed a 1630 case sample of Rhine's collection of ESP cases.

Virtanen (1990) collected and analyzed 865 "simultaneous informatory experiences" gathered in Finland during the 1970s. Simultaneous experiences were defined as perceptions of information paranormally received at the time the event occurred. Emmons (1982) conducted a random telephone survey study of anomalous experiences and belief of Hong Kong residents (June 1980 to January 1981; $N = 1,501$) and administered questionnaires to 1,989 Hong Kong secondary-school students. Most narratives were classified as apparitions and ESP. Hufford (1982) and McClenon (1993, 1994) gathered anomalous memorates from Canada, USA, Japan, and China finding common narrative features which seemingly have the capacity to affect experiencers' beliefs.

Patterns found by these studies reflect recurring features pertaining to family, death, and physiological processes thought to be associated with the movement of information from unconsciousness to consciousness during sleeping, waking, and borderline states (Virtanen 1990). Extrasensory information (allegedly) can be perceived externally while awake (apparitions), internally while awake (waking ESP), and internally during sleep (paranormal dreams). The wide diversity of geographical, temporal, and social settings from which these collections were obtained suggests that hypotheses derived from these studies could be replicated using any large representative collection.

Hypothesis 1: The literature indicates that a range of 51.5 percent to 65.4 percent of extrasensory message accounts involve close family members (Rhine 1981; Schouten 1979, 1981, 1982; Virtanen 1990). Analysis of equivalent memorate collections should provide percentages within, or close to, this range.

Hypothesis 2: The literature indicates that a range of 37.3 percent to 66.7 percent of ESP perceptions involve death (Rhine 1981; Schouten 1979, 1981, 1982; Virtanen 1990). Analysis of equivalent memorate collections should provide percentages within, or close to, this range.

Hypothesis 3: Studies indicate that "type of experience" (apparition, paranormal dream, waking ESP) is associated with "temporal target," i.e., whether the experience is telepathic (pertaining to the present) or precognitive (pertaining to the future). Paranormal dreams are more frequently precognitive (Rhine 1981; Schouten 1982: 149–150; Virtanen 1990: 143).

Hypothesis 4: The "type of experience" is associated with degree of "conviction" (indicated by the experiencer taking action). Waking ESP leads to greater conviction than do paranormal dreams (Rhine 1981; Schouten 1979: 437–438, 1982: 147; Virtanen 1990: 132–136).

Hypothesis 5: "Type of experience" is associated with "completeness of data" (number of details, person or event identified). Paranormal dreams tend to provide more details than do other forms of experience (Rhine 1981: 130–132; Schouten 1979: 441, 1981: 42, 1982: 147).

Hypothesis 6: "Conviction" is negatively correlated with "completeness of details." In particular, waking ESP intuitions provide few details but are associated with greater conviction (Schouten 1981: 42, 1982: 147).

Hypothesis 7: "Severity of event" (death being most severe and other events less so) is negatively correlated with "completeness of data." Messages involving death typically include less detail (Schouten 1979: 441, 1981: 42, 1982: 147).

Hypothesis 8: Apparition accounts reveal universal "abnormal features of perception" which include (a) images disappearing or fading out, (b) insubstantial images, (c) glowing images, (d) special white and dark clothing, (e) sickly or horrible appearance, (f) partial bodies, (g) abnormal walking, and (h) abnormal sounds (Emmons 1982: 75–92). Content analysis of apparition accounts from any society should detect these features.

Hypothesis 9: Features within the *content* of anomalous experiences generate belief in spirits, souls, life after death, and magical abilities. A non-trivial percentage of respondents should describe modification of belief, indicated by rhetorically powerful reports of surprise and belief overcoming skepticism. Content analysis of emotional response to, and explanations of, memorate accounts should support this claim.

