Chapter 14
Toward a Psychology of Optimal Experience

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It is useful to remember occasionally that life unfolds as a chain of subjective experiences. Whatever else life might be, the only evidence we have of it, the only direct data to which we have access, is the succession of events in consciousness. The quality of these experiences determines whether and to what extent life was worth living.

Optimal experience is the "bottom line" of existence. It is the subjective reality that justifies the actions and events of any life history. Without it there would be little purpose in living, and the whole elaborate structure of personality and culture would reveal itself as nothing but an empty shell.

During the past several decades, psychology has neglected experience for the sake of behavior. In so doing it has followed the widespread folk belief about the primacy of action over experience: What people do is more important than how they feel. This assumption is based on the unwarranted merger of two perspectives. For an individual looking out at other persons, it is generally true that behavior takes precedence over inner states. I am less interested in knowing how others will feel than in what they will do. The ability to predict the behavior of others is more useful than the ability to predict their inner states. But this is true only because *other people's behavior has a direct impact on my experience*. In other words, what we need to know about others is their actions, but what counts about ourselves is our feelings. We are all behaviorists when facing outwards, but turn phenomenologists as soon as we reflect.

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Not only do other people's actions determine our own inner states more directly than their inner states do, but the former are also more accessible. Strictly speaking, we can never know what another person feels, whereas we do know what he or she does. Thus behavior is a more reliable measure of other people's states than are their reported experiences. But the reverse is true when each person reflects on his or her inner state: Subjective feelings are a more reliable measure of what condition the organism is in than any observable behavior could be.

Despite the importance of what passes in consciousness, psychology has by and large shied away from confronting it. Most psychological research in this century has focused on the periphery of lived experience: on behavior, attitudes, choices; on cognitive processes and performance viewed from an outside, abstract perspective; on relationships between intrapersonal and external events. In studying these epiphenomena it hardly ever asks, how do these feelings relate to the *psyche*, that is, to subjective reality?

The justification usually advanced to explain this state of affairs is that science must deal with objective, tangible, verifiable data, and therefore if psychology is to be scientific it, too, must concentrate on the objective dimensions of human beings. But emphasis on objective qualities in science is only appropriate when dealing with *objects*. It is misplaced when subjectivity is the paramount feature of the object investigated. The chemist need not worry about how the molecule experiences its existence and interprets it to itself. The so-called hard sciences can afford to be parochially anthropocentric, since they are ultimately handmaidens of human purpose. They are expected to fit the world into cognitive categories that make it possible for us to manipulate it.

But psychology is left with the unwieldy task of being objective about subjectivity. Behaviorism manages to evade this task, because by adopting a natural science stance it transforms the experiencing subject into an object of experience and thus fails to come to grips with what is specifically interesting, and essential, about human beings. Psychologists, to the extent that they have adopted the methods of the older sciences, have generally relaxed in the comfortable assumption that they, too, are being scientific. Science, after all, is nothing but method; mastering the latter guarantees that sooner or later one will reach knowledge and understanding. This view, however, is based on a simplification. A method is a means, the adequacy of which cannot be evaluated except with reference to an outcome, or goal.

If the most important aspect of human life is the quality of experience, then the goal of psychology as a science must dictate methods appropriate to the description and understanding of subjective experience.

Limiting Conditions on the Integrity of Experience

Subjective experience exists in consciousness. It consists of thoughts, feelings, sensations-in short, information that effects a discriminable change in awareness. When I think "this is wonderful music" or "this is a boring meeting,"

consciousness relates information about external events to its own states and attributes positive or negative valences to the relationship. Focusing attention on the interplay of data in consciousness is what we call experience.

It is generally assumed that experiencing presents no problem, that as long as one is alive and awake, one cannot help "experiencing." But this is not true. Relating information from outside sources to states of consciousness must be an ordered process, and therefore it requires inputs of energy. One source of energy is the calories necessary to keep consciousness operating at a physiological level. Important as this input is in the overall economy of the organism, its significance is trivial from the purely psychological viewpoint.

The more relevant source of energy that keeps consciousness in an ordered state is information. Consciousness becomes disorganized when the input of information is either too complex or too simple. This can be due to either external causes-the environment contains too many or too few stimuli-or to malfunctions of attentional processes that allow excessive or inadequate information to reach consciousness (Csikszentmihalyi 1978; Hamilton 1981).

External causes of disruption have been researched rather extensively. Studies of stimulus deprivation, for instance, suggest that without inputs of information from outside, consciousness becomes chaotic (Geiwitz 1966; Zubek 1969; Hamburg et al. 1970; Zuckerman 1964, 1979). Its content-images, feelings, thoughts-become unpredictable and uncontrollable. Consciousness is not ordered "naturally"; it cannot maintain its order from within itself. To keep functioning in a predictable way, it requires inputs of ordered information. For it is not necessary that stimuli merely be available; they must also be compatible with the parameters of expectation established by genes and learning. If the stimuli are too numerous, or contradictory, or unassimilable, experience will be disrupted.

