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RELIGIOUS ORIENTATION AND FLOW

by

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Thesis

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Eastern Michigan University

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in

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ABSTRACT

This study explored the nature and extent of relationships between religious orientations, religious orthodoxy, and flow, which is an experience akin to “being in the zone” in sports. The three religious orientations examined were intrinsic religiosity, which involves shaping one’s life around religious beliefs and practices; extrinsic religiosity, which involves trying to gain rewards, such as social status, from religious participation; and quest, which involves seeking religious meaning as opposed to accepting traditional doctrines. Data analyses indicated that high scorers on extrinsic religiosity tended to have less intense flow experiences and that they tended to experience flow more often during public religious gatherings than during private prayer or meditation. A stepwise regression procedure found a predictive model for flow intensity consisting of religious orthodoxy and both intrinsic and extrinsic religious orientations.

Table of Contents

	Page
Acknowledgements	ii
Abstract	iii
Introduction	1
Flow: An Introduction	2
Previous Flow Research	3
The Origins and Theory of Flow	7
Correlates, Predictors, and Requirements of Flow	9
Religious Orientation	14
Conclusions and Research Goals	17
Hypotheses	18
Method	23
Participants	23
Measures	24
Religious Orientations	24
Other Religious Items	25
Flow	25
Procedures	26
Results	28
Discussion	33
References	42

Appendices	47
A. Research Questionnaire	48
B. Allport and Ross Religious Orientation Scale	55
C. 12-Item Quest Scale	56
D. Orthodoxy Scale.....	57
E. Additional Religious Items	58
F. Flow Questionnaire and Supplemental Flow Experience Clarification Questions	59
G. Informed Consent to Participate in Research	60

Introduction

Psychology has long been focused on problematic human behavior. However, relatively little research has centered on positive experiences and states. The newly emerging field of Positive Psychology attempts to garner the knowledge needed not only to ameliorate psychological disturbances but also to increase individuals' life satisfaction and happiness.

A key aspect of Positive Psychology is studies into positive consciousness states. Through detailed interviews with several large groups of individuals, Csikszentmihalyi (1975b) developed a theory that described the "flow" experience. This state, he reported, occurs when people are completely engrossed in an engaging activity that matches their levels of skills with a commensurate level of difficulty. Csikszentmihalyi (2000) detailed the chief characteristics as

(a) a clear sense of what has to be done moment by moment; (b) immediate feedback as to how well one is doing; (c) an intense concentration of attention; (d) a balance between opportunities for action (challenges) and capacity to act (skills); (e) exclusion of irrelevant content from consciousness; (f) a sense of control over the activity; (g) a distortion of sense of time—usually hours pass by in minutes; and (h) a feeling that the activity is intrinsically rewarding, or worth doing for its own sake. (p. 381)

Clearly, these criteria or descriptors are defined broadly enough to allow for many different flow experiences. This is demonstrated in Csikszentmihalyi's (1975b) original study, which reported similar flow events in a diverse population ranging from artists to climbers, and athletes to chess players.

Although numerous studies have examined flow and its potential causes or correlates, such as the types of events that seem to stimulate or facilitate flow (e.g., Privette & Bundrick, 1989), no studies have specifically examined the interplay of religious orientation (i.e., intrinsic, extrinsic, or quest) and flow experiences. Therefore, this study investigates whether such a relationship exists and, if so, what it looks like.

Flow: An Introduction

Flow was first labeled and described by M. Csikszentmihalyi in 1975. However, the concept is strikingly similar to many familiar psychological constructs. Privette's (1981) report on peak performance in athletics detailed criteria that sound remarkably similar to flow. She identified several factors including focus, absorption, and effortless actions. In fact, Privette saw the resemblance and reported that Csikszentmihalyi's (1975a) description of flow was "an elegant fit for the whole, graceful, and directed behavior athletes described as characteristic of peak performance in sports" (p. 55).

Further, the idea of a peak experience as described earlier by Maslow (1965) is congruent with the general description of a flow experience. However, the main difference seems to lie in magnitude and importance. As noted by Csikszentmihalyi (2000), "[flow] does not necessarily have the intensity of [peak experiences]" (p. 381). Privette and Bundrick (1991) clearly differentiated the two: "Peak experience is intense joy, a moment of highest happiness that stands out perceptually and cognitively among other experiences. . . . Flow is an intrinsically rewarding experience chosen for its own sake and often, but not necessarily, characterized by optimal performance or feeling responses" (p. 171). Further, they noted that flow was "fun," whereas peak experiences were more synonymous with the mystical and transcendental.

Such statements are interesting on a theoretical level, and their validity is bolstered by empirical data. Privette and Bundrick (1991) administered the Experience Questionnaire (see Privette, 1984) to individuals with the goal of determining the overlap of three seemingly related constructs: peak experience, peak performance, and flow. They found that peak experience was related to fulfillment, significance or meaning of an event, and spirituality, whereas peak performance was marked by full focus and awareness of self and personal power. Flow was most strongly related to different factors, including play, interacting with others, and activities “with built-in rules, motives, and goals” (p. 182). Therefore, the concepts are theoretically related, and, to a lesser extent, conceptually intertwined, but they do appear to be separate constructs with specific indicators and qualities. Finally, flow is also inherently similar to other psychological concepts, such as intrinsic motivation (see Deci & Ryan, 1985). In fact, a key characteristic of flow is the fact that flow-inducing performances are an end in and of themselves, leading to an intrinsically rewarding situation (Csikszentmihalyi, 1975b).

Previous Flow Research

Flow has been identified across a wide variety of events and circumstances. However, the majority of research studies, especially empirically-based, quantitative studies, have studied physical activity and athletics. There is only one study (Dillon & Tait, 2000) that examined both religion and flow, and it focused on the relationship between religion and flow solely within the field of athletics. For this study, two new instruments were developed: the Zone Test to measure flow as a trait and the Spirituality in Sports Test, which specifically measures religiosity/spirituality within sports. Consistent with Dillon and Tait’s hypothesis, the Zone Test was significantly positively

related with the Spirituality in Sports Test. Dillon and Tait found that spiritual people in sports also tended to experience more flow states. However, their study did not explore the role of religious orientations.

Young and Pain (1999) conducted a broad review of flow, or “being in the zone,” across sports. They found that such experiences are a “universal phenomenon” across sports and that the key characteristics of such states are remarkably stable throughout various arenas of athletic engagement. However, certain factors may mediate the occurrence of flow within these activities. For instance, Grove and Lewis (1996) found that individuals who displayed greater levels of hypnotic susceptibility were also more likely to report an increase in flow-like states during the course of an exercise routine.

Similarly, Lewis (1999), who specifically examined the experience of flow in elite cyclists, found that these athletes might enter a qualitatively different but similar zone to that seen in other sports. Specifically, the amount of pain and endurance required for such activities might lead to a sense of absorption and time compression/expansion, as well as a form of dissociation via hypnotic susceptibility. In addition, preperformance preparation might be linked to increases in flow. Catley and Duda (1997) studied golfers and reported that procedures such as “goal setting, negative thought stopping, [and] imagery” (p. 321) might lead to increases on flow measures following athletic engagement.

However, the experience of flow is not limited to sports-related activities. In fact, the original studies leading to the development of “flow theory” centered on a diverse sample of individuals, from rock climbers and composers to chess masters and people who danced to rock music (Csikszentmihalyi, 1975b). In his original work, Csikszentmihalyi found that the balance of skills and challenges could be described

graphically in terms of a linear relationship (see Figure 1), in which flow was represented by a band roughly surrounding the function $y = x$. The width of the band is representative of individual personality differences, and some individuals possess a theoretically wider band in which they are capable of experiencing flow.

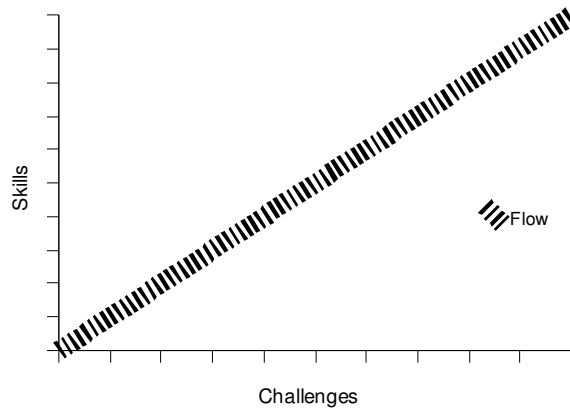


Figure 1. A theoretical graph of flow experiences and the balance between challenges and skills, adapted from Csikszentmihalyi (1975).

Brinthaup and Shin (2001) reported that flow also could be found in behaviors that are often thought of negatively, such as "cramming" for exams or papers in academic settings. Although the authors noted that such experiences might at first glance appear to be contradictory to flow (because of the perceived boredom of the material), they found that in a sample of college students, "crammers" reported greater levels of flow intensity during a simulated cramming situation than did noncrammers performing the same task. It is possible, the authors suggest, that the reason for this phenomenon lies in the key characteristic of flow experiences: the balance between challenges and skills.