METHODOLOGY

Introduction to Anthropology students at Elizabeth City State University (ECSU) in Northeastern North Carolina were assigned to collect a minimum of three narratives as part of an ethnographic research project. They were instructed to interview family, neighbors, and friends, recording responses to the question, "If you have had a very unusual experience, would you describe it?" Informants were not restricted by topic but urged to provide any narrative they regarded of interest including religious experiences, general folklore, and oral history. Previous studies indicate that over half of USA respondents have anomalous memorates they might report (McClenon 1994). Interviewers were directed to transcribe respondents' exact words, attempting not to bias response. The use of local students for gathering "sensitive" oral accounts is standard within folklore research, more valid methodologically than assigning non-local interviewers to this task.

Between 1988 and 1996, 1446 narratives were collected. Narratives were coded regarding experienter's gender, age, race/ethnicity, occupational status, and whether the narrative was first-hand, second-hand, or "folklore" (more than second-hand). Anomalous memorate categories were devised to reflect prevalent forms described in the literature (Emmons 1982; McClenon 1994; Rhine, 1981; Schouten 1979, 1981, 1982; Virtanen 1990). All surveyed groups report apparitions, paranormal dreams, waking extrasensory perceptions (ESP), psychokinesis (PK), spiritual healing, out-of-body experiences, sleep paralysis, occult events, and other forms of anomalous¹ experience (McClenon 1994). Because some

¹ The decision regarding whether an account was "anomalous" was made by a multiple judging procedure, evaluated by a statistical measure of reliability (Krippendorff 1980: 138).

narratives contained more than one experience, a "second most significant" experience was coded as "secondary." Psychokinesis was generally (arbitrarily) coded as secondary to apparitional perceptions.

A five page "guidelines" text aided coders in identifying narrative forms. *Apparitions* consist of perceptions, thought to be exterior to the observer, having anomalous qualities. *Paranormal dreams* include information, gained anomalously while dreaming, later verified as valid. *Waking extrasensory perceptions* entail gaining information anomalously during an awake state. *Psychokinesis* involves perception of physical action lacking normal explanation. *Healing* accounts refer to spiritual or psychic healing. *Occult events* refer to magical practices or rituals utilized outside of organized religion to influence events or to produce anomalous experiences (rootlore, which may produce occult events, is classified separately). *Rootlore*, occult practices associated with African-American traditions, refers to magical rituals with African origins producing anomalous results. *Synchronistic experiences* entail the perception, not regarded as ESP, that two seemingly unrelated events coincide in an improbable manner, such as an omen predicting an event. *Out-of-body experiences* entail an awake person feeling separate from his or her body. *Sleep paralysis* experiences refer to the perception of awakening, being unable to move, and perceiving unusual sensations. *Unidentified flying objects* (UFOs) must be described as moving in the sky or else they are classified as apparitions. *Miscellaneous paranormal events* include all other phenomena labeled by informants as being unexplained by normal means. *Anomalous* events can be defined as those classified within one of the above categories.

When asked to describe unusual experiences, Northeastern North Carolina respondents tended to describe anomalous events rather than perceptions typically labeled "religious experiences." Yet most anomalous accounts could be categorized within Hardy's (1979) collection of religious experiences. Two hundred and thirty-one narratives were judged to contain no anomalous features (students were directed to transcribe any account a respondent considered worth telling). Some non-anomalous accounts consisted of unusual dreams, deemed *normal* rather than *paranormal* (for example, dreaming of a deceased person without gaining verifiable information). Other non-anomalous accounts constituted oral history.² Virtually all contacts with spiritual forces included anomalous elements within the narrative. This finding suggests that "pure" experiences of religious entities (reflecting faith without including paranormal features) have less impact on folk traditions than do anomalous experiences.

