© Journal of the Indian Academy of Applied Psychology
October 2009, Vol. 35, Special Issue, 40-47.

The Role of Flow Experience in Human Happiness

Fakir Mohan Sahoo and **Rajnandini Sahu**
Xavier Institute of Management, Bhubaneswar Utkal University, Bhubaneswar

Happiness is a Swedish sunset – it is there for all, but most of us look in the other way and lose it. The greatest part of our happiness depends on our dispositions, not our circumstances. With these observations in mind, the present study has been undertaken to fine-tune our dispositions in the conquest of happiness. The purpose of the present investigation is to examine the role of flow intensity in the context of satisfaction and happiness. The study involves a 2 (gender) X 2 (orientation: high flow vs. low flow) factorial design where males and females are separately categorized into two quasi-experimental groups: people experiencing high flow and those experiencing low flow. 128 adults of Cuttack and Bhubaneswar were randomly sampled for the study. Each participant was individually administered Life Orientation Scale and Flow Experience Questionnaires. Results reveal that flow experience is significantly related to total life satisfaction, thus suggesting that happy individuals are people with high flow. The findings have been explained in the light of contemporary conceptualization.

Keywords: Flow, Positive psychology, Human happiness

Happiness is as a butterfly which, when pursued, is always beyond our grasp, but which if you will sit down quietly, may alight upon you. Truly indeed! In the present world scenario, where everyone seems to be moving at a fast pace, happiness has become a concept long lost in oblivion. Happiness cannot be traveled to, owned, earned, worn or consumed. Happiness is the spiritual experience of living every minute with love, grace and gratitude.

Happiness is the emotion in which one experiences feelings ranging from contentment and satisfaction to bliss and intense joy. Simply speaking, happiness is commonly understood as how much one likes the life one lives, or more formally, the degree to which one evaluates one's life as a whole positively.

Humanistic psychologists emphasize the positive effects of happiness. Maslow(1970) opined that, together with "joy" and "peak experiences", happiness accompanies growth towards "self-actualization". According to this view, happiness is both a result and an accelerator of growth.

The psychosomatic theory holds the opinion that chronic frustration increases vulnerability to disease, whereas a positive attitude towards life leads to good health. Empirical evidence about the effects of happiness on life is scarce. However, valuable inputs can be obtained from the by-products of various investigations. One such by-product is mood. The more satisfied a person is with life, the more often he or she is in good mood.

Correlational studies show that happy people have a rosier outlook. They are more satisfied with different aspects of life and are considered as more trustful. Studies on life satisfaction further reveal that happy people are more "emphatic" and "socially sensitive". They also score high on tests of cognitive "field independence". Happy people participate more in community activities. They are more

concerned with social and political problems and are less interested in boycotts and strikes.

As far as marriage is concerned, happy people stand a better chance of marrying and are less likely to get divorced. A five-year old follow-up study by Erbes and Hedderson (1984) shows that unhappiness predicts divorce. Happiness is also highly correlated with personality traits like ego strength, maturity and optimism.

A lot of conditions do affect the subjective appreciation of life, both individual circumstances and social conditions. Happiness is substantially affected by people's work condition, profession and intimate relations. To a great extent, happiness depends on the gratification of innate bio-psychological needs. The better these needs are satisfied, the better people feel and the more they are satisfied with life.

Thus, it can be said in a broad sense, that happiness is synonymous with 'quality of life' or 'well-being'. Several humanistic psychologists such as Maslow (1970), Rogers (1961), and Fromm (1941) developed successful theories and practices that involved human happiness, despite a lack of solid empirical evidence at the time behind their work. Current empirical researchers in this subfield include Bandura (1999), Seligman (2002), Csikszentmihalyi (1990, 1997) and Taylor (1983). Can happiness be measured 'objectively' or only 'subjectively' by questioning? If questioning is the only way to assess how people judge life, do interviews tap an existing state of mind or do they merely invite a guess? If people do indeed have an idea about their enjoyment of life, do their responses to questions reflect that idea adequately? These questions have instigated a great deal of empirical research and can now be fairly well answered.

During the last decades more than a hundred methods have been proposed; some of them presented under impressive names such as 'Life Satisfaction Index', 'General Satisfaction Score' or 'Happiness Scale'. 'The Positive Affectivity and Negative Affectivity Scale – PANAS' (Watson & Clark, 1994) and the subjective well-being Inventory (Nagpal & Sell, 1985) are other widely used measurements of subjective well-being. The last decades have witnessed several happiness measurements, most of which are multidimensional and are used to measure different qualities of life. However, true conclusions can be gained only when measurement biases are controlled and different types of assessment methods are applied and they all lead to the same conclusion.