As Csikszentmihalyi (1975b) stated, when presented with boredom, which is caused by activities that are too easy for individuals to feel that their skills are being adequately challenged, individuals can choose to increase the difficulty by several

different means. For example, a rock climber might take a new route to a familiar summit. Brinthaupt and Shin (2001) suggested that this might be what individual crammers are doing by procrastinating on important academic endeavors. By carefully putting off the tasks, the effective difficulty or challenge of those tasks are artificially increased because of increased time pressures. Therefore, they are able more easily to enter into a flow state by setting the challenge at a level equal to their skills. However, this situation presents a delicate challenge in and of itself: if the individual waits too long, the challenge (because of increased time pressure) may become too great for the individual's skills, causing anxiety rather than flow (see Figure 1).

Csikszentmihalyi (1975b, 1985) also examined the experience of flow by surgeons during medical procedures. He reported that a key aspect of the occurrence of such states in seemingly stressful, dangerous, and difficult circumstances is directly related to the intense challenges inherent in such actions. The difficult activities are, according to Csikszentmihalyi, the ones that will often bring the most exhilarating experiences of flow for surgeons. Further, he discarded the idea of prevailing extrinsic rewards' (e.g., salary, prestige) being the causal factor for the reported excitement displayed by surgeons, noting that all interviewees denied ever questioning their careers. In fact, all the surgeons indicated that they would never wish to be internists or psychiatrists, as they did not see these specialties as intrinsically rewarding. The depth of their flow experiences and their focus on the activity of surgery itself are so intense that, Csikszentmihalyi reported, surgeons could sometimes alter their perception of time in order to aid themselves in the completion of their tasks. For instance, in a crucial situation such as heart surgery, a surgeon may be able to tell the time passed since an

artery was clamped off to the minute, without the aid of a clock or watch. Conversely, a surgeon engaged in a long and grueling procedure can allow the flow to carry him/her through hours of tedious mental and physical labor in what seems to him/her a blink of an eye.

Yet, Csikszentmihalyi (1985) also noted that common flow experiences, such as those seen in intense surgical environments, could be particularly dangerous for individual. He reported that several surgeons interviewed for the study described the experiences with a near-drug-like connotation (e.g., “like taking narcotics”) (p. 495). Therefore, the constant search for a new challenge to meet ever-evolving skill sets can lead to an existence solely focused on finding flow.

When no sufficient challenges can be found to balance out the skills, individuals can sometimes “self-destruct.” As noted by Csikszentmihalyi (1985), “Many chess champions have been known to suddenly go to pieces once they reached the pinnacle and were deprived of the accustomed competition. The same fate has overtaken climbers who had mastered the most difficult ascents” (p. 495). In essence, the pursuit of positive consciousness experiences can bring with it a dangerous consequence of success: Perfection may ultimately lead to the inability to experience the desired emotional and consciousness states. However, the number of individuals who actually reach a level of skill so high that challenges no longer exist is likely very small.

The Origins and Theory of Flow

Given the demonstration of flow in diverse environments, the question becomes one of genesis: Why, or how, does flow occur? Numerous scholars have attempted to address this issue. Several of flow’s leading researchers (Csikszentmihalyi & Massimini,

1985; Massimini, Csikszentmihalyi, & Fave, 1988) proposed a form of “bio-cultural” evolution as the developmental key to understanding flow. This theory proposes three forms of human motivation corresponding to evolutionary steps. First, there are biological or physiological drives (i.e., instincts) that motivate organisms to act out specific actions, usually aimed at species perpetuation (e.g., feeding, reproducing). Second, the development of formal society brings with it cultural expectations or mores that serve to structure individual actions for the betterment of the whole community. Consciousness evolved in concert with these biological and cultural rules and brought with it the development of an intrinsically motivated state in which the consciousness or self seeks out experiences for the enjoyment of those events themselves—in essence, flow. Further, they contended that such states occur when there is a balance between social and physiological motivations or, as explained above, when challenges (external or culturally based aspects) are equal to an individual’s skills (internal or biologically based aspects).

Lubinski and Benbow (2000) elaborated on a similar but slightly different explanation, arguing that flow may be the result of an individual’s experiencing what is described as “effectance motivation,” or motivation resulting from the perception that he/she is “having an instrumental effect on the environment” (p. 146). Therefore, the reported intrinsic motivation (as in Csikszentmihalyi’s descriptions) associated with flow experiences may actually be a drive to perceptibly change the environment through individual action, leading to increases in perceived self-efficacy.

Other theories have focused on attention-related causes (e.g., Krug, 1999). The basis of this position lies in a quadrant-based model of attention in which polar attributes

on a continuum intersect orthogonally, like axes on a Cartesian graph. Krug labeled these factors “external/internal” and “broad/narrow.” Flow is posited to occur within the external half of the system, and the individual’s attention “flows” from a broad to a narrow focus, as is required by the activity for successful performance. Further, the actual flow state lies outside of the theoretical coordinate limits, and prolonged, focused attention in the separate quadrants results in increased awareness of cues outside the system. As Krug explained, “Immersion does not necessarily mean that the individual’s attention will never shift from quadrant to quadrant” but instead means that “the frequency of shifting has decreased” (para #12).

Marr (2001) attempted to explicate a “biobehavioral” theory of flow by shifting away from the often metaphorical or unclear constructs used to refer to such experiences in favor of behavioral and physiological or neurological explanations. He postulated that the stimulation of middle-brain structures, like the thalamus or amygdala, may be linked to the flow experiences. Marr then drew in elements of behavioral flow measurement to complete his model, proposing that the integration of these theories actually allows for parsimonious descriptions of the varied aspects of flow.

Correlates, Predictors, and Requirements of Flow

Other researchers have focused on what variables, traits, or environmental contingencies may play roles in producing or increasing the intensity or frequency of flow experiences. Privette and Bundrick (1989) found that the most commonly reported triggering activity for flow experiences was a sport or another physical activity. However, they reported that the type of activity seems to have an “effect on experiential correlates of these events, but [that] activity is not a primary definitional aspect” (p. 305).

In essence, Privette and Bundrick were arguing that psychological experiences (e.g., flow, peak performance) are defined by the characteristics that constitute these events (e.g., perceptions, significance of the event, etc.) more than they are defined by the type of activity itself.

By factor analyzing an instrument developed by Privette (1984; see also Privette & Bundrick, 1987), referred to as the Experience Questionnaire, Privette and Bundrick (1991) defined eight factors and through subsequent analyses determined that the order of importance for flow was as follows: play, interacting with others, and built-in rules and guidelines (i.e., ability for the experience to provide immediate feedback); individuals tended also to place some level of importance on awareness of self and full focus on the activity.

Jackson, Kimiecik, Ford, and Marsh (1998) recently examined the correlates of flow in athletic events. They found that the strongest associated trait was a perception of personal athletic ability. Further, intrinsic motivation and trait anxiety also were indicated. Their analyses found that a rating of challenges was unrelated to flow states, suggesting, according to Jackson et al., that the *perception* of skills is more crucial to the balancing of challenges and skill sets than an appraisal of task difficulty. However, they noted that further examination of this postulate is required.

The perception of skills also related significantly to key flow variables, such as “clear goals, unambiguous feedback, control, and concentration” (Jackson et al., 1998, p. 374). This is important given that an individual’s view of his/her own skills allows him/her to focus intently on the task at hand by eliminating the threat of anxiety that, in

flow theory, occurs when challenges outweigh skills. The converse, that is, when skills are more powerful than challenges, produces the equally distressing emotion *boredom*.

Csikszentmihalyi (1975b) found that flow was significantly related to age, sex, father's occupation, and academic degree. In general, individuals who are older and female, come from a family in which the father had a professional occupation, and who have degrees from institutes of higher education are more likely to experience flow. A tentative argument was made for higher socioeconomic status's (SES) being related to more flow experiences. This description links remarkably well to the hierarchy of needs hypothesis presented by Maslow (1965). As individuals are able to fulfill basic needs, they become increasingly able to seek out more abstract and, perhaps, intrinsically rewarding pursuits. Further, fulfillment of basic needs theoretically allows an individual to pursue careers that also allow for enjoyment and attainable challenges.

Mitchell (1988) examined the role of SES and sociological variables in mediating flow experiences. From a social view, he noted that blue-collar workers tend to experience a sense of anomie where their skills are never adequate to overcome the mounting difficulties associated with "making ends meet" and performing well at one's job. They receive external rewards, both in the form of wages and in the promise of religious rewards for diligent work (i.e., the Puritan view of religious salvation). However, their lives and their work provide no real opportunities for creativity or intrinsic enjoyment in very hierarchically organized businesses. In their free time, they tend to seek out "play" activities that are mindless and escapist in nature (e.g., gambling, drinking, watching sports).

