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# The effects of ritual

By MICHAEL ARGYLE

## *Introduction*

By "ritual" is usually meant repeated and voluntary bodily acts which are symbolic; in the case of religious ritual they symbolise divine objects. Ritual includes the words which may accompany the bodily acts. Obsessional hand-washing is not a ritual in this sense, since it is not voluntary. Shaking hands on greeting is a ritual, but not a religious one.

There are different kinds of ritual, and there are several ways of classifying them. Here are some of the main kinds: (1) Rites of passage, where there is some change of status or relationship, as in marriage, graduation, and becoming an adult in primitive society. (2) Healing rituals, intended to produce changes of bodily state. (3) Worship, intended to strengthen relations with God. It may include sacrifices and prayer. Rituals may have further benefits for those involved, such as happiness, mental health, religious experiences or enhanced faith.

How can we study the effects of rituals? Orthodox social science requires carefully designed comparisons of numbers of individuals before and after ritual acts, or comparison of matched groups who have had different experiences. There are a number of research designs which do something like this. We shall report before-and-after studies of healing services. There are experiments on the effects of stressful life events, where religious coping has been found to be beneficial. Surveys of the reported triggers of religious experiences have found an effect of rituals. There are investigations using causal modelling to see the effect of ritual in a causal chain. In surveys and correlational studies it may be possible to interpret the results causally.

Anthropologists have written much about ritual but rarely carry out controlled studies. We shall report one on the conditions under which religious rituals are used.

## *Effects of ritual on social cohesion*

One of the most striking effects of ritual is the social cohesion of the group carrying out the ritual. Hayden (1987) found that ecstatic religious meetings are more common in societies where there is dangerous hunting or fishing, and it is important to hold groups of men together. "Masked monsters or spirits, flames and darkness, bullroarers, drumming, and the whole panoply of sensory effects insured total involvement and the forging of some of the closest emotional bonds the human race has known" (p. 86).

Victor Turner (1969) found the formation of very strong social bonds in groups of young men going through adult initiation rites in East Africa. At the height of the ritual he found the creation of an ideal state of society “where there is love, equality and harmony”, and where there are no property or status divisions, and people are “freed from the sins of selfish and hierarchical society”. They experienced this as an ecstatic and religious condition, which Turner called “*communitas*”.

I believe that religious rituals keep the state of *communitas* alive. The evidence for this is that church members are closer than the members of any other kinds of leisure group (Argyle, 1996). I found that church friends were often said to be closer than their other friends. In a large Australian survey, 24% of churchgoers said that their closest friends were members of their churches, while for Pentecostals the percentage was higher (Kaldor, 1994).

Why do religious rituals cause social bonding? I will offer two psychological explanations. The first uses our knowledge of non-verbal communication (NVC). We know that NVC produces more impact than words in expressing emotions and attitudes to other people (Argyle, 1988). In rituals there is a lot of NVC which is either identical or is closely coordinated. In both cases this may produce strong positive feelings within the group. The second explanation uses “social identity theory”, the theory that our self-image and self-esteem is partly based on the properties of groups to which we belong. Engaging in rituals involves many cues to belonging to the same group, singing hymns together, saying prayers, and the rest could create a strong sense of group belonging. Wearing the same costumes would be a particularly strong cue of this kind.

### *The effect of healing rituals (a) Physical health*

In a recent US national survey it was found that church is very good for health – the life expectancy of church-goers was no less than 7 years longer (Hummer et al 1999). However this was not all due to ritual, the main cause was better health-related behaviour – less drinking, smoking etc. Two other factors were the social support of church communities and the comfort and security given by religious belief.

There have been studies of healing services, using medical assessments before and after them. Glik (1986) studied 176 individuals who had been to charismatic and other healing groups, and Pattison et al (1973) studied 73. In both investigations most of those who went to healing services thought that their health and well-being had improved, and that they had been healed. However no change was found in their physical state. They had improved in “subjective health” only. They seem to have been defining their health in terms of wider considerations than the state of their bodies, and they simply felt better.

Perhaps the healing services were not strong enough. The “Toronto blessing” is a very highly charged charismatic form of service which started at the Vineyard church at Toronto airport. In a follow-up of 850 who went to it,

21% reported physical healing, and 78% inner or emotional healing (Poloma, 1996).