Imagine that you are playing Tennis and your full attention is focused on the movements of your body, the position of the ball,and the air whistling past your face. There is no room in your awareness for conflicts or contradictions; you know that a distracting thought or emotion might get you down. The run is so perfect that you want it to last forever.

If playing does not mean much to you, this complete immersion in an experience could occur while you are singing, dancing or reading a book. It may occur in a social interaction, when talking with a good friend, or while playing with a baby. If you love your job, it could happen during a complicated surgical operation or a close business deal. These exceptional moments are called "flow" experiences.

The concept of 'flow' was developed by Csikszentmihalyi (1990, 1997, 1998). Flow is the mental state of operation in which the person is fully immersed in what he or she is doing, characterized by a feeling of energized focus, full involvement, and success in the process of the activity. Flow experiences occur when a person becomes engaged in controllable but challenging tasks or activities that require considerable skill and which are intrinsically motivating (Csikszentmihalyi & Csikszentmihalyi, 1988). For flow experiences to occur, the person must have good chance

of completing these tasks. These tasks require complete concentration so that the person becomes deeply and effortlessly involved in them, so much so that he or she no longer thinks of the worries and frustrations of everyday life. The sense of life disappears when involved in these tasks and paradoxically the sense of self emerges as strengthened after the task is completed. Time perception is altered during flow experiences. Hours can pass in what seem to be minutes and minutes can seem like hours.

Flow experiences may occur during reading, sports, involvement in creative arts or music or involvement in certain types of work. Examples of activities that have been shown in scientific psychological studies to lead to flow experiences include reading, sailing, playing chess, rock climbing, dancing, writing and gang motorcycling. While the tasks may initially be done for other reasons, ultimately they are done because they are intrinsically rewarding. Writers often say that they write not for financial or occupational advancement but because it is so enjoyable. Sailors may spend a lot of money and time getting their boats into good condition, not because they want to win sailing competitions or maintain contact with other sailors, but because, for them, nothing compares with the flow experience of being out sailing.

Activities that lead to flow experiences are said to be 'autotelic' Autotelic experiences are those that arise from activities which are not done for some anticipated future benefit but because the activity in itself is intrinsically and immediately rewarding. Two main ways of measuring flow experiences have been developed (Csikszentmihalyi & Csikszentmihalyi, 1988). The first involves completion of a questionnaire on one occasion only. The second is called the experience-sampling method.

In the questionnaire method, quotations from people who have had flow experiences are given (e.g., '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.'). Respondents are then asked to indicate if they have had such experiences, and if so how often and in what context s. They are then invited to rate flow experiences they have had on a series of scales.

In the second way of assessing flow experience, participants are invited to carry electronic watches or mobiles, which give signals periodically for participants to fill in a page in notebooks they carry. The electronic watch or mobile gives about eight signals at random intervals per day and participants carry the electronic watch or mobile for a week in most studies. Each of the pages of the notebook that participants fill in when the electronic watch or mobile (as the case may be) sends a signal is the same. The information from these sheets is combined to give scores for various dimensions of the flow experience in the following: affect (happy, cheerful, sociable); system negenthropy (clear, open, cooperative); activation (alert, active, strong, excited); cognitive efficiency (concentration, ease of concentration, unself-consciousness, clear); motivation (wish to do the activity, control of actions involved); and self-concept (feel good about self, meeting own expectations, satisfied with performance) (Csikszentmihalyi & Csikszentmihalyi, 1988).

Although many of the predictors of human happiness have been empirically investigated, not many studies have been conducted in the context of flow experience. It appears appropriate to examine the construct. The present study is directed to investigate the relationship between flow experience and happiness in the Indian context.

Method

Participants:

128 adults (64 males and 64 females) from Cuttack and Bhubaneswar were randomly sampled for the study . All of the participants were educated and belonged to

middle socio-economic status background. Furthermore, the sample constituted married and unmarried, employed as well as unemployed participants.

Measures:

The Life Orientation Scale (LOS): It is a multi-part questionnaire. It consists of 4 parts. The scale developed by Sahoo (2005) has been specifically designed to measure the indicators of happiness. The scale has been validated and pretested (Sahoo, 2005) prior to the present investigation.