Conversely, Mitchell (1988) argued that the professional community tends to experience a sense of alienation, or boredom, from continually being presented with challenges that are routine and do not involve creative engagement. In this sense, the individuals are overprepared for their careers and thus do not see the day-to-day activities involved as intrinsically motivating. Although they do receive extrinsic rewards, these do not necessarily provide long-lasting fulfillment, so professionals tend to seek out “recreation” activities that provide intense challenges, such as rock climbing, chess, and extreme sports or exercising. Therefore, in both situations—*anomie* and alienation—the cause, according to Mitchell, is partly the lack of creative engagement within daily affairs. Jobs and social life have been structured to provide utilitarian goals and extrinsic rewards without heeding the need for intrinsic motivation. Play and recreation are respites seen as separate from serious work.

Csikszentmihalyi and LeFevre (1989) noted that contrary to popular belief, flow-like experiences are more likely to occur during work situations than in leisure tasks. Flow tends to be seen as especially enjoyable and rewarding, and yet these experiences are not synonymous with relaxation *per se*. Indeed, relaxation was distinctly associated with leisure-based activities. Therefore, a key to understanding the experience of flow may be in distinguishing it from the mindless enjoyment of “relaxation” and instead casting it in the light of enjoyable completion of a challenging task.

Further, Western society holds rational thought and logic in high regard, but such an attitude can actually hinder flow. The overdevelopment of critical-mindedness can result in an individual’s overanalyzing situations without allowing the immediate feedback and underlying nature of the experience to guide the activity. In addition,

Mitchell (1988) as well as Csikszentmihalyi (1997) noted that a form of disenchantment could hinder the experience of flow. Individuals who continually are drained mentally and physically and without any intrinsically motivating activities, become unable to produce the requisite *activation energy* to begin experiencing such events. They understand that rock climbing or a game of chess or learning to play music would probably be more rewarding and in the long run more enjoyable than sitting down to watch television or surf the Internet, but their physical and mental exhaustion precludes such engagement. As Csikszentmihalyi and LeFevre (1989) noted

It could be argued that the pattern we have described simply shows that people need to recuperate from the intensity of work in low-intensity, free-time activities characterized by relaxation, even though most of these are non-flow activities that are unsatisfying, uncreative, and so on. This would explain why people prefer to watch TV, try to sleep, or in general vegetate at home, even though they do not enjoy doing these things. Perhaps they are so exhausted from the stimulation at work that they lack the energy to enjoy free time. (p. 821)

However, Csikszentmihalyi and LeFevre also noted that in other societies throughout the world, leisure time, even when following long periods of work in intense environments (e.g., farmers in difficult environments), is often spent engaging in productive and creative tasks (e.g., carving, weaving, music). Therefore, the authors argue that although exhaustion may indeed play a role, it is unlikely that this is the sole cause for lack of flow-like engagement. Instead, it is possible that personality factors and social constraints have limited individuals' leisure repertoires or preferences in many industrialized western societies where importance is placed on "vegging out" and

watching TV and other media. Therefore, two possible solutions for this predicament are presented. First, quality of life could be improved by educating individuals on the negative aspects of nonengaging leisure pursuits. Second, people could be allowed to discover that work can indeed be enjoyable, negating the longstanding bias against feeling engaged and excited about what are commonly perceived to be obligatory careers and daily tasks at the grinding wheel.

A key to motivating individuals to pursue engaging work and play may lie in the novelty of such tasks. For instance, Csikszentmihalyi (1975b) noted that novel activities are more likely to produce flow. The newness of these experiences provides original challenges and stimulates interest in the activity, leading to focused pursuit of the experience and thus leading to increased experience of flow. Csikszentmihalyi also stressed further the need for unambiguous feedback during flow-producing activities. The reason for such a requirement is that having easily understandable feedback mitigates the need for the self, or ego, to intervene and process the situation. Without the ego, the self can become diffused across the internal and external dimensions, resulting in the paradoxical loss of self-consciousness and yet intense presence of the self within the activity.

Within any flow experience is also the threat of danger, either real, physical risks or more abstract psychological ones (Csikszentmihalyi, 1975b). For instance, in rock climbing, error can mean death or severe injury. However, in a chess match, failure may instead mean loss of self-esteem. In either case, Csikszentmihalyi argued, the successful accomplishment of the task is not an extrinsic reward but a form of feedback demonstrating to the individual that he/she has mastered the activity.

Religious Orientation

The psychology of religion has examined the issue of how individuals approach religion for some time, especially since the work of Allport and Ross (1967) helped to conceptualize two religious orientations: intrinsic and extrinsic. The essential distinction between the two orientations lies in the way individuals approach religion and in what light they view their religiosity. The extrinsic, or means, orientation describes a pattern of religious involvement marked by an individual's interest in gaining something from religious participation. Religion thus becomes a tool for the achievement of goals, such as social contact or the improvement of one's financial situation. Further, the values of a faith may be utilized for specific purposes, such as the promotion of an individual's own beliefs or worldview through the strengthened religious justification.

The intrinsic religious orientation is linked to seeing religion as an end in and of itself. Individuals who score high on this religious orientation tend to shape their other life events around their religiosity. These individuals are comfortable with their beliefs and are not motivated to bend their religion to fit or justify their actions; instead, they model their actions on religious doctrines and teachings. In a colloquial sense, extrinsics tend to view God (or their higher spiritual power) as being on their side, whereas intrinsics are more apt to see themselves as being on God's (or their higher spiritual power's) side. In different words, "the extrinsically motivated individual *uses* his religion, [and] the intrinsically motivated *lives* his" (Allport & Ross, 1967, p. 434).

Initially Allport believed that the two were the ends of a single continuum, but analysis by Feagin (1964) showed that the two were nearly unrelated factors. This discovery led to the creation of several different scales of the two orientations. The most

frequently used scale has been the Allport and Ross (1967) Religious Orientation Scale, which measures both the extrinsic and intrinsic religious orientations. Allport and Ross noted that some individuals tended to be aberrant in their scores: they either scored high on both scales or low on both scales. The common terms for such individuals are the *indiscriminately proreligious* and the *indiscriminately antireligious*, respectively.

A third type of religious orientation was described more recently by Batson and Ventis (1982) and Batson and Schoenrade (1991a): the quest orientation. Batson and Ventis (1982) explained the orientation as

an approach that involves honestly facing existential questions in all their complexity, while resisting clear-cut, pat answers. An individual who approaches religion in this way recognizes that he or she does not know, and probably never will know, the final truth about such matters. But still the questions are deemed important, and however tentative and subject to changes, answers are sought.

There may not be a clear belief in a transcendent reality, but there is a transcendent, religious dimension to the individual's life. We shall call this open-ended, questioning orientation *religion as a quest*. (p. 149)

In essence, the individual who is motivated by a quest for religious meaning tends not to accept dogmatic beliefs or values. Instead, this individual is likely to be motivated by the search itself, finding that religion is not necessarily even about an end but that the means of believing provide some purpose in themselves.

In order to measure this new religious factor, Batson and Ventis (1982) developed a six-item scale that looked at what they originally termed *interactional* religiosity. However, the shorter and perhaps more descriptive term *quest* replaced this in later

research. In order to address reliability concerns, Batson and Schoenrade (1991b) developed a longer and more reliable 12-item instrument that contained three subscales measuring “readiness to face existential questions,” “religious doubt,” and “openness to change” (p. 436). Support for this three-factor view of the quest orientation also was reported by McHoskey et al. (1999), who found that quest tended to be positively related to relativism and negatively related to nihilism. The authors noted that these findings are generally consistent with the Batson and Ventis (1982) view of quest given that relativism—and quest—are active approaches to existential concerns, whereas nihilism is a passive approach to the same phenomenon.

Batson and Ventis (1982) were careful to note that their three-dimensional view of religious orientation is not restricted to typologies or discrete distinctions. Instead, their measures and their conceptualization look at how each individual rates on each factor. They noted that hypothetical examinations could not be made for distinctions between quest people and intrinsic people, per se. Instead, individuals are best represented by their profiles on all of the religious orientations. In this context, the researchers noted that the quest orientation is likely to be related to cognitive complexity and flexibility when dealing with issues such as existential crises. Conversely, they argued that the intrinsic orientation should tend to be related more to cognitive rigidity and dogmatic belief given the definition of this dimension as a confirmed and comfortable belief in a specific religious perspective.

Conclusions and Research Goals

The key to flow appears to be the balance of challenges and skills for an individual in a given event. However, a key interactional variable for such an experience

is the orientation toward that event: the event must be pursued for intrinsically motivated reasons. Even in situations that do provide substantial extrinsic rewards (e.g., surgery as a profession), the chief motivation reported by interviewees from these areas is intrinsic in nature; that is, they want to engage in the activity for the enjoyment derived simply from performing the behavior.