Prayer is also reported to work, at any rate for the individuals praying. Poloma and Pendleton (1991) found that 72% of their subjects believed in the power of prayer for healing, and 34% claimed they had experienced this themselves.

### *Healing (b) Mental health*

The Toronto Blessing study just cited found that 78% reported "inner or emotional healing". The way in which this may happen is through "religious coping". By coping is meant behaving or thinking in a way which helps avoid or reduce the effects of stress. Religious coping includes "collaborative coping" where God is taken as a partner in decisions, "benevolent reframing" in which negative events are seen in a positive way and as due to the will of God, and seeking support from lay or ordained members of the church. All of these three methods have been found to be successful. In an analysis of 130 studies of religious coping, 34% showed positive effects on depression, anxiety, etc. (Pargament, 1997).

There is evidence that the benefits of religion for mental health are mediated by ritual. McIntosh et al (1993) found that regular church attenders were less upset by the death of a child. Individuals who are high in intrinsic religiosity, who are more likely to be church attenders, have lower rates of depression and other signs of mental ill-health, as Batson et al (1993) found in a meta-analysis of 115 studies. Finally, the suicide rate is lower for church members (Bainbridge, 1997), though this may be due more to social support than to ritual.

### *Religious experience*

It used to be believed, following William James, that religious experiences were to be obtained in solitude. However surveys of when people have them have found that this is not the case. The most common triggers are listening to music (49% of those who have had an experience), prayer (48%), and attending church services (41%) (Greeley, 1975). Argyle and Hills (2000) studied the kind of religious experience which is commonly obtained in church. We found these had three factors, which we called transcendental, immanent and social, as shown in Table 1.

Which aspects of ritual are responsible? We compared these experiences with those reported by members of choirs and other musical groups. As Table 2 shows, the musical experiences were very similar to the church experiences, and were stronger on some scales, including such classical mystical scales as "timelessness" and "glimpsing another world".

*Table 1: Factor Analysis of the Religious Affect Scale*

Item	Item label	F <sub>1</sub> <sup>a</sup>	F <sub>2</sub>	F <sub>3</sub>
G19	contact with God	.82		
G25	being at peace with God	.80		
G12	feeling supported and helped	.74		
G11	feeling uplifted	.72		
G13	feeling loved	.72	.46	
G14	feeling "at home"	.72		
G03	refreshment	.68		
G07	obtaining guidance	.66		
G09	joy/elation	.65		
G05	positive feeling about life	.65		
G20	calmness	.62		.48
G16	excitement	.59		
G04	quieting of the mind	.57		.52
G18	enjoying company of others present		.81	
G22	being united with other people		.78	
G23	being part of a family		.75	
G06	opportunities to help others		.61	
G02	taking part in a shared performance		.61	
G17	enjoying familiar practices		.57	
G15	experiencing a unifying vision	.49	.49	
G01	timelessness			.78
G08	loss of sense of self			.66
G21	bodily well-being			.56
G24	being bathed in warmth and light		.49	.56
G10	glimpsing another world			.54
Cronbach's $\alpha$		.95	.95	.79
Variance explained		49.6%	7.0%	6.1%

All factor loadings  $\geq .45$  are shown.

<sup>a</sup> Factor labels: F<sub>1</sub>, immanent; F<sub>2</sub>, social; F<sub>3</sub>, transcendent.

Source: Argyle and Hills, 2000.

*Table 2: Differences in means for common items of musical and religious experience scales (members of both musical groups and churches)*

Item	Music scale		Religious scale		t
	Mean	SD	Mean	SD	
Being bathed in warmth and light	2.65	1.43	2.61	1.56	0.23
Bodily well-being	2.89	1.41	2.57	1.46	1.76
Enjoying company of others' present	3.43	1.16	3.48	1.11	-0.32
Excitement	3.52	1.27	2.57	1.41	4.80***
Feeling uplifted	4.30	0.86	3.91	1.00	2.54*
Glimpsing another world	3.13	1.53	3.00	1.57	0.60
Joy/elation	3.79	1.04	3.30	1.29	2.79**
Loss of sense of self	3.02	1.39	2.41	1.47	3.62***
Positive feelings about life	3.62	1.10	3.91	0.95	-2.09*
Taking part in a shared performance	4.02	1.00	3.20	1.35	3.88***
Timelessness	2.63	1.50	2.59	1.53	0.20

\* < 0.05; \*\* p < 0.01; \*\*\* p > 0.001.