Narratives were coded regarding severity of event ("death," "illness," "accident or distress," "other topics important to experiencer," and "other topics

² Some students were uncomfortable collecting anomalous accounts and specifically sought oral history narratives.

trivial to experiencer"). Coders responded either affirmatively or negatively to the question, "Does the experience suggest anthropomorphic processes, i.e., are there 'faces in the clouds,' 'voices in the wind,' or other ambiguous perceptions, such as mist, fog, or sporadic noises, that are interpreted as having human-like causes?" Respondent explanations for their perception (present in some accounts) were coded as "extrasensory perception, intuition, sixth sense," "God, religious explanation," "deceased person," and "other." Texts were coded for whether they mentioned belief, skepticism, fear or negative emotion, happiness or positive emotion, and surprise.

Accounts referring to anomalous transmission of facts were coded regarding quality of information: "complete" (coherent message with relevant details), "incomplete" (person's identity not provided, event not provided, or message distorted), or "blocked" (no idea or message gained; experiencer receives merely an emotion or compulsion). For chi square analysis, the quality variable was recoded as "complete" or "incomplete" (including the "blocked" classification). The experiencer's conviction was coded regarding whether the individual (1) "took action" due to conviction, (2) "took no action" but "just knew something without questioning," or (3) "the narrative does not indicate strong conviction." For chi square analysis, this variable was recoded as "complete" (taking action) or "incomplete" (not taking action). Paranormally obtained information was coded with regard to whether it referred to past, present, or future events (temporal target) and whether it referred to the experiencer's spouse, parent, child, sibling, other relative, friend, neighbor, or other person. If the experience was an apparition, it was coded for number of individuals experiencing it simultaneously and whether it included the features listed in hypothesis 8.

Student teams independently coded all narratives twice and revised a five page text of coding "guidelines" to resolve coding differences, creating a single code list. Alternate teams recoded the narratives, using the revised guidelines. Judges compared the two coding lists and resolved differences, further refining the guidelines. As a result, finalized coding was based on the cumulative result of four evaluations.

In order to evaluate coding reliability, a skeptical assistant coded the 218 narratives pertaining to quality of information and experience form (Table 2) and also 200 narratives randomly selected from the entire collection. Comparison of these data with previous coding allowed calculation of conservative agreement coefficients (Krippendorff 1980: 138).³ Agreement coefficients pertaining to the 218 extrasensory message cases indicate that reliability problems do not jeopardize analysis conclusions: experiential form, 0.96; severity, 0.89; quality, 0.85; conviction, 0.91; temporal target, 0.89. Coefficients derived from

³ When there are two coders, nominal scales, and a large sample size, the agreement coefficient = $1 - [(100 - \% \text{ of observed matches}) / (100 - \% \text{ of expected matches})]$.

the 200 case ransom sample also indicate adequate reliability: form, 0.92; severity, 0.82.

CHARACTERISTICS OF THE NARRATIVE COLLECTION

The North Carolina informant sample differed from previously mentioned American, British, Chinese, Japanese, and Finish samples. Northeastern North Carolina is culturally isolated, mostly rural, economically disadvantaged, with a high percentage of African Americans. Elizabeth City State University (ECSU) is a small, predominately black college in Elizabeth City, North Carolina. Narratives which included demographic data indicate that informants were 68.5 percent women, 71.2 percent African Americans, 15.2 percent white-collar workers, 29.3 percent blue-collar workers, 37.4 percent full-time students, 7.5 percent housewives, and 8.9 percent retired. These statistics reflect the family, neighborhood, and friendship patterns of the average student taking an anthropology class at ECSU. Because anthropology is a required course for many students, those taking the class are typical of ECSU liberal arts majors.