Religious behavior is also dependent on differentiations in orientation. High scores on the intrinsic religious orientation are associated with rigid and dogmatic, but secure, religious beliefs. Individuals who are predominantly intrinsically motivated are likely to see religion as an end in and of itself and tend to shape their lives around this belief system. Conversely, the extrinsic religious orientation involves less rigid belief and is descriptive of a tendency to use religion as a means for accomplishing goals outside of the religious structure, for example, networking for a business or getting a good deal on an investment from a fellow church member. An alternative to both of these dimensions is the quest religious orientation. The quest orientation is descriptive of religious seeking and failure to accept on faith simple, direct explanations of existential dilemmas. Individuals who are high scorers on the quest orientation will generally be open to new experiences and more flexible in their cognitive examination of religious or existential problems.

Hypotheses

Given these definitions and theoretical formulations, six key hypotheses follow: H_1 – Quest religious orientation and flow are significantly positively related; H_2 – Extrinsic religious motivation is negatively correlated with flow; and H_3 – Higher levels of SES are positively related with level and frequency of flow and with scores on the

measure of quest religious orientation. Two hypotheses relate specifically to the occurrence of flow in different events, as these events would theoretically relate to the religious orientations: H_4 – For general/everyday activities (e.g., work, school, sports/play, and hobbies), quest orientation is more positively related to flow scores than is either intrinsic or extrinsic orientation; and H_5 – For religious/spiritual activities, intrinsic orientation is more positively related to flow scores than is either quest or extrinsic orientation. Last, H_6 – Quest orientation is associated with a greater reported overall frequency of flow experiences than is either intrinsic or extrinsic orientation.

The first hypothesis draws on the definitions of the individual religious orientations and the theoretical nature of flow. Quest orientation is signified by openness to experiences and a constant search for meaning even given the lack of any viable truths. In essence, the activities that describe the quest orientation—searching and finding meaning in the search itself—are intrinsic in nature. The intrinsic nature of the quest, combined with complex cognitive processing of existential problems and a general openness to experience, suggests that a high score on quest orientation is associated with similar approaches to difficult events in other areas of the individual's life. If this style of motivation is brought to bear in work or leisure events, it is logical that such individuals would also experience flow more often and more intensely.

The second hypothesis also draws on the definitions of the religious orientations. Extrinsic religious orientation is associated with an extrinsic motivation for religious participation. If such a view were carried over to work or leisure activities, we would expect high scorers on extrinsic motivation to be generally less successful in experiencing flow because of the fact that such individuals tend to look for the rewards garnered from

activities instead of appreciating the pursuit of the activity itself. A negative relationship is hypothesized because there tends to be a significant negative correlation between scores on intrinsic and extrinsic scales although the relationship is small (Gorsuch & Venable, 1983). Therefore, as a person identifies more with the extrinsic orientation, he/she tends to be decreasingly intrinsic and thus searches increasingly for external, measurable rewards as opposed to autotelic rewards. In essence, as the level of extrinsic orientation rises, the level of intrinsic motivation should decrease, leading to fewer instances of flow experiences.

The third hypothesis simply stems from the fact that being raised with an elevated SES allows individuals the means and time to engage in possibly flow-inducing behaviors. This was suggested by Csikszentmihalyi (1997), who noted that a certain level of activation energy appears to be necessary for an individual to engage in the process of flow seeking. Following this contention and drawing on some of Maslow's (1965) theorizing on the hierarchy of needs, it would be concluded that when basic needs are readily satisfied and one does not need to exhaust or overwork oneself in the pursuit of basic needs and safety, the opportunity for seeking positive consciousness states (i.e., flow) is allowed. Specifically, as individuals are situated in more comfortable environments while growing up or in their current living situation, they should have greater activation energy available for pursuing intrinsically rewarding activities versus the escapist-type activities often pursued when one is drained mentally and physically, a state that presumably stems in part from workplace and economics (Mitchell, 1988). Further, education, which is also linked to SES, may play a role in motivating intrinsic activities.

The second part of the third hypothesis, concerning the relationship between quest orientation and SES, is largely driven by the observation that more affluent families and individuals tend to be more flexible in religious attitudes or spirituality. Further, as educational level increases, there also tends to be a questioning of traditional religious values, which theoretically would be observable through measures of religious quest.

The fourth and fifth hypotheses derive from the characteristics of the activity/event groupings and the descriptors associated with each individual religious orientation. As quest-oriented individuals tend to be open to new experiences, skeptical, and willing to engage in new endeavors, it would be logical that they would likely be more willing to enter into possible flow-inducing activities in their daily lives, in contrast with (a) intrinsically motivated individuals, who tend to view all actions and activities through the lens of religion, which may hinder the experience of flow and loss of self, and (b) extrinsically motivated people, who tend to seek the extrinsic rewards for engaging in religious activities. If the pattern of religious engagement holds for how individuals act in their daily schedules, it would logically follow that high scorers on the quest orientations would report greater flow in everyday-type events (e.g., work, school, sport/play, hobbies), whereas highly intrinsically motivated individuals would tend to find flow more often than individuals in the other groups in religious-based events (e.g., praying, religious service, etc.).

Finally, the sixth hypothesis is related to the fourth and the fifth in that on the measure of overall frequency of flow experience it is likely that everyday-type events would predominate in an individual's regular schedule. If, as suggested by the fourth hypothesis, high quest scorers have flow more often in such events, then it would follow

that they also have an overall greater frequency of flow experiences. Although more traditionally religious people (i.e., high intrinsic or extrinsic scorers) may find flow more often in structured religious endeavors or in situations that permit religious interpretation or engagement, it is likely that these events would occur less often than, for instance, going to work or writing a paper. Finally, given the theoretical basis for flow, including the theories described by Mitchell (1988) and Csikszentmihalyi and LeFevre (1989), the relationships between flow and several other variables, including gender and educational level, were examined for possible findings pertaining to predictors or correlates of flow experiences.

Method

Participants

A convenience sample composed of students from every level of the psychology curriculum ($N = 171$) at a Midwestern university participated in the study after having given consent. The researcher recruited participants by asking for research volunteers from undergraduate and graduate courses. Both in-class and extracurricular administrations of the questionnaire were provided depending on each professor's discretion and the availability of class time. Further, some individuals were drawn from both the university community (e.g., professors, staff) and from the larger community (e.g., acquaintances or associates of the primary researcher). Of the total sample ($N = 171$), approximately 10 individuals were either faculty/staff or community-based participants.

Their mean age was 24.17 years with a *SD* of 6.53. The gender and racial percentages in the sample were found to be representative of the larger student population, with a gender ratio of 31.0% men to 68.4% women (one person did not indicate gender) and a racial/ethnic identity of 73.1% European American, 14.6% African American, 2.9% Hispanic American, 2.9% Asian American, 0.6% Native American, and 2.9% Other (2.9% did not indicate race/ethnicity). Religious identification was 17.5% Catholic, 16.4% Protestant (constituting Lutheran/Methodist/Presbyterian), 11.7% Evangelical/Baptist/Southern Baptist/Assembly of God, 17.5% Non-denominational Christian, 0.6% Jewish, 2.3% Islamic, 1.8% Pagan/Wiccan, 1.8% Buddhist/Hindu, 11.7% Agnostic/Atheist, 7.0% No religion/None, and 4.7% Other/Spiritual (7.0% left the question blank).

Measures

The questionnaire consisted of (a) scales measuring religious orientation (i.e., extrinsic, intrinsic, and quest) and flow; (b) other religious items, including a brief scale measuring religious orthodoxy; (c) brief descriptions of memories of flow experiences, questions about these memories, and classification of the events recalled into participant-based activity groups, such as work, school, play, etc.; and (d) demographic information.

Religious orientations. One of the most often used and referenced measures of religious orientation in the psychology of religion is the Allport and Ross (1967) Religious Orientation Scale. The scale consists of 20 items divided into two subscales, intrinsic and extrinsic (see Appendix B for the complete instrument). The intrinsic scale has 9 items, whereas while the extrinsic has 11. The questions were answered using a 5-point Likert scale anchored by *Strongly Disagree* and *Strongly Agree*. The Religious Orientation Scale has demonstrated good psychometric properties, with high internal consistency for both subscales (Hill & Hood, 1999). Hill and Hood noted that the intrinsic subscale has been found to be more internally consistent than the extrinsic, with $\alpha \geq .80$ and $\alpha \geq .70$, respectively. Further, each scale has been found to be generally valid although, as with reliability, the intrinsic scale tends to perform more strongly given the “relatively high internal consistency and breadth of item content” (Hill & Hood, p.148).