Source: Hills and Argyle, 1998.

Actually being in a church building may be important. Masters and Houston (1966) report the effect of LSD in producing religious experiences. Of those given the drug in a religious building 83% reported a religious experience, compared with 32% of those in a non-religious setting. Another ritual which produces religious experiences is prayer. We have seen that it is one of the most common triggers. But there are different kinds of prayer, and the kind that produces religious experiences is "meditative prayer", that is spending time just feeling and being in the presence of God (Poloma and Pendleton, 1991).

What is the explanation of the effects of ritual on religious experience? Research on the effects of drugs on religious experience suggests that three factors are necessary to produce it, (1). physiological arousal of a certain kind, (2). cognitive input, for example from the words of prayers or sermons, and (3). being a religious person (Argyle, 2000). And as we saw earlier, being in a religious place makes a difference. We have seen that music by itself can produce experiences similar to religious ones. Music produces the right kind of physiological arousal, and ritual adds religious content, by bodily acts which symbolise religious ideas.

*Religious beliefs and attitudes*

The purpose of worship is to make those involved closer to God, sometimes to influence God. It follows that their religious beliefs and attitudes should be strengthened. There is some evidence that this happens, from studies of the religious socialisation of children. Garrison (1976) found that when children took part in church services, in churches where there was a lot of participation, they went to church more when at college later. Francis (1984) studied the causal path for religious attitudes at age 15-16. Church attendance was a strong predictor.

Another route may be through religious experiences. We have shown that rituals produce such experiences, and research on drug-induced experiences shows that they lead to enhanced beliefs (Pahnke, 1966).

A common feature of religious rituals is sacrifice, which has been widely practised for centuries. "Sacrifice as a religious act was part of the mental furniture of everyone in the ancient world, Jew, Christian and Pagan" (Hanson and Hanson, 1981, p. 107). However it has ceased to be part of our mental furniture, and the explanation of sacrifice is not agreed. It may be seen primarily as an attempt to seek favours or avoid punishment. It may discharge aggression and end the cycles of violence and revenge in society (Girard, 1972).

The explanation of the effect of ritual on belief could be through a familiar psychological process, the reduction of cognitive dissonance. When people have committed themselves publicly to a belief, for example by taking part in ritual, not holding the belief would be a source of cognitive dissonance, which can be reduced by holding the belief (Festinger, 1957).

*Changes of social status or relationships*

The apparent function of rites of passage is to ease individuals into new social positions as in marriage, graduation or becoming an adult. There is not much evidence on how far this is achieved. A field experiment was carried out on initiation rites to join a student club. College girls had to undergo an embarrassing experience in order to join a very dull club; their desire to belong was greater if the initiation was more severe, supposedly reducing their cognitive dissonance (Aronson and Mills, 1959). There are other interpretations of the results, but this is a notable attempt to show the effect of ritual.

Initiation rites into adulthood are common for boys in preliterate societies, and the boys may be subjected to painful and frightening ordeals and mutilation, such as circumcision. This may be intended to separate them from the world of women and prepare them for the manly world of war and hunting. Such rituals only take place in societies where there are organisations for war or hunting (Young, 1965).

In these and other rites of passage Van Gennep (1908) thought there were three phases. The initiates are brought to the event by family or friends (their previous group), and wearing a costume representing their previous state. In university gradu-

ations this would be their undergraduate gown for example. In the third and final phase they join the company of the group which they are joining, e.g. graduates, and put on a new costume symbolising their new status, e.g. as graduates. In the second, or "liminal" phase the initiates are neither one thing or the other, they are in the middle of the ritual, and it is this state that Turner (1969) thought had a religious quality.

There may be other benefits of rites of passage. Those for bereavement may integrate the bereaved into society, those for childbirth may reduce the anxiety associated with this event. Perhaps marriages last longer when the wedding takes place in church.