TABLE 1

Anomalous Experience Memorates	Type of Narrative			% total
	primary	secondary	total	
Apparition	496	147	643	34.4%
Paranormal dream	157	22	179	9.6
Psychokinesis	96	73	169	9.0
Healing	85	29	114	6.1
Rootlore	87	6	93	5.0
Sleep paralysis	71	16	87	4.7
Waking ESP	59	22	81	4.3
Synchronistic events	42	17	59	3.2
Misc. paranormal	33	11	44	2.4
Occult event	30	13	43	2.3
Out-of-body experience	30	5	35	1.9
Unidentified Flying Object	<u>29</u>	<u>2</u>	<u>31</u>	<u>1.7</u>
Total anomalous types:	1215	363	1578	84.4
Other Types of Report:				
Folklore	91	38	129	6.9
Normal dream	75	18	93	5.0
Oral history	<u>65</u>	<u>5</u>	<u>70</u>	<u>3.7</u>
Total other types:	231	61	292	15.6
Column totals:	1446	424	1870	100.0

Table 1 portrays the forms of experience within the Northeastern North Carolina collection. The most significant event described in each of the 1446 narratives was coded as "primary." The second most significant event, if any, was labeled "secondary" (among the 1578 anomalous experience reports: 77.0 percent primary incidents, 23.0 percent secondary incidents). Among codable "primary" anomalous experiences, 78.3 percent were first person accounts and 10.2 percent were second-hand accounts. All narratives pertaining to anomalous perceptions or folk traditions, not first or second-hand accounts, were coded as "folklore." Unless otherwise stated, statistical analysis reflects first and second-hand reports of anomalous memorates.

ANALYSIS OF HYPOTHESES

Hypothesis 1: Other collections present a range of 51.5 percent to 65.4 percent accounts referring to close family members (parents, siblings, children). The predominately African-American sample contains only 25.1 percent accounts concerning close family members (significantly less than found in previous studies) and 24.3 percent applying to other family members (significantly greater; $p < .001$). Many North Carolina narratives portray non-nuclear families with close relationships with grandparents (often subjects of paranormal messages), friends, and neighbors. Although hypothesis 1 was not verified exactly, a majority of recipients of paranormal messages received information pertaining to those with whom they had a close emotional relationship. The evidence suggests that emotional bonds are important in determining ESP targets, and, in that respect, supports hypothesis 1.

Hypothesis 2: As predicted by hypothesis 2, death was an important theme within extrasensory messages: 85 of the 208 paranormal dream and waking ESP cases pertained to death (40.9 percent), a percentage within the range noted in the literature (37.3 percent to 66.7 percent). A dead person was mentioned in 63.2 percent of apparition accounts.

The collection contained many narratives reporting events occurring simultaneously with a death. In 1894, members of the British Society for Psychical Research calculated the ratio of the apparition-death coincidences within their collection to be 30 out of about 1300 cases (1/43; Sidgwick and Committee 1894). The North Carolina collection also revealed high incidence of experiences coinciding with a death: 1/36 of apparitions, 1/18 of paranormal dreams, 1/13 of waking ESP, 1/44 of PK, and 1/8 of synchronistic experiences occurred while someone was dying. Many of these episodes had particular impact in stimulating belief in spirits, souls, and life after death due to this simultaneous element (hypothesis 9).

Hypothesis 3: The form of experience was significantly related to whether the message pertained to present or future events (table 2: chi. sq. = 70.46, df = 2, Prob. < 0.0001). As predicted, paranormal dreams were significantly more

likely to provide the experiencer with information pertaining to future events (82.1 percent of paranormal dreams applied to the future compared to 47.3 percent of ESP messages and 27.4 percent of apparitional messages).

TABLE 2
Hypotheses E-3, E-4, E-5
Form of Experience vs. Time, Conviction, Quality of Information

	Form of Experience			
	Apparition	Paranormal Dream	ESP	
<i>Time</i>				
Telepathic (pertains to present)	61 (72.6%)	26 (17.8%)	29 (52.7%)	116
Precognitive (pertains to future)	23 (27.4%)	120 (82.2%)	26 (47.3%)	169
	84 (100%)	146 (100%)	55 (100%)	285
E-3: Chi. sq. = 70.46 df = 2, Prob. < 0.0001				
<i>Conviction</i>				
High (experiencer takes action)	10 (33.3%)	20 (14.9%)	17 (47.2)	47
Low (experiencer does not take action)	20 (66.6%)	114 (85.1%)	19 (52.8%)	153
	30 (100%)	134 (100%)	36 (100%)	200
E-4: chi. sq. = 18.36, df = 2, Prob. = 0.0001 ^a				
<i>Quality of Information</i>				
Complete	21 (61.8%)	81 (55.5%)	8 (21.1%)	110
Incomplete	13 (38.2%)	65 (44.5%)	30 (78.9%)	108
	34 (100%)	146 (100%)	38 (100%)	218
E-5: Chi sq. = 16.36, df = 2, Prob. = 0.0003				