The 12-item, revised Quest Scale developed by Batson and Schoenrade (1991b; Appendix C) was used to measure quest orientation, and it also utilized a 5-point Likert scale. The scale contains three subscales measuring “readiness to face existential questions without reducing their complexity,” “self-criticism and perception of religious

doubt as positive,” and “openness to change” (p. 436). Internal consistency reliability for the instrument is good, and an alpha coefficient of .78 has been reported. Further, they found that the construct validity of the quest orientation was supported by the negative correlation between the quest scores and measures of orthodoxy and religious rigidity (Batson & Schoenrade, 1991a).

Other religious items. Religious orthodoxy was measured with the Orthodoxy Scale of Funk’s Survey of Attitudes toward Religion and Philosophy of Life (Hill & Hood, 1999; see Appendix D). Religious orthodoxy is generally considered to be “the tendency to accept the teachings of religious authorities, and conform to prescribed religious practices” (Hill & Hood, p. 303). The Orthodoxy Scale is an eight-item scale using a Likert-type response format. Test-retest reliability for the Orthodoxy Scale over a three-week period was very high (.95), whereas the validity of the scale was limited to face validity. Additional items independent of previously developed scales were also included in order to assess for specific areas of religious or spiritual belief not addressed in other instruments (see Appendix E).

Flow. The Flow Questionnaire (Csikszentmihalyi, 1975b, 1982; see also Han, 1988) is a set of three quotations, taken from the original interviews with flow experiencers, that describe the chief characteristics of flow. The participants were asked to indicate via a yes/no answer whether they had ever experienced something similar to the event these three quotes illustrated and if they had, to write a brief description of that event (1-2 sentences). Then, as in Fave and Massimini (1988), participants answered a set of 12 questions about the flow experience they recalled, using a 5-point, Likert-type scale. The questions described various aspects of the proposed flow model (e.g., “I feel I

can handle the demands of the situation.”). Certain items were reverse scored (e.g., “I get anxious.”) in order to minimize response bias. The Flow Questionnaire and the 12 dimensions of flow are included in Appendix F.

It is important to note that measuring a consciousness state like flow carries inherent difficulty because individuals are often unaware of these states or are unable to retrospectively examine them for concrete details of the experience. In addition, the act of observing or measuring such variables—a form of observer effect—could itself contribute to overall error. Further, quantifying such an experience is also problematic, as the process results in a distilling of the qualitative information often utilized in flow research. Certain methods, such as the Experience Sampling Method developed by Csikszentmihalyi and Larson (1987), allow for more detailed information to be gathered (e.g., the Experience Sampling Method requires that individuals carry a pager and respond at random times to a questionnaire measuring their current consciousness and emotional state, but such methodology is immensely costly and time consuming or inappropriate. For the purposes of the current study, which focused on a preliminary investigation of religion and flow, more general quantitative measures were preferred.

Procedures

Participants were recruited and given an informed consent form (see Appendix G) before they were allowed to complete the questionnaire. As there was no need to know the names of the participants, a signed consent form was not used. When students indicated consent, they were asked to complete the questionnaire in class or during other data collection sessions. Completion of the questionnaire took approximately 20-30 minutes. If the instructor approved, participants received extra credit in exchange for

completion of the questionnaire and signed a log indicating participation. The professor received the log with participant's names.

Results

SPSS 12.0 was used to calculate all statistics. For each person, the flow memories were categorized into work, play, sports, etc., and intrinsic, extrinsic, quest, and flow scores were calculated. Using this list of categories, a second independent rater coded the flow memories of 20 random participants, yielding very high Pearson product-moment bivariate correlations with the principle investigator's ratings for the first, second, third, and fourth memories recalled: $r(19) = .96, p < .01$; $r(16) = 1.00, p < .01$; $r(10) = .92, p < .01$; and $r(4) = .99, p < .01$, respectively.

Pearson product-moment bivariate correlations were used to test the predicted hypotheses. Hypothesis 1, which predicted that quest religious orientation and flow—either frequency of experiences or the intensity of such experiences—would be significantly positively related, was not supported. Hypothesis 2, which predicted that extrinsic religious motivation would be negatively correlated with flow, was supported, $r(120) = -.24, p < .05$, but only for the intensity of the flow experience. No relationship was found between extrinsic orientation and frequency of flow experiences.

Hypothesis 3, which predicted that higher levels of SES would be positively related with the intensity and frequency of flow and with scores on the measure of quest religious orientation, was examined with several different components of SES instead of a single SES measure. These components included educational level, economic situation during childhood, and current economic situation. No significant relationships were found between these variables and measures of flow experiences.

In addition, correlations between flow and two strictly demographics variables, age and gender, were checked, and both were found to be significantly related to the

intensity of reported flow experiences, $r(114) = .26, p < .01$ and $r(120) = -.19, p < .05$, respectively. Older students tended to experience more intense flow experiences than did younger students. Similarly, men were more likely to have more intense flow experiences than were women. This finding for gender was further bolstered by an independent t test, $t(118) = 2.04, p < .05$.

Correlations between the participants' scores on the quest religious orientation scale (Batson & Schoenrade, 1991b) and the SES variables of educational level, economic situation during childhood, and current economic situation were used to examine the second part of the hypothesis, concerning the relationship between quest and SES. The relationship between current economic situation and quest orientation was found to be significant but not in a direction that supports the *a priori* hypothesis, $r(169) = -.18, p < .05$. Specifically, it was found that as current level of income increased, quest-based religiosity tended to decrease. With respect to demographic variables, a significant relationship was found between quest orientation and gender, $r(170) = -.18, p < .05$, indicating that men tended to score higher on quest than women. This finding was also supported by an independent t test, $t(168) = 2.39, p < .05$.

Hypothesis 4 predicted that for general/everyday activities (e.g., sports, school, artistic pursuits, recreation/play, social interaction, intimacy, etc.), quest orientation would be related to flow scores (either intensity or frequency) at a greater level than would either intrinsic or extrinsic orientation. However, this hypothesis was not supported. Specifically, examining the religious orientation scores and flow scores for selected cases in which individuals reported general/everyday activities as their single most powerful experiences of a flow-like state produced no statistical support for the

hypothesis. However, a second analysis removing artistic and creative experiences was conducted because these processes are not necessarily “everyday” behaviors but rather are highly skilled and motivated tasks when compared to other activities, such as school, recreation/play, or social interaction. This correlational analysis also did not support the original hypothesis, yet an interesting result was discovered. Scores on intrinsic religious motivation were significantly negatively related with frequency of flow experiences, $r(83) = -.22, p < .05$, thereby indicating that individuals who were more intrinsically religious tend to experience flow less often during everyday events or behaviors.

Hypothesis 5, which predicted that for religious/spiritual activities, intrinsic orientation would be more positively related to flow scores than either quest or extrinsic orientation, was not supported. However, extrinsic scores were significantly positively correlated with the occurrence of flow experiences in public religious activities (e.g., religious services or prayer) rather than in private religious practices (e.g., personal prayer or meditation), $r(10) = .64, p < .05$. That is, people scoring higher on the extrinsic orientation scale were more likely to have had flow in group-based religious settings than during their personal religious practices. Further, a one-way ANOVA revealed that participants, regardless of religious orientation, who preferred to attend worship services usually had fewer flow experiences, $F(4,155) = 4.77, p < .01$.

Finally, Hypothesis 6 predicted that quest orientation would be associated with a greater reported overall frequency of flow experiences than would either intrinsic or extrinsic orientation. This hypothesis was not supported, as no relationship was found between quest scores and flow-based scores.

In addition to the analysis described above, a multiple regression procedure was conducted in order to examine any multivariate models that could aid in predicting flow. Independent variables used in the regression included all religious orientation scales, religious group or denomination, religious orthodoxy, self-indicated level of religiosity, desired level of religious service attendance, setting or type of activity in which the most powerful flow experience occurred, and several demographic and SES variables, including age, gender, marital status, employment status, educational level, economic level, and race or ethnicity. The intensity of flow experiences was used as the dependent variable.

A stepwise regression procedure resulted in the removal of all but three variables, which in the order of statistical contribution to the model were religious orthodoxy, intrinsic religiosity, and extrinsic religiosity. This model was a generally poor fit, $R^2_{\text{adj}} = .17$. However, the overall relationship between the model and the dependent variable was highly significant, $F(3,98) = 7.72, p < .001$. All three independent variables (orthodoxy, intrinsic religiosity, and extrinsic religiosity) were found to significantly predict flow intensity, $\beta = -.55, \beta = .38, \text{ and } \beta = -.22$, respectively. Further, orthodoxy was found to have a significant effect, $t(98) = -3.58, p < .01$, as was intrinsic orientation, $t(98) = 2.46, p < .05$, and extrinsic orientation, $t(98) = -2.35, p < .05$.