We do not have much hard evidence for the success of rites of passage. However these rites are so very widespread that it seems unlikely that they would have persisted if they did not work. Assuming that they do, what is the explanation? There are several likely factors. The strong and clear symbolism of changes of costume is one. There is a change of social identity caused by moving from one group to another. There is also the physiological arousal generated by loud music and other features of charismatic rituals.

### *Well-being*

There are several ways in which religious rituals may contribute to well-being.

*Happiness.* Those who go to church services experience a lot of joy at them, but the effect on enduring happiness is quite modest. Moberg and Taves (1965) carried out a study of 1,343 old people in Minnesota, and found that a measure of happiness was higher for those involved with churches, especially if they were single, very old or fully retired.

*Table 3: Scores on an index of adjustment, and church membership*

	<i>Church leaders</i>	<i>Other church members</i>	<i>No-church members</i>
Married	15	15	12
Widowed	15	11	7
Single	12	8	5
65-70	18	14	10
71-79	15	12	7
80+	13	8	6
Fully employed	18	18	17
Partly employed	16	16	13
Fully retired	15	12	7



Table 3: Scores on an index of adjustment, and church membership

	<i>Church leaders</i>	<i>Other church members</i>	<i>No-church members</i>
Health (self-rated)			
Excellent	17	14	13
Good	15	14	11
Fair	17	6	8
More active in religious organizations than in fifties	16	13	9
Less active	14	11	7

Source: Moberg and Taves (1965).

This suggests that the elderly benefit most from attending church services, especially if they are otherwise socially isolated. Larger-scale surveys have also found that happiness is enhanced by the social support of churches, but also by the relationship experienced with God, and the certainty given by firm beliefs (Pollner, 1989, Ellison, 1991).

We described the powerful benefits of church membership for physical health, but said it was mainly due to improved health-related behaviour. We reported the results for mental health, and concluded they were mainly due to social support from the church community.

Fear of death is a common source of anxiety, and it is alleviated by religion. Correlations have been found in many studies between low fear of death and intrinsic religiosity or similar measures. Swenson (1961) studied 210 fundamentalists over the age of 60, and found they were looking forward to death, saying for example "It will be wonderful". Those in poor health looked forward to it more.

*Marriage.* Most religions are in favour of stable and happy marriages. In fact the rate of divorce is considerably lower for those who belong to churches and those who are frequent attenders. Heaton and Goodman (1985) report the divorce rates for members of different American churches who had been high or low frequency attenders.

Table 4: Divorce rates by church and attendance

	<i>Catholic</i>		<i>Liberal Protestant</i>		<i>Conservative Protestant</i>		<i>Mormons</i>	
	<i>Attendance rate</i>							
	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>
Percentage divorced	13.3	30.4	24.0	32.3	20.3	37.4	12.7	23.9

Source: Hasten and Goodman (1985).

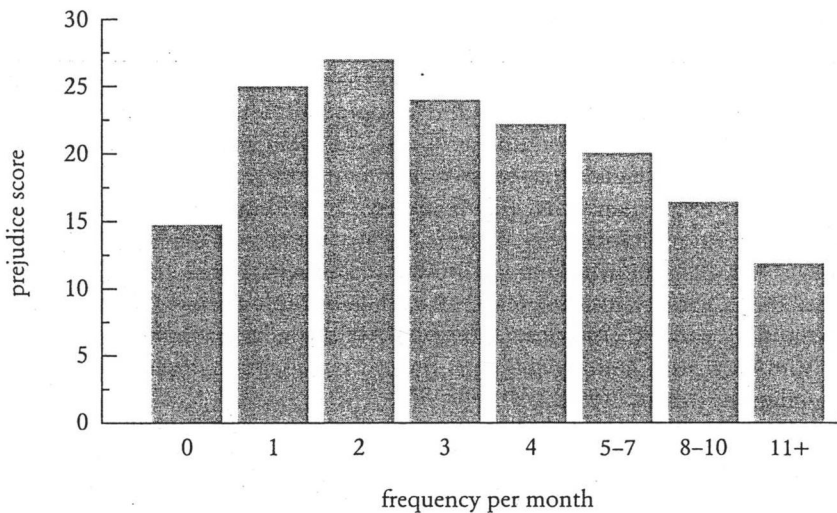
However couples have to go to the same churches to get these benefits. Mixed Catholic-Protestant marriages in the USA have twice the divorce rate of same-church couples, and the Mormon Catholic combination is the worst of all (Bahr, 1981). This suggests that sharing the same rituals may be a positive factor in marriage.