^a Values are uncorrected for low expected frequencies in 2 cells.

Hypothesis 4: As predicted, form of experience was associated significantly with the degree of conviction indicated by action (Table 2: chi. sq. = 18.36, df = 2, Prob. = 0.0001). Of individuals reporting paranormal dreams, only 14.9 percent demonstrated conviction through action, compared to 33.3 percent of

those receiving apparitional messages and 47.2 percent of those reporting waking extrasensory perceptions.

Hypothesis 5: The form of experience was significantly related to the quality of information gained (Table 2: chi.sq. = 16.36, df = 2, Prob. = 0.0003). Only 21.1 percent of waking ESP episodes provided complete information compared to 55.5 percent of paranormal dreams and 61.8 percent of apparitions.

Hypothesis 6: Quality of information was inversely and significantly correlated with conviction within anomalous message cases ($r = -0.144$, $p = .04$, $n = 195$; chi sq. = 11.61, df = 4, prob. = 0.02; uncorrected for small expected frequencies in 2 cells). This relationship can be regarded as spurious; it results from characteristics of form of experience. Precognitive dreams tend to provide high quality of information coupled with low conviction; extrasensory perceptions tend to supply low quality of information but high conviction. When controlling by form of experience (apparitions, dreams, ESP), correlations between quality of information and conviction varied. Dreams and waking ESP reveal virtually no correlations ($r = -.02$ in both cases); apparitions revealed a positive nonsignificant correlation ($r = 0.23$, $n = 27$).

TABLE 3

Hypothesis E-6
Severity of Event vs. Quality of Information in Paranormal Dreams

Quality of Information	Severity of Event		
	Death	Non-Death	
Complete	28 (43.7)	52 (65.0%)	80
Incomplete (includes no information)	36 (56.3)	28 (35.0%)	64
	64 (100%)	80 (100%)	144

Chi. sq. = 5.67, df = 1, Prob. = 0.017

Hypothesis 7: The negative correlation between quality of information and severity of event was statistically significant at the .05 level ($r = -.136$, $p = 0.048$, $n = 210$). This relationship was positive for apparitions ($r = 0.197$, $n = 29$), negative for extrasensory perceptions ($r = -.214$, $n = 37$), and negative and significant for paranormal dreams ($r = -0.222$, $p = 0.007$, $n = 144$; see Table 3: chi. sq. = 5.67, df = 1, $p = 0.017$). It appears that cognitive mechanisms within the dreaming processes prevent gaining information about death.

Hypothesis 8: First and second hand apparitional accounts contained incidence of all the "abnormal features of perception" listed by Emmons (1982): disappearance of image (161), insubstantial image (35), glowing image (86), white or black clothes (38), sickly or deformed image (11), partial body (26), abnormal walking or floating (13), abnormal sound (37). These features,

observed previously within British and Chinese collections, are probably universal and related to physiological processes.

Hypothesis 9: Although interpretations of anomalous experiences are shaped by one's culture, respondents portrayed situations, seemingly unassociated with social processes, which affected their beliefs. Rhetorical features within the accounts support this argument. Among the 1215 anomalous memorate accounts were 408 cases mentioning *belief* (often advocating a supernatural or religious explanation), 63 cases signifying *skepticism* (typically overcome by the belief generated by anomalous experience), and 51 cases noting *surprise* (indicating that events did not coincide with the experimenter's expectations). This evidence supports the experiential source theory.