In addition to the hypothesis testing and regression analyses, several other findings suggest directions for future research. Individuals indicated that the frequency with which they would like to attend religious services was negatively related to frequency of flow experiences, $r(160) = -.16, p < .05$. In addition, age was found to be positively related to the participants' self-reported level of religiousness, $r(159) = .19, p <$

.05. Finally, a significant positive relationship was found between scores on the quest and extrinsic religious motivation scales, $r(171) = .30, p < .001$.

Discussion

Overall, the results of the study did not support the bulk of the predicted hypotheses. However, key findings do support some of the predictions and provide insight into the dynamics of flow and possible areas for future research. The first hypothesis, which predicted a positive relationship between quest religious orientation and flow, was not supported.

It is possible that the world view and beliefs associated with quest orientation are moving away from their historical attributions. The finding that scores on the quest and extrinsic religious motivation scales were significantly related was surprising. It appears that, at least in this sample, quest was more closely associated with experiencing the world in an extrinsic manner versus an intrinsic search for meaning and knowledge. Interestingly, this finding also was reported by Parker (R. J. Parker, personal communication, January 2006), who found the exact same level of correlation between the two variables in a sample of Christian college students in Kentucky. This finding may play a role in explaining the lack of significance for the relationship between quest and flow, which heretofore was considered to be, by definition, an intrinsically rewarding experience.

Hypothesis 2, which predicted that extrinsic religious motivation would be negatively correlated with flow, was supported for the intensity of flow experiences but not for the frequency of flow experiences. Csikszentmihalyi (1975b) described flow as an intrinsically rewarding experience. Therefore, this finding in support of Hypothesis 2 is theoretically logical given that extrinsic orientation would theoretically be linked to less engagement in intrinsically rewarding activities, such as flow experiences. It is

interesting, however, that the frequency of such experiences was not significantly related to religious orientation. This suggests that individuals scoring at different levels on the religious orientations scales may be just as likely to experience flow but that their views of the world and belief systems may alter the depth with which they enter into the flow state.

In general, Hypothesis 3, which predicted that higher levels of SES would be positively related to flow and quest religious orientation, was not supported. First, flow was not linked to SES, which is actually encouraging, as it suggests that these experiences may happen irrespective of an individual's economic level or social status. However, it is important to note that the study's results may be limited by the population being sampled, that is, university students. Many of the flow experiences described were linked directly to athletics or schooling, in addition to artistic pursuits and social interaction. A sample of individuals from a population in which SES is perhaps more influential on day-to-day experiences, such as middle-aged adults, may produce a more significant schism. Mitchell (1988) noted that blue-collar workers tend to be extrinsically driven and that their work provides no real opportunities for intrinsic engagements at work. The difficult labor and long hours can lead to a lack of activation energy in off periods, providing little motivation to become intrinsically involved in an activity. This may lead to differences in experiences of flow for skilled laborers from those for professionals, who although also extrinsically driven and sometimes unable to be creative at work, tend to seek out engaging and intrinsically rewarding extracurricular activities. It should be noted that the sample used—college students—may have limited the relative range in SES or employment, thereby limiting conclusions on this hypothesis. However,

a visual analysis of histograms for the economic items suggested that the sample did approximate a normal distribution.

However, the suggestion that SES and flow may be related in later stages of life was not supported by the current study; the current study found that age was positively related to flow intensity. Specifically, the older participants were, the more deeply they seemed to experience flow. Many of the older students at the university have families and jobs in addition to other life circumstances that often make everyday activities and schooling difficult to balance. However, the increased challenge of balancing these activities and still performing at a high level may be the reason for increased intensity of flow experiences. As Csikszentmihalyi (1975b) noted, flow is a careful balance between task difficulty and the skill level of an individual; flow experiences fall in the region of “optimal experience.” In addition, age was positive related to level of religiousness, adding to the complexity of the relationship. Therefore, as a person ages, he/she seems to become more religious and to experience flow more intensely although the current study's results do not provide further clues as to the mechanisms that link these variables. Further research will be needed in order to detail these findings more fully. Further, gender was also found to correlate with flow intensity; men described more powerful flow experiences. It is unclear from current theory why such a difference would exist. Research examining gender differences in flow should be undertaken in order to begin determining their importance and characteristics.

The second part of the hypothesis, concerning a positive relationship between quest orientation and SES, was not supported; in fact, a relationship opposite to the one predicted was found. Thus, individuals with less income are more likely to be searching

for religious meaning. However, when taken with the significant correlation between extrinsic and quest orientations, it also may be that these individuals are searching for religious communion or social involvement, as well as beliefs or spiritual meaning. Further research is required in order to delineate this relationship and determine what, if any, influences class and economics have on religious orientation. Another significant relationship was found between quest and gender. Men tended to score higher on the quest scale than did women, but the reason(s) for this relationship are not clear.

The fourth hypothesis predicted that for general/everyday activities (e.g., sports, school, artistic pursuits, recreation/play, social interaction, intimacy, etc.), quest would be more related to flow than would either intrinsic or extrinsic orientation. However, no statistical support was found for this prediction, suggesting that the type of activity in which flow is experienced is not necessarily related to quest religious orientation. Yet it was found that intrinsic religious motivation was related to frequency of flow experiences, suggesting that intrinsically religious individuals tend to experience flow less often during everyday events or behaviors. This is logically consistent with the definition of intrinsic religious orientation that views religion as an end in and of itself. Individuals who approach religion this way also may tend to not engage in everyday events as deeply as do those with a religious context, who were factored out in the analysis for this hypothesis. This supports the finding by Westman and Alexander (2004) that fundamentalists did not inquire as much into either the meaning or the application of academic ideas as into the application of religious ideas.

Hypothesis 5 examined the relationship between flow and religious orientation, only looking at religious activities in which flow was experienced. The hypothesis, that

intrinsic orientation would be positively related to flow in these settings, was not supported. It is possible that the low number of religious-based flow experiences ($n = 10$) contributed to a lack of power in detecting a significant relationship. Further, it may be that for highly intrinsic religious individuals, flow-like experiences in religious settings are not portrayed in the relatively pragmatic descriptions used in the Flow Questionnaire but instead are portrayed in a more spiritual or mystical sense.

A secondary finding external to the predicted hypothesis also was found. Specifically, people scoring higher on the extrinsic scale were more likely to have had flow in group-based religious settings than during personal religious practices, such as meditation or prayer. This is highly consistent with the theoretical definition of extrinsic religiosity (see Allport & Ross, 1967) in that individuals scoring high on this dimension tend to use religion as a social or personal outlet rather than as a way to build spiritual beliefs. Finally, it also was found that participants, regardless of religious orientation, who preferred to attend worship services frequently tended to have fewer flow experiences. This is important, as it suggests that religion is related in a broad sense to flow experiences. Although a secondary factor may be the ultimate mediator in the relationship between these variables, the present study provides some evidence that a link exists and provides direction for further research.

Finally, Hypothesis 6, which predicted that quest would be related to a greater reported overall frequency of flow experiences than would either intrinsic or extrinsic religious orientations, was not supported. This is consistent with the overall findings. Occurrence of flow was relatively unrelated to religiousness or religious orientation; the effects were more frequently on the depth of flow-like experiences. This can be

attributed to a number of factors. First, flow is an inherently powerful experience although it can occur in commonplace or ordinary activities. Therefore, descriptions or retrospective reports of such experiences may be altered by the participants' personal judgments of both the quality of the experience and the type of activity it occurred during. Further research examining differences in intensity of flow experiences between activity types or settings would help illuminate this issue. Second, from a methodological standpoint, it is possible that the scale construction affected the power of the data analysis. Specifically, a 12-item supplemental flow scale (Fave & Massimini, 1988) was used to measure flow intensity, whereas a single item (see Item #14, Appendix A) was used to measure frequency of flow experiences. Using other measurements techniques, such as the Experience Sampling Method (Csikszentmihalyi & Larson, 1987), may allow researchers to determine frequency and intensity in a more reliable manner, thereby providing more accurate statistics for analysis.

A regression analysis indicated a predictive model for flow intensity consisting of measures on religious orthodoxy, intrinsic religiosity, and extrinsic religiosity. However, the predictive power of the model was limited. This suggests that although religion, in different forms of measurement, can act as a reliable predictor of flow intensity, there is likely either a mediating variable responsible for the relationship or there simply exists a weak but direct relationship between the two constructs. Further research should examine this relationship.

Overall, the study was unable to provide support for several key hypotheses. However, the finding that extrinsic orientation is related to flow intensity, along with the relationship between preference for church attendance and flow frequency, provide initial

support for some form of a relationship between religiosity and flow experiences. Further research should aim at explicating this relationship and determining any direct links or moderating factors.