### *Benefits for society*

We have seen that ritual such as church attendance has benefits for those who perform them, in the form of increased happiness and better physical and mental health. Are there wider benefits for others, or for society as a whole?

*Social cohesion.* We have seen that members of ritual groups have great social cohesion, and that this is one of the main ways in which their well-being is enhanced. The benefits may affect whole regions: Stack (1983) found that suicide rates correlated with church membership rates for 214 American population areas. Suicide rate we know is reduced by social cohesion.

However, high in-group cohesion may be accompanied by negative attitudes to out-groups. There is more prejudice towards ethnic minority groups from church members than non members. This is sometimes found to be curvilinear, in that prejudice is less for very active members, as found by Struening(1963) in Holland.



Source: Struening, (1963).

*Fig. 1: Prejudice and church attendance*

The fact remain, however, that church members were more prejudiced than non-members. Part of the reason for this may be that church groups are often ho-

mogeneous in their social composition, and this is simply prejudice towards those whom they think may not share their beliefs or practices.

Rokeach (1960) found that members of American churches often rejected members of other churches, in that they said they were unlikely to make friends with, or marry, them, especially those from churches whose beliefs and practices were very different. This rejection of other churches is strongest for members of strict, fundamentalist churches (Hunsberger, 1995). A possible explanation is through "terror management theory". This is the theory that we have a deep-seated fear of death, and that when this fear is aroused we want to be surrounded by those who share our beliefs on these matters. This has been confirmed by experiments in which fear of death has been aroused experimentally (Greenberg et al, 1997).

*Giving to charity.* Church members in Britain and the USA give a lot more money away. About half of this is to churches, but about 70% of this is really "club fees" to churches themselves. However, when this has been allowed for, church members still give about twice as much to charity as non-members. Some of this is to church-related in-groups, for example Black American churches give a lot to charities outside their churches but mainly to Black organisations (Furnham and Argyle, 1998). Members of some churches are more generous than others: Mormons give most (5.5%), followed by fundamentalist Protestants, and Catholics least (0.9%). These differences can partly be explained by the wealth of members: Catholics in America are poorer than Protestants (Hoge and Yang, 1994).

*Helping and altruism.* It is a central part of Christianity and other religions to care for the poor, weak and sick. Does this happen? Surveys find that church members say they do more to help other people. Johnson et al's 56-item self-report scale on helping has been found to correlate .42 with intrinsic religiosity, which is related to church attendance (Chau, Johnson, et al, 1990). However, psychologists are suspicious that such results may reflect what people think they ought to do rather than what they really do. Behavioural measures of help and altruism are more convincing. Batson (1991) carried out experiments in which subjects had the opportunity to read to blind students, help a lonely girl, etc, and found that religious attitudes predicted such help. More serious help is taking part in voluntary work. In American surveys, 46% of the "highly spiritually committed" did such work among the poor, infirm or elderly, compared with 22% of non-religious (Myers, 1992).

In a British study, 44% said "It's part of my religion or philosophy of life to give help" (Lynn and Smith, 1991).

What is the explanation of these good works? We have seen that part of normal, "milder" religious experience is a feeling of union with, and concern for, other people, which is generated by the ritual, especially towards those taking part in the ritual. This may account for the higher level of empathy found in religious individuals. Watson et al (1984) found a positive correlation with intrinsic religiosity. Empathy produces concern for others' distress, and is a major source of help and altruism (Batson, 1991).

*Explanation of the effects of ritual**1. Enhancement or change of identity*

Social identity theory is an established doctrine in social psychology. The main idea is that individual identity and self-esteem depend partly on membership of groups. The clearest example here is rites of passage. When individuals graduate, they put on a new gown, which symbolises their new status, and become members of a new group: those who have graduated. Other rituals may confirm status or other aspects of identity, by giving people public roles to play, as in Army parades and church services. The author learned of a very ritualistic church, which required 63 people to play the different parts.