Typical memorate forms illustrate the rhetorical quality of these accounts: (1) apparition — a family, claiming to be skeptical, simultaneously sees the apparition of a relative who they later discover died at the time of the experience; (2) paranormal dream — a woman dreamed that her uncle was killed by a lawn mower which rolled off the back of a trailer, cutting off his head, blood spilling on his son who was with him — two weeks later, these events occurred; (3) psychokinesis — a week after the grandmother's death, a family collectively perceived that window blinds flew up without being pulled, the doorbell rang repeatedly without cause, and many other objects moved without explanation; (4) waking ESP — a man felt an overwhelming sensation that his house was on fire, he rushed home to find that firemen were putting out the blaze, they explained to him that a bird probably carried a lit cigarette to its nest in the house's eave.

Although skeptics may argue that the attribution of spiritual forces to these perceptions is invalid, normal people, some of whom claim to be non-believers, make such connections. Among the 322 apparition narratives containing explanations, 82.0 percent referred to a deceased person. Of the 40 people providing explanations for their paranormal dreams, 45 percent referred to ESP, 30 percent to God or religion, and 15 percent to a deceased person. Among the 54 informants providing explanations for psychokinesis, 80 percent cited a deceased person (often referring to a recent death).

In traditional societies, supernatural beliefs associated with these experiences provide a foundation for spiritual healing. Individuals reporting frequent experiences often are thought to have magical abilities and, in hunter-gatherer societies, they tend to become shamans (McClenon 1994).

ALTERNATE EXPLANATIONS

The prevalent theories of religion have little explanatory power regarding the forms of anomalous perception that people report. Durkheim (1995) makes no direct prediction regarding the incidence of anomalous experience. Some scholars, working within associated paradigms, presume that social-psychological

processes determine the nature and incidence of *all* cognitive perceptions. Hufford (1982) refers to this orientation as the "cultural source" theory since anomalous experiences are portrayed as merely products of culture, fully explained by social psychological paradigms. Anomalous episodes are assumed to have little significance since religion is "manufactured" through rhetorical and social mechanisms (McCutcheon 1997). The cultural source theory is allied with a prevalent academic "culture of disbelief" which seeks to denigrate paranormal claims. This theory has not been formally developed but is supported by the stigma surrounding paranormal claims.

To the degree that hypotheses can be derived from cultural source theories, the orientation has been refuted. The recurring narrative features within anomalous reports from many localities suggest that many episodes have a biological basis (McClenon 1993, 1994). The supposition that "group effervescence"⁴ is a major factor in generating most anomalous experiences is not supported. Anomalous and religious experiences are reported more frequently by respondents when alone than in groups (Hay 1985). The only forms of experience frequently involving group processes are healings and occult practices.

Psychological theorists have placed emphasis on death, the power of nature, and resulting neuroses (Malinowski 1965). The present study found that less than half (40.9 percent) of paranormal dreams and waking ESP experiences pertained to death. Although death anxiety could be a factor in these cases, this explanation does not seem applicable to the many reports referring to trivial topics, unrelated to stress or neurosis. Some theories portray supernatural beliefs as resulting from deprivation, yet paranormal beliefs in the USA are not significantly correlated with social marginality (Emmons and Sobal 1981). The incidence of some forms of anomalous experience are positively correlated with education, income, and psychological health (Greeley 1975).