In addition, extraneous findings to the original hypotheses proved particularly interesting. For instance, the connection between quest and extrinsic orientation was unpredicted and contrary to accepted knowledge in the study of religion. Therefore, this finding must be examined through further study to determine if it is a replicable effect that suggests a change in either measurement of these constructs or the actual qualities of the respective orientations. However, it also is the case that this effect has been successfully replicated in at least one instance (R. J. Parker, personal communication, January 2006). Therefore, future efforts should expand on this finding and attempt to determine the roots of this phenomenon. It should be noted that a possible shift in what the individual religious orientations describe (e.g., extrinsic as only motivated by personal gain, quest as uninterested in organized religion) has been suggested informally by both the primary investigator and his research mentor during the past year. The present study appears to provide both initial support for this assessment and impetus for further examination.

In terms of limitations, the present study explored an area in which there has been a lack of research. Without previous data or reports to clearly guide construction of hypotheses, the primary investigator was left to theory and logic as the sole means of prediction. However, this is expected during pilot investigation of new scientific areas. Therefore, future studies may benefit from the initial data presented in this study.

Further, some subsamples within the sample were small, perhaps limiting conclusions from data analyses. For example, larger numbers of participants describing religious-based flow experiences, for example, may aid in determining whether relationships exist in these instances. In addition, the use of more detailed measurements, such as the Experience Sampling Method (Csikszentmihalyi & Larson, 1987) or other scales may allow for more precise or accurate examinations of variables. However, it must be noted that these methods may carry their own risks, such as expense, time, or usefulness in statistical analysis (e.g., qualitative interviews or observation).

Another limitation lies in the external validity of the study. The sample was drawn from a mid-sized, Midwestern, urban university, thereby limiting the applicability of the findings to a broader population. Further, differences may even exist between academic institutions or between academic programs (the present sample was largely drawn from midlevel psychology courses). Therefore, future studies should sample different populations, ideally drawing from a sample representative of the broader public community in order to maximize external validity. Further, specific subsamples could be drawn for specific purposes, such as to examine the presence of flow in clinical or medical populations.

In conclusion, this study has provided a groundwork for future research into the interplay between flow experiences and religion. Further, it provides the catalyst for creation of new hypotheses and questions pertaining to relationships within this area and drives the formulation of new ideas regarding religious orientations and other variables, such as SES, age, and gender. Perhaps most important, the study suggests that many individuals can relate to and recognize flow within their own lives. In fact, a large

majority of study participants reported having had flow experiences ($n = 120$, 70% of total participants). Therefore, it appears that flow is a relatively common occurrence and that conditions can exist to produce such events regardless of many individual differences. Combined with further research, this conclusion could, it is hoped, allow for the creation or tailoring of programs in order to increase intrinsic motivation and the occurrence of flow experiences, thereby moving society into an environment informed by positive psychology.

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Appendices

Appendix A

Research Questionnaire

Primary Researcher:
Scott R. Brown

Please try to answer *all* questions. ALL QUESTIONS SHOULD BE ANSWERED BY FILLING IN THE CORRESPONDING LETTER ON THE SCANTRON SHEET FOR THE QUESTION NUMBER ON THE QUESTIONNAIRE FORM, except for items indicated by asterisks (i.e., ***). These specific items should be filled out on the questionnaire form itself!

When finished, please return the questionnaire to the proctor. If you have *any questions* while completing the items, please ask the researcher or questionnaire proctor.

Please read the following three quotations that describe a type of experience. You are asked to indicate whether you have had similar experiences.

The quotations follow:

- i. My mind isn't wandering. I am not thinking of something else. I am totally involved in what I am doing. My body feels good. I don't seem to hear anything. The world seems to be cut off from me. I am less aware of myself and my problems.
- ii. My concentration is like breathing. I never think of it. I am really quite oblivious to my surroundings after I really get going. I think that the phone could ring, and the doorbell could ring, or the house burn down or something like that. When I start, I really do shut out the whole world. Once I stop, I can let it back in again.
- iii. I am so involved in what I am doing. I don't see myself as separate from what I am doing.

Please think back to the various experiences in which you were very much absorbed and involved in what you were doing.

-
1. Have you ever experienced something similar to **any or all** of the quotations given above?
 - a. YES
 - b. NO (*If NO, please go to #14*)

*** If YES, write a short description (1-2 sentences) of **the single most powerful** such experience you can recall:

First Experience:

Please keep this experience in mind and indicate your level of agreement with each statement below, using the following scale:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

2. I got involved.
3. I got anxious.
4. I clearly knew what I was supposed to do.
5. I got direct clues as to how well I was doing.
6. I felt I could handle the demands of the situation.
7. I felt self-conscious.
8. I got bored.
9. I had to make an effort to keep my mind on what was happening.
10. I would have done it even if I didn't need to.
11. I got distracted.
12. I enjoyed the experience, and/or the use of my skills.
13. Time passed... *use the following scale to answer:*

A	B	C	D	E
Very Slowly	Slowly	Normal Speed	Fast	Very Fast

---PLEASE CONTINUE ON NEXT PAGE---

*** Please use the following three sets of blank spaces to describe other experiences you have had that were similar to the quotations at the beginning of the questionnaire. *If you cannot think of three activities, please complete as many as possible and go on to the next item marked with *** (immediately below).*

Second Experience:

Third Experience:

Fourth Experience:

*** Please go back to each “experience” that you described above (including the *First Experience*), and indicate *next to your description* **what type of activity** you were involved in when you had the experience, such as work, sport, religious activity, etc. (Please remember this is a completely anonymous questionnaire—please report **all** types of activity, including drug or substance use.)

14. How often have you had these types of experiences:

A	B	C	D	E
Never	Once in your lifetime	Once per year	Once per month	Once per week, or even more often

The following statements refer to your personal religious or spiritual experiences and beliefs. Please use the scale shown below:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

15. If I were to join a religious group I would prefer to join a religious study group rather than a social fellowship.
16. The primary purpose of prayer is to gain relief and protection.
17. Religion is especially important because it answers many questions about the meaning of life.
18. My religious beliefs are really what lie behind my whole approach to life.
19. It doesn't matter so much what I believe so long as I lead a moral life.
20. I read literature about my faith.
21. One reason for my being a member of an organized religion is that such membership helps to establish a person's place in the community.
22. I pray chiefly because I have been taught to pray.
23. It is important for me to spend periods of time in private religious thought and meditation.
24. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.
25. My religious community is most important as a place to formulate good social relationships.
26. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.
27. What religion offers me most is comfort when sorrows and misfortune strike.
28. A primary reason for my interest in religion is that my religious group is a congenial social activity.
29. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.
30. The purpose of prayer is to secure a happy and peaceful life.
31. If not prevented by unavoidable circumstances, I attend religious services.
32. I try hard to carry my religion over into all my other dealings in life.
33. I'm a very religious, spiritual person.
34. Although I believe in my religion, I feel there are many more important things in my life.
35. Quite often I have been keenly aware of the presence of God or a Higher Power.
36. I believe there is a God or a Higher Power.
37. I'm am unsure whether God or a Higher Power exists **or** I strongly believe God or a Higher Power *does not* exist.

(The scale is repeated for your convenience)

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

63. I am a “born-again” Christian.
64. As I was growing up, my parents were very religious.
65. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.
66. It might be said that I value my religious doubts and uncertainties.
67. I believe our fate in the hereafter depends on how we behave on earth.
68. For me, doubting is an important part of what it means to be religious.
69. I think my prayers are answered.
70. I find religious doubts upsetting.
71. I believe God or a Higher Power controls everything that happens everywhere
72. I am constantly questioning my religious beliefs.
73. Questions are far more central to my religious experience than are answers.
74. As I grow and change, I expect my religion also to grow and change.
75. Belief in a higher power or purpose wasn’t very important for me until I began to ask questions about the meaning of my own life.
76. I do not expect my religious convictions to change in the next few years.
77. I believe that religious faith is better than logic for solving life’s important problems.
78. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world.
79. I never doubt the teachings of my religion.
80. I believe firmly in the teachings of my religion.
81. There are many religious issues on which my views are still changing.
82. My life experiences have led me to rethink my religious convictions.
83. I believe God or a Higher Power knows our every thought and movement.
84. I attend religious services at least once each week.
85. I would prefer to go to religious services (*instead of using the scale above, please use the following scale*):
- A. a few times a year or less
 - B. once every month or two
 - C. two or three times a month
 - D. about once a week
 - E. more than once a week

Finally, we'd like you to indicate some general information about yourself. None of this information can be used to specifically identify you and your anonymity is protected.