*2. Non-verbal communication*

We have found that expressing emotions or attitudes by facial expressions, tone of voice, or other non-verbal signals, has far more impact on others than equivalent messages in words (Argyle, 1988). It has also been found that such non-verbal expression of emotions affects the emotional state of the individual emitting them, by "facial feed-back" and allied processes (Laird, 1984). Non-verbal signals play a central part in religious rituals.

Some of these are:

costume, for status and roles in the ritual posture, for reverent attitudes  
 spatial position, to mark taboo or holy areas  
 tone of voice, for emotions  
 touching, for passing on influence  
 substances like wine (for blood), water (for purity) and oil (for healing)

While these signals convey messages from individuals, their effect is likely to be magnified when made by the whole group.

Turner (1977) thought that the power of ritual was due to its double symbolism, to bodily parts and acts, and to group membership. It was the first which he thought gave ritual its emotive force. I have suggested that different non-verbal signals do these two jobs, bodily acts performing the first, and costume the second, for example, though any act can acquire meaning as a sign of group membership.

*3. Music and arousal*

Music is widely used in church services and other religious rituals. Sometimes the music is very loud, as in the account of primitive religion given on p.-. In this case, the effect is primarily to increase the level of arousal. Sargant (1957) suggested that high levels of arousal produced in this way made those present very suggestible and capable of the uninhibited behaviour we described in charismatic

churches. Music also has a more specific effect of inducing particular emotions, and within a cultural group certain kinds of music are associated with feelings of religious awe and devotion. In the West, according to Starr, it was the music of Byrd and Bach which started our tradition of religious music (Storr, 1992).

### Conclusions

We have seen that rituals enhance the cohesion of groups, and this is one of the reasons for other benefits. The benefits of healing services are largely subjective; there is more effect on mental health. Religious experiences are generated by religious rituals, especially via music and prayer. There is some effect on well-being, and marriages are helped by shared ritual. Religious beliefs are enhanced by religious rituals. Rites of passage may help those undergoing changes of status, but there is little evidence. There are benefits for others too, for example through enhanced charitable giving and social work, but there is one negative effect, in that there may be divisions between different churches.

The explanation of these effects is partly in terms of changes of social identity, partly in the power of symbolic non-verbal communication and partly in the effects of music.

### Ritual-references

- Argyle, M. (1988) *Bodily Communication*, London: Routledge.
- Argyle, M. (2000) *Psychology and Religion*, London: Routledge.
- Argyle, M. and Hills, P. (2000) Religious experiences and their relationships with happiness and personality. *International Journal for the Psychology of Religion*, 10, 157-72.
- Aronson, E. and Mills, J. (1959) The effects of severity of initiation on liking for a group. *Journal of Abnormal and Social Psychology*, 59, 177-81.
- Bahr, H.M. (1981) Religious intermarriage and divorce in Utah and the mountain states. *Journal for the Scientific Study of Religion*, 20, 251-61.
- Bainbridge, W.S. (1997) *The Sociology of Religious Movements*, New York: Routledge.
- Batson, C.D. (1991) *The Altruism Question*, Hillsdale, NJ: Erlbaum.
- Batson, C.D., Schoenrade, P. and Ventis, W.L. (1993) *Religion and the Individual*, New York: Oxford University Press.
- Ellison, C.G. (1991) Religious involvement and subjective wellbeing. *Journal of Health and Social Behaviour*, 32, 80-99.
- Festinger, L. (1957) *A Theory of Cognitive Dissonance*, Stanford, CA: Stanford University Press.
- Francis, L.J. (1984) *Monitoring the Christian Development of the Child*, Abingdon: Culham College Institute.
- Furnham, A and Argyle, M. (1988) *The Psychology of Money*, London: Routledge.
- Garrison, C.E. (1976) The effect of participation in congregational structures on church attendance. *Review of Religious Research*, 18, 36-43.
- Girard, R. (1972) *Violence and the Sacred*, Baltimore, Md.: Johns Hopkins University Press.
- Glik, D.C. (1986) Psychosocial wellness among spiritual healing participants. *Social Science and Medicine*, 11, 579-86.
- Greeley, A.M. (1975) *The Sociology of the Paranormal*, London: Sage.
- Hanson, A. and Hanson, A. (1981) *Reasonable Belief*, Oxford: Oxford University Press.