Part-1 of the LOS measures total life satisfaction. This part includes ten items. Respondents are required to indicate their level of satisfaction on a 7-point scale, where "1" indicates "strongly disagree" and "7" denotes "strongly agree". Two of the items are keyed in negative direction and the scoring of these two items is reversed. The total life satisfaction score is then computed by summing up the scores across all the items.

Part-2 of the LOS measures domain-specific happiness. Five such domains are represented in this part of the questionnaire. These include education (for self or children), relations, self, recreation and family. There are a number of sub-domains under each of these domains. For instance, the domain of education(for self or children) includes sub-domains such as coaching, exam performance, teachers, school environment and college environment. Respondents are required to indicate their level of satisfaction on a 7-point scale with respect to each domain as well as each sub-domain, where "1" denotes "terrible" and "7" indicates "delightful". While computing the score, two sets of scores are computed for each domain; a domain (say, education) score in general and a domain (say, education) scoring in specific. The score in general is computed as indicated by the respondent in response to his/her satisfaction with a domain (say education) in general. The score in specific is computed by summing the scores across subdomains of a domain (say, education) and then computing the average. This score labeled 'score in specific' is computed on the rationale that people view specific aspects more critically compared to their perception of domain in general.

Part-3 of the LOS measures the intensity of feelings. Twenty-four affect-denoting (12 positive and 12 negative) adjectives are presented. The positive items include cheerful, lively, joyful and the like, whereas negative items include irritable, depressed, scared and the like. Respondents are asked to indicate the frequency with which they have been experiencing each of these feelings for the previous two months. The rating scale ranges from 1 to 5 where "1" indicates "never" and "5" denotes "almost always". The positive affect score is computed by summing scores across positive items and the negative affect is similarly computed by summing the scores across negative items. The differential affect experience score is obtained by subtracting the two scores which is indicative of a person's tilt toward positive or negative affect states.

Part-4 of the LOS consists of seven personal information indicators. Respondents are asked to indicate their name (optional), sex, age, residence, education, income (monthly) and occupation.

The Flow Experience Questionnaire : Basically it consists of two parts and developed by Csikszentmihalyi (1998). In the first part, quotations from people who have had flow experiences are given (e.g., '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'). Respondents are then asked to indicate if they have had such experiences, and if so, how often and in what contexts. They are then asked to proceed to the second part in which they rate flow experiences they have had on a series of scales. This part consists of twelve statements such as, 'I get involved', 'I get anxious', 'I clearly know what I am supposed to do' and the like. Respondents are

asked to indicate the degree to which they agree or disagree with each of the statements on an 8-point scale, where, "1" denotes "strongly disagree" and "8" indicates "strongly agree". Five of the statements are negatively keyed and the scoring of these items is reversed. The flow experience score is then computed by summing up scores of all the statements.

Procedure:

The study was conducted over a period of three months. Prior to collecting the data, the participants were identified and approached at their respective homes or at their work places. The investigator approached each respondent individually and imparted a clear description of what the study was all about and what the respondent had to do. The instructions for each part of the questionnaire were adequately explained. Each participant received an explanation on a face-to-face basis by the investigator and care was taken to ensure that he/she understood the instructions. Moreover, detailed instructions were also provided on all the questionnaires for their reference. Ample space was provided for their responses. The respondents were also assured that their participation in the study was voluntary and their responses would remain confidential and used for research purpose only. Participants were also informed that the research was concerned with the general conclusions rather than the individual responses and so, it would be appreciated if they respond to each item in the questionnaire freely and frankly without any hesitation.

Results

The product moment correlation coefficients are computed between the extent of flow experience and other happiness variables. As predicted, flow experience is significantly related to total life satisfaction in the group of males, $r(62)=.47, p<.01$ (See Table - 1).

Table-1 Product Moment Correlation Coefficients Between Flow Experience and Other Variables

Variables	Males (n=64)	Females (n=64)	All (N=128)
Total life satisfaction	.47**	0.12	.28**
Satisfaction with education in general	0.03	0.08	0.02
Satisfaction with education in specific	0.09	-0.04	-0.06
Satisfaction with relations in general	0.06	0.07	0.1
Satisfaction with relations in specific	0.15	-0.02	0.09
Satisfaction with self in general	.28*	0.18	.20*
Satisfaction with self in specific	.34**	0.17	.23**
Satisfaction with recreation in general	0.06	0.14	0.11
Satisfaction with recreation in specific	0.14	-0.03	0.05
Satisfaction with family in general	-0.01	.25*	0.12
Satisfaction with family in specific	0.14	0.1	0.13
Positive affect experience	.47**	0.08	.21*
Negative affect experience	-.34**	-0.19	-.25**
Differential affect experience	.45**	0.15	.27**