61. **Sex:** A. Male B. Female
62. My marital status is:
- A Single – *Never Married*
 - B Single – *Divorced or separated*
 - C Single – *Widowed*
 - D Living with a significant other – *Unmarried, Heterosexual Relationship*
 - E Living with a significant other – *Unmarried, Homosexual Relationship*
 - F Married or remarried
86. With respect to work, I am:
- A Retired
 - B Unemployed
 - C Employed – *Part-time*
 - D Employed – *Full-time*
87. With respect to school or education, I am:
- A Not a student
 - B Student – *Part-time*
 - C Student – *Full-time*
88. How would you describe the economic situation of your family as you were growing up?
- A We had barely enough to get by
 - B We had enough, but no more
 - C We definitely had enough of everything
 - D We had plenty of extras, but no luxuries
 - E We had a lot of luxuries

*** What job or career did your parents work in?

Father: _____ **Mother:** _____

89. How would you describe your current economic situation?

- A I have barely enough to get by
- B I have enough, but no more
- C I definitely have enough of everything
- D I have plenty of extras, but no luxuries
- E I have a lot of luxuries

90. Your racial/ethnic group membership is:

- A African American
- B Asian American (including Indian and Pacific Island regions)
- C Caucasian or European American
- D Hispanic American
- E Native American
- F Other: *Please indicate here:* _____

91. I consider myself to be a very religious person.

- | | | | | |
|----------------------|----------|-----------------------|-------|-------------------|
| A | B | C | D | E |
| Strongly
Disagree | Disagree | Uncertain/
Neutral | Agree | Strongly
Agree |

*** **Religious affiliation:** _____
Please be as specific as possible

*** **Age:** _____ years

Thank you very much for your participation! If you have any comments or questions, feel free to ask the questionnaire administrator or write them in the blank space below. Any questions or comments will be addressed in an in-class presentation of the study results.

Appendix B

Allport and Ross Religious Orientation Scale

Please indicate the extent to which you agree or disagree with each item below by using the following rating scale:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

Extrinsic Orientation Subscale:*

1. Although I believe in my religion, I feel there are many more important things in my life.
2. It doesn't matter so much what I believe so long as I lead a moral life.
3. The primary purpose of prayer is to gain relief and protection.
4. The church is most important as a place to formulate good social relationships.
5. What religion offers me most is comfort when sorrows and misfortune strike.
6. I pray chiefly because I have been taught to pray.
7. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.
8. A primary reason for my interest in religion is that my church is a congenial social activity.
9. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.
10. One reason for my being a church member is that such membership helps to establish a person in the community.
11. The purpose of prayer is to secure a happy and peaceful life.

Intrinsic Orientation Subscale:*

12. It is important for me to spend periods of time in private religious thought and meditation.
13. If not prevented by unavoidable circumstances, I attend church.
14. I try hard to carry my religion over into all my other dealings in life.
15. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.
16. Quite often I have been keenly aware of the presence of God or the Divine Being.
17. I read literature about my faith.
18. If I were to join a church group I would prefer to join a Bible study group rather than a social fellowship.
19. My religious beliefs are really what lie behind my whole approach to life.
20. Religion is especially important because it answers many questions about the meaning of life.

*The ordering of all 20 items should be scrambled.

Appendix C
12-Item Quest Scale
 (Items arranged by subscale)

All items will be administered with a 5-point Likert scale:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

Readiness to face existential questions without reducing their complexity

1. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.
2. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world.
3. My life experiences have led me to rethink my religious convictions.
4. God wasn't very important for me until I began to ask questions about the meaning of my own life.

Self-criticism and perception of religious doubt as positive

5. It might be said that I value my religious doubts and uncertainties.
6. For me, doubting is an important part of what it means to be religious.
7. (-) I find religious doubts upsetting.
8. Questions are far more central to my religious experience than are answers.

Openness to change

9. As I grow and change, I expect my religion also to grow and change.
10. I am constantly questioning my religious beliefs.
11. (-) I do not expect my religious convictions to change in the next few years.
12. There are many religious issues on which my views are still changing.

Note: A minus sign indicates that the item is reverse-scored.

Appendix D
Orthodoxy Scale
Funk's Survey of Attitudes toward Religion and Philosophy of Life

All items will be administered with a 5-point Likert scale:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

1. I believe firmly in the teachings of my religion.
2. I never doubt the teachings of my religion.
3. I believe that religious faith is better than logic for solving life's important problems.
4. I believe our fate in the hereafter depends on how we behave on earth.
5. I believe God or a Higher Power knows our every thought and movement.
6. I believe God or a Higher Power controls everything that happens everywhere.
7. I think my prayers are answered.
8. I attend religious services at least once each week.

Appendix E
Additional Religious Items

The following items are not from any standardized scale. They will be assessed using the following 5-point Likert-type scale:

A	B	C	D	E
Strongly Disagree	Disagree	Uncertain/ Neutral	Agree	Strongly Agree

I'm a very religious, spiritual person.

I believe there is a God or Higher Power.

I'm am unsure whether God or a Higher Power exists **or** I strongly believe God or a Higher Power *does not* exist.

I am a "born-again" Christian.

As I was growing up, my parents were very religious.

Appendix F

Flow Questionnaire

The following three quotations are presented to participants. After they have read them, they are asked to indicate if they have ever had a similar experience to any or all of the quotations and, if they have, to briefly describe that situation (1-2 sentences).

1. My mind isn't wandering. I am not thinking of something else. I am totally involved in what I am doing. My body feels good. I don't seem to hear anything. The world seems to be cut off from me. I am less aware of myself and my problems.
2. My concentration is like breathing. I never think of it. I am really quite oblivious to my surroundings after I really get going. I think that the phone could ring, and the doorbell could ring, or the house burn down or something like that. When I start, I really do shut out the whole world. Once I stop, I can let it back in again.
3. I am so involved in what I am doing. I don't see myself as separate from what I am doing.

Supplemental Flow Experience Clarification Questions

After reading and responding to the Flow Questionnaire, participants are asked to read the following statements and to rate their agreement with each, thinking specifically of the experience or event described in response to the flow quotations. The statements will be rated on a 5-point Likert-type scale.

1. I get involved.
2. (-) I get anxious.
3. I clearly know what I am supposed to do.
4. I get direct clues as to how well I am doing.
5. I feel I can handle the demands of the situation.
6. (-) I feel self-conscious.
7. (-) I get bored.
8. (-) I have to make an effort to keep my mind on what is happening.
9. I would do it even if I didn't have to.
10. (-) I get distracted.
11. Time passes (slowly – fast, on the semantic differential scale).
12. I enjoy the experience, and/or the use of my skills.

Note: A minus sign indicates that the score on the semantic differential scale should be reversed before summing the supplemental questions to produce a rating of the flow experience.

Appendix G

“Religious Orientation and Flow”
Informed Consent to Participate in Research
Department of Psychology
Eastern Michigan University

1. **Purpose of the Study:**
The purpose is to examine the relationship between certain attitudes or beliefs and types of consciousness experiences.
2. **Anonymity:**
Please do not put your name anywhere, so that your answers cannot be traced to you and you can be completely honest.
3. **Description of Procedures:**
You will fill out a questionnaire anonymously. The questionnaire should take about 30 minutes to complete. The questions ask you about personal experiences that may have resulted in certain states of consciousness. These states are usually associated with positive feelings and thoughts. Other questions will probe your religiousness and religious attitudes and beliefs.
4. **Right to Withdraw or Refuse to Participate:**
Taking part in this study is voluntary. You may refuse to participate or withdrawal from the research at any time without penalty of any kind.
5. **Use of the Research Results:**
The results are anonymous. The results of this study will be published in a psychological journal and presented at conferences. Any presentation of the study results will be presented in a group format devoid of any potentially personally identifying information. If you would like a copy of the results, please let the researcher, Scott R. Brown, know. You can reach him at *sbrown26@emich.edu*.
6. **Expected Risks of the Study:**
There are no known risks. Some questions, such as those about your attitude toward religion, may make you emotional, but not more so than normal discussion of these issues. If you would like to talk about any uncomfortable emotional reactions you have, please contact Counseling Services at Snow Health Center (487-1118) or the EMU Psychology Clinic (487-4987).
7. **Expected Benefits of the Study:**
If we are able to identify key aspects of positive and enjoyable states, it becomes possible to help people experience them. As a result, they will feel better about life and themselves. Therefore, the community at large will hopefully benefit from a better understanding of the relationship between positive consciousness experiences and individual beliefs and attitudes, which could help in the pursuit of psychological health and well-being. The individual participant will benefit from their participation, which will allow you to be an active contributor to scientific research. If you are participating as part of a college class, you may be able to receive extra-credit for your involvement. Whether there is extra-credit and the amount of extra credit are up to your professor. You will receive a receipt for participation that you will need to complete and turn in to your instructor for extra-credit.
8. **If You Have Questions or Comments:**
For questions about the research, please contact the researcher, Scott R. Brown, at *sbrown26@emich.edu*, or the thesis committee chair, Alida Westman, at *alida.westman@emich.edu*. For questions about participant’s right and other ethical issues, contact the Human Subjects Review Committee Chair, Dr. Karen Saules, at (734) 487-4988, or *ksaules@emich.edu*.

By completing the packet of questionnaires, you are implying agreement to participate in the study as detailed above, in this informed consent agreement. We are not requesting your signature so that your responses can be kept anonymous.