- Hayden, B. (1987) Alliances and ritual ecstasy: human responses to resource stress. *Journal for the Scientific Study of Religion*, 26, 81-91.
- Heaton, T.B. and Goodman, K.L. (1985) Religion and family formation. *Review of Religious Research*, 26, 343-59.
- Hoge, D.R. and Yang, F. (1994) Determinants of religious giving in religious denominations. *Review of Religious Research*, 36, 123-48.
- Hood, R.W., Spilka, B., Hunsberger, B. and Gorsuch, R. (1996) *The Psychology of Religion: an Empirical Approach*, 2<sup>nd</sup> edn. New York: Guilford.
- Hummer, R.A., Rogers, R.G., Nam, C.B. and Ellison, C.G. (1999) Religious involvement and U.S. adult mortality. *Demography*, 36, 373-85.
- Hunsberger, B. (1995) Religion and prejudice: the role of religious fundamentalism, quest, and right-wing authoritarianism. *Journal of Social Issues*, 51, 113-29.
- Laird, J.D. (1984) Facial response and emotion. *Journal of Personality and Social Psychology*, 47, 909-37.
- Lynn, P. and Smith, J.D. (1991) *Voluntary Action Research*, London: Volunteer Centre.
- Masters, R.E.L. and Houston, J. (1966) *The Varieties of Psychedelic Experience*, London: Turnstone Books.
- McIntosh, D.N., Silver, R.C. and Wortman, C.B. (1993) Religion's role in adjusting to a negative event: coping with the loss of a child. *Journal of Personality and Social Psychology*, 65, 812-21.
- Moberg, D.O. and Taves, M.J. (1965) Church participation and adjustment in old age. in A.M. Rose and W.A. Peterson (eds) *Older People and their Social World*, (pp. 113-24). Philadelphia, PA: F.A. Davis.
- Myers, D.G. (1992) *The Pursuit of Happiness*, New York: William Morrow.
- Pahnke, W.H. (1966) Drugs and mysticism. *International Journal of Parapsychology*, 8, 295-314.
- Pargament, K.I. (1997) *The Psychology of Religion and Coping*, New York: Guilford Press.
- Pattison, E.M., Lapins, N.A., and Doerr, H.A. (1973) A study of personality and function. *Journal of Nervous and Mental Disease*, 157, 397-409.
- Pollner, M. (1989) Divine relations, social relations, and wellbeing. *Journal of Health and Social Behavior*, 30, 92-104.
- Poloma, M. (1996) *The Toronto Report*, Bradford-on-Avon: Terra Nova.
- Poloma, M.M. and Pendleton, B.F. (1991) *Exploring Neglected Dimensions of Religion in Quality of Life Research*, Lewiston, NY: Edwin Mellen Press.
- Rokeach, M. (1960) *The Open and Closed Mind*, New York: Basic Books.
- Sargant, W. (1957) *Battle for the Mind*, London: Heinemann.
- Stack, S. (1983) The effect of religious commitment on suicide: a cross-national analysis. *Journal of Health and Social Behavior*, 24, 362-74.
- Storr, A. (1992) *Music and the Mind*, London: HarperCollins.
- Struening, E.I. (1963) Anti-democratic attitudes in a Midwest university. In H.H. Remmers (ed) *Anti-Democratic Attitudes in American Schools* (pp. 210-58), Evanston, Ill.: Northwestern University Press.
- Swenson, W.M. (1961) Attitudes towards death in an aged population. *Journal of Gerontology*, 16, 49-52.
- Turner, V.W. (1969) *The Ritual Process*, London: Routledge and Kegan Paul.
- Van Gennep, A. (1908) *The Rites of Passage*, Chicago, Ill.: Chicago University Press.
- Watson, P.J., Hood, R.W., Morris, R.J. and Hall, J.R. (1984) Empathy, religious orientation, and social desirability. *Journal of Psychology*, 117, 211-16.
- Young, F.W. (1965) *Initiation Ceremonies: A Cross-Cultural Study of Status Dramatization*, New York: Bobbs-Merrill.
- Zuesse, F.M. (1987) Ritual. *Encyclopedia of Religion*, 12, 405-222.