*p<.05 **p<.01

Furthermore, there is significant association between flow experience and total life satisfaction in the total pool of participants, r (126)=.28, p<.01. This is in congruence with our hypothesis. However, the result doesn't show significant relationship between flow experience and various indicators of happiness excepting the variable of self. In relation to satisfaction with self (in general), the result shows significant relationship between flow and this variable in the group of males, r(62) =.28, p<.05. This positive significant association is also shown in the context of all the participants, r(126)=.20, p<.05. Similarly, there is significant relationship between flow and satisfaction with self (in specific) both in the group of males as well as in the total pool of participants respectively, r(62)=.34, r(126)=.23, p<.01.

Correlations have been computed between flow experience and affect experience. In line with our prediction, flow is significantly related to positive affect experience in the group of males, r (62)=.47,p<.01. Similarly, as shown in Table-1, flow is also significantly associated with positive affect experience in the total pool of participants, r (126)=.21,p<.05. With regard to negative affect experience, the result shows significant negative correlation between flow and this variable in the group of males as well as in the total pool of participants respectively, r (62)=-.34, r (126)=-.25, p<.01. Differential affect experience represents a mental algebra implying the difference between positive and negative affect experience. The differential affect experience in the present investigation implies a comparative tilt towards positive emotions. Flow is significantly associated with differential affect experience both in the group of males as well as in the total pool of participants respectively, r (62)=.45, r (126)=.27, p<.05.

The product moment correlation coefficients are also computed between certain socio-demographic features (such as age, education and income) and other happiness variables. The result reveals that age is significantly related to flow experience in the total pool of participants, ***r*** (126)=.19,p<.05, thus suggesting that the intensity of flow increases with increase in age. However, the result doesn't show significant relationship between age and various indicators of happiness excepting satisfaction with education (in specific), thus indicating that a person's satisfaction with self, relations, recreation, family is independent of his/her age.

The result further reveals that education is significantly related to flow experience in the total pool of participants, r (126)=.25,p<.01. However, the result doesn't show significant relationship between education and various indicators of happiness excepting the variable of satisfaction with education (in specific) and relations (in general). By and large, happiness is found to be independent of persons' educational qualification.

The product moment correlation coefficient computed between income and other happiness variables shows that income is significantly related to flow experience in the group of females, r (62)=.26,p<.05. Furthermore, there is significant association between income and flow experience in the total pool of participants, r (126)=.17,p<.05. This suggests that the intensity of flow experience increases with increase in income. The result, however, doesn't show significant relationship between income and various indicators of happiness excepting the variable of satisfaction with education (in specific) and recreation (in general).

Discussion

The purpose of the present investigation was to examine the role of flow intensity in the context of satisfaction and happiness. The objective was also to investigate the role of gender difference in this context.The empirical investigation generates a number of interesting findings.

The correlational analysis reveals a significant association between flow experience and total life satisfaction. There is a significant relationship between flow and positive affect experience. There is also a negative and significant association between flow and negative affect experience. The results further depict that flow experience is significantly related to age, education and income. However, these socio-demographic factors are unrelated to other variables.

The Significance of Flow Experience

The results reveal that flow experience is significantly related to total life satisfaction. However, the results don't show significant relationship between flow experience and various indicators of happiness excepting the variable of satisfaction with self. A possible explanation for this may be that, other factors being constant, an experience of flow emerges when a person is primarily satisfied with one's own self. A person who is at harmony with his or her own self can create harmony around himself or herself.

Flow is positively and significantly associated with positive affect experience and inversely related to negative affect experience. This finding is consistent with contemporary literature.

Seligman (2002) has argued that positive and negative emotions may be distinguished from each other in terms of the degree to which they prepare us for win-lose or win-win transactions. Negative affect experiences narrow our attention to the source of threat and mobilize us for fight or flight. Negative-emotions prepare us for win-lose transactions in which there is a winner and a loser, so there is no net gain from the transaction. In contrast, positive affect experiences tell us that something good is happening. Positive emotions broaden our attention and so we become aware of the wider physical and social environment. This broadened attention prepares us to be open to new ideas and to be more creative than usual (Isen, 2000). Thus, positive emotions offer us opportunities to show greater productivity and prepare us for win-win transactions (Watson, 2002).

From this analysis, the picture clearly emerges that flow experience and positive affect experiences walk hand in hand, whereas negative affect experiences prove to be obstacles in the path of flow experience.