Internal causes that disrupt the ability to process experience are equally well-known, although their existence is usually not related to a theory of experience. Autism, for instance, appears to involve excessively rigid barriers against incoming information. Several other pathologies, like schizophrenia, are characterized by the opposite syndrome: stimulus over-inclusion. Psychiatry is beginning to recognize and label an increasing number of psychic dysfunctions as "attentional disorders" (Harrow et al. 1972; Harrow et al. 1977; Wynne et al. 1976; Brumback and Weinberg 1977).

Thus optimal experience could be defined in formal terms, rather than in terms of content. First, it must be an ordered state of consciousness. As we have just seen, order depends on certain characteristics of the information flow. When information is too little or too much, when it is random or incongruous, consciousness fails to operate. Attention becomes unpredictable and it cannot be used to process experience.

Within the broad range of ordered experience, *optimal* experience may be further defined in terms of two dimensions: what there is to do and what one is capable of doing. Part of the information that gets processed in consciousness consists in an evaluation of the opportunities for action present in a given situation. At the same time, we also tend to be aware of what our abilities are in terms of

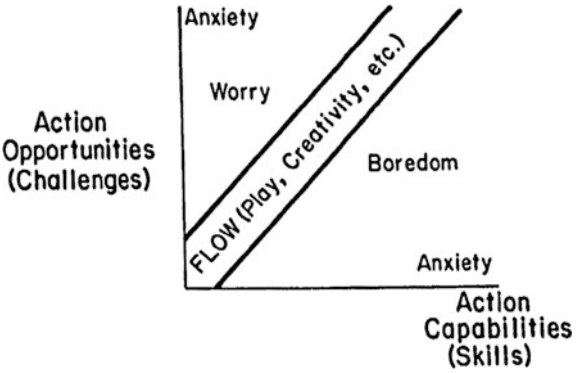

Fig. 14.1 Model of the flow state. When action opportunities are perceived by the actor to overwhelm his capabilities, the resulting stress is experienced as anxiety. When the ratio of capabilities is higher, the experience is worry. The state of flow is felt when opportunities for action are in balance with the actor's skills. The experience is then autotelic. When skills are greater than opportunities for using them, the state of boredom results, which again fades into anxiety when the ratio becomes too large. (Adapted from Csikszentmihalyi 1975)

these opportunities. It is convenient to call the first one of these two parameters of perception "challenges" and the second "skills." Optimal experiences are reported when the ratio of the two parameters approximates unity; that is, when challenges and skills are equal (see Fig. 14.1).

When artists, athletes, or creative professionals describe the best times experienced in their favorite activities, they all mention this dynamic balance between opportunity and ability as crucial. Thus optimal experience-or *flow;* as we came to call it using some of the respondents' own terminology—is differentiated from states of boredom, in which there is less to do than what one is capable of, and from anxiety, which occurs when things to do are more than one can cope with (Csikszentmihalyi 1975, 1979, 1981a, b).

The relationship between the optimal flow experience, boredom, and anxiety seems to hold not only in peak experiences, but to be diffused through everyday life. In a study of high school students, Mayers asked teenagers to rate their favorite activities as well as the high school classes they were taking in terms of the challenges and skills present in each. The ratings he obtained are summarized in Fig. 14.2. The great majority of the favorite activities were placed in the diagonal "flow channel" Arts (drama, ballet, playing music) and sports were rated the most complex, in that they were seen to use many skills in dealing with high challenges. TV watching and music listening were rated as equally enjoyable, although lower in complexity because they required the use of few skills to meet negligible challenges. Friends, on the other hand, were listed all along the flow diagonal, because interaction with them is flexible: It can be either very relaxing or quite demanding. In contrast to these favorite activities, school classes tended to be placed consistently off the diagonal; "hard" subjects like math and sciences

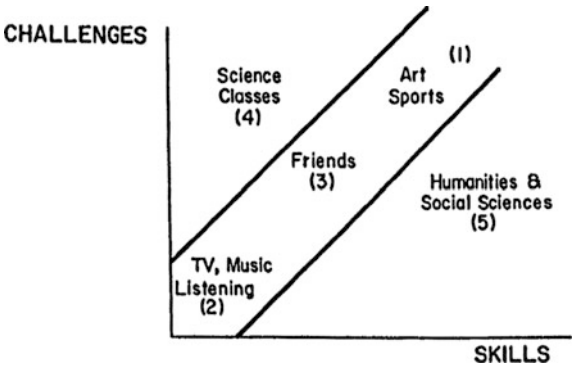

Fig. 14.2 How high school students rate their favorite activities (Nos. 1, 2, 3) and school classes (Nos. 4 & 5) in terms of challenges and skills. (Adapted from Mayers 1978)

typically in the region of anxiety, while humanities and social science classes often fell in the area of boredom (Mayers 1978).