Guthrie (1993) theorizes that anthropomorphism is the basis for all religious sentiment and ideology. He hypothesizes that evolutionary processes lead to increasing anthropomorphism since identifying living beings has survival advantages while misidentification of non-living beings carries few penalties. He argues that anthropomorphism explains the labeling of many anomalous events since this reduces cognitive dissonance. In the present study, student coders evaluated only 1.9 percent of the accounts as reflecting anthropomorphic processes. This percentage is suspect since a skeptical assistant, coding a 200 case random sample of the entire collection, found a 38.1 percent incidence of anthropomorphism (agreement coefficient = .04). Evaluation of the anthropomorphism variable appears influenced by observer's preconceptions regarding

⁴ Durkheim (1995) argued that society has "all that is required to arouse the sensation of the divine" (p. 208) and stressed that periodic group meetings are required to maintain the special conditions required for religious sensations (p. 212). Experiences occurring in isolation are assumed to be reflections of original group sensations which "dissipate if left alone" (p. 212).

the paranormal. In any case, it does not appear that anthropomorphism explains the incidence of most forms of anomalous experience.

As an alternative to these orientations, McClenon (1997) provides a "ritual healing" theory explaining the origin of religion within an evolutionary framework. This theory coincides with many features revealed by the content analysis. Belief is a frequent theme within the narrative collection, particularly prevalent within healing accounts: 73 percent of coded comments in healing narratives and about 40 percent of apparition, paranormal dream, waking ESP, and PK coded comments refer to belief. Within the more rhetorically powerful healing narratives, the respondent suffers from a life-threatening disease documented by medical personnel. The person recovers after treatment by a spiritual healer. Evidence suggests that the efficacy of spiritual healing practices are based, in part, on hypnotic/placebo effects (McClenon 1996). The capacity to respond to ritual suggestion (perhaps coupled with anthropomorphism) increases one's probability of survival within societies practicing spiritual healing. Shamanism, a system that includes spiritual healing, appears to be the basis for all later religious forms; analysis of cross-cultural data suggests that shamanic healing was "present in all regions of the world at some time in their hunting and gathering past" (Winkelman 1992: 50).

Most anomalous perceptions, other than spiritual healing, fail to contribute directly to the survival of the experiencer. Anomalous episodes tended to induce anxiety and fear rather than comfort: informants provided 308 statements indicating fear or negative emotion and only 70 indicating positive emotion (12 of which were within healing narratives). This evidence suggests that evolutionary selection occurs as a result of spiritual (psychosomatic) healing rather than direct benefits derived from other forms of anomalous experience.

The ritual healing theory provides the following hypotheses: (1) hunter-gatherers have conducted shamanic healing practices for many millennia (more than 30,000 years), (2) these rituals provide greater survival benefits for those who are more hypnotizable, (3) hypnotizability has a genetic basis, and (4) hypnotizability is correlated with the propensity for anomalous and religious experience. As a result, ritual healing has led to the selection of genotypes contributing to modern forms of hypnotizability, as well as anomalous and religious experience. These episodes provide foundations for religious beliefs. This theory is subject to evaluation within the fields of anthropology, sociology and psychology of religion, hypnosis, folklore, psychoneuroimmunology, and medicine (McClenon 1997).

CONCLUSION

Nine hypotheses, associated with the experiential source theory, were derived from previous analysis of data gathered in Germany, Finland, USA,

Japan, and China. Content analysis of data from a North Carolina sample supports these hypotheses (although one relationship was evaluated as spurious).

Forms of experience (apparitions, paranormal dreams, waking ESP) revealed unique structures associated with emotional bonds, death, severity of event, conviction, and waking and sleeping states of consciousness. Paranormal dreams are associated with more complete information, less conviction, future events, and restricted information about death. Waking extrasensory perceptions grant less information, greater conviction, and greater likelihood of information about a present event. Apparitions tend not to provide paranormal information, but when they do, the facts tend to pertain to present events, produce moderate levels of conviction (based on amount of information), and are relatively complete. These findings suggest that certain forms of experience have cross-culturally consistent features, seemingly physiologically based.

Although prevalent social scientific orientations may be effective for explaining incidence of culturally specific forms of religious experience, they do not explain universal features within the anomalous memorates people tell each other when constructing folk religious traditions. Religious beliefs appear both socially manufactured and biologically based. Findings coincide with a ritual healing theory which provides a scenario for the origin of religion. This theory is empirically testable within the Darwinian paradigm.

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