Major Implications

Since the study reveals by and large the positive impact of flow, intervention strategies can be suggested to enhance happiness. To serve this purpose, the first is to create flow experiences. To create flow experiences, the individual needs to select controllable but challenging tasks. The tasks selected must have clear goals and offer immediate feedback. More importantly, the individual needs to focus on the task and lose awareness of his or her own self.

Activities that lead to flow experiences are said to be 'autotelic'. Autotelic experiences are those that arise from activities that are not done for some anticipated future benefit but because the activity in itself is intrinsically and immediately rewarding. Hence, a major step towards enhancing happiness is to develop the intrinsic motivation of people.

There is a strong association between signature strengths and the experience of flow. Seligman (2002) argues that each of us has a set of signature strengths and that if we use these everyday in the main areas of our lives then we will experience gratification and authentic happiness. Thus, an important way of enhancing happiness is to identify and develop the signature strengths of individuals.

Practical applications of positive psychology(Seligman & Csikszentmihalyi, 2000 a, 2000 b) include helping individuals and organizations correctly identify their strengths and use them to increase and sustain their respective levels of well-being. Therapists, counselors, coaches and various other psychological professionals can use the new

methods and techniques to build and broaden the lives of individuals who are not necessarily suffering from mental illness or disorder.

A state of flow ensues when a person loses himself or herself completely in the job at hand. Such experiences involve tot al concentration and ef fortless particip ation. People belonging to a general population at times experience such states. However, they seem to lose track of such feelings amidst the worries and anxieties of everyday life. Hence, an ambitious approach would involve the use of non-reactive measures or qualitative data with an expanded sampling frame that would involve professionals from different fields such as noted writers, singers, dancers, athletes, sculptors, musicians, paragliders and the like. If these qualit ative dat a are competently content-analyzed, meaningful conceptual categories may be generated from the investigation.

References

Bandura, A. (1999). Social cognitive theory of personality. In L. Pervin and O. John (eds), *Handbook o f P ersonality: T heory a nd Research* (pp.154-196). New York: Guilford.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*.New York: Harper Row.

Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everydaylife.* New York: Basic Books.

Csikszentmihalyi, M. (1998). *The flow experience questionnaire.* Claremont Graduate University, U.S.A..

Csikszentmihalyi, M. & Csikszentmihalyi, I. (1988). *Optimal experience: Psychological studies of flow in consciousness.* Cambridge: Cambridge University Press.

Fromme, E. (1941). *Escape from freedom*. New York: Avon.

Isen, A. (2000). Positive af fect and decision making. In M. Lewis and J. H. Jones (Eds), *Handbook of emotions* (2nd ed., pp. 417-436). New York: Guilford.

Maslow, A. H. (1970). *Motivation and personality* (2nd ed.). New York: Harper & Row.

Nagpal,R.& Sell H.(1985). *Subjective well-being:Regional health paper*. SEARO, No.7. New Delhi: World Health Organization

Rogers, C. (1961). *On becoming a person.* Boston: Houghton Mufflin.

Sahoo, F.M. (2005). *The life orient ation scale.* Unpublished report, Psychology Department, Utkal University, Bhubaneswar, India.

Seligman, M. (2002). *Authentic happiness*. New York: Free Press.

Seligman, M. & Csikszentmihalyi, M. (2000a). Positive psychology: An introduction. *American Psychologist, 55*, 5-14.

Seligman, M. & Csikszentmihalyi, M. (2000b). *Special issue of American Psychologist o n happiness, excellence and optimal human functioning* (vol. 55, No. 1). Washington, DC: APA.

Taylor, S.E. (1983). Adjustment to threatening events. *American Psychologist s, 38,* 1161-1173.

Watson, D. (2002). Positive af fectivity: the disposition to experience positive emotional states. In C.R. Snyder and S. Lopez (eds), *Handbook of positive p sychology* (pp. 106-119). New York: Oxford University Press.

Watson, D. & Clark, L. (1994). 'The P ANAS-X: Manual for the Positive and Negative Affect Schedule – Ex panded Form'. Unpublished Manuscript: University of Iowa, Iowa City

Received: 30 April, 2009
Revision Received: 09 July, 2009
Accepted: 29 August, 2009

Fakir M. Sahoo, PhD, Research Professor, Xavier Institute of Management, Xavier Square, Bhubaneswar-751 013, Email: fakirmohan@ximb.ac.in

Rajnandini Sahu, Research Scholar , Psychology Dep artment, Utkal University, Bhubaneswar - 751004