A more exhaustive study of the relationship between the ratio of challenges and skills on the one hand and optimal experience on the other is one in which a sample of 107 adult workers participated (Csikszentmihalyi and Graef 1980; Csikszentmihalyi and Kubey 1981). In this study respondents carried an electronic pager (or "beeper") on their persons for a week. At random times within 2-h blocks between 8 a.m. and 10 p.m. a transmitter sent a signal which caused the pagers to "beep." At the signal, respondents were to fill out a standard rating sheet bound in a booklet they also carried. Each sheet contained questions about the respondent's location; activity, thoughts, and semantic differential-type scales for rating internal states such as "happy-sad" and "active-passive." In addition, respondents were asked to rate each situation in which they were paged in terms of the challenges present, and in terms of the skills available, on two 10-point scales. A total of 4,791 responses were collected from the 107 adults.

The question was, do people who tend to perceive challenges and skills as balanced report higher levels of optimal experience? Optimal experience was operationalized in terms of individual mean scores, aggregated over a week of self-reports, on two dependent variables: Affect (sum of items "happy," "cheerful," and "sociable") and Activation (sum of items "active," "alert," and "strong"). We used 27 predictor variables, including demographic and personality data. The theoretically relevant predictors were four variables consisting of the percentage of time each person reported being in Flow (Challenge = Skills >0), in a state of Boredom (Challenge < Skills), in Anxiety (Challenge > Skills), and in a fourth state that might be best called Stagnation, where both challenges present and skills available were rated "0."

Table 14.1 shows what happens when the average level of affect reported is regressed against the 27 predictors. Thirty-one percent of the variance in how happy, cheerful, and sociable people feel is explained in terms of seven predictors. The single best predictor of overall affect is the "alienation from self' subscore on a shortened version of Maddi's Alienation Scale (Maddi et al. 1979). The second is the amount of flow-like experiences reported. The third-with a negative sign—is

Table 14.1 Stepwise multiple regression of mean self-reported *AFFECT* (Happy, Cheerful, Sociable)

Variable	Multiple correlation (R)	Cumulative explained variance (R^2)	R^2 change	Beta
Alienation from self	0.36	0.13	0.13	0.37
Challenges = Skills (FLOW)	0.44	0.20	0.07	0.23
Challenges = Skills = 0 (STAGNATION)	0.47	0.23	0.03	−18
Education	0.51	0.26	0.03	−19
Time spent in public	0.53	0.28	0.02	0.19
Challenges < Skills (BOREDOM)	0.54	0.30	0.01	−11
Age	0.56	0.31	0.01	0.11

Note The regression was computed on the 107 individual mean scores based on 4,791 repeated measures

the amount of stagnation experienced. And after level of education (negative) and amount of time spent in public places, the sixth predictor is the proportion of time a person is bored (negative). The best predictor of a person's level of Activation-of how active, alert, and strong he or she feels over the week—is the frequency with which flow is reported. The flow variable is the first to enter the regression and accounts for 8 % of the variance in activation. Another 11 predictors explain only 21 % more of the variance; fifth among these is stagnation, again with a negative sign (Gianinno et al. 1979),

The Experience Sampling Method, which this and similar studies have used, makes subjective states accessible to systematic investigation. Specifically, the study referred to above showed that the level of perceived challenges and skills can be measured in ongoing everyday activities, and that the ratio between these two is an important component of the quality of life. Moreover, the pattern of results in Table 14.1 hints at a relationship between the self, the ability to be in flow, and the quality of experience, which is a topic that will be developed in more detail later.

The Subjective Experience of Flow

The fact that a certain ratio of information input, or a balance between challenges and skills, is involved in optimal experience seems quite clear. But this relationship does not say anything about what the experience is like from the inside, so to speak; about how it feels subjectively. To answer that question, we relied on extensive interviews with people who were likely to report optimal experiences (Csikszentmihalyi 1975, 1979, 1981a).

At first sight, it might seem that severe methodological problems must be involved in identifying optimal experience. The task is, however, not that difficult.

It is safe to assume that quality of experience is positively related to the probability of it being sought out regardless of external contingencies. In other words, a positive experience is its own reward; one keeps attending to it even if nothing else happens as a result.

Needless to say, most people's experience is not optimal, most of the time, by this definition. For instance, average workers said that they wanted to do whatever they were doing on the job only 17 % of the time their experiences were sampled (Csikszentmihalyi and Graef 1980; Rubinstein et al. 1980). Presumably the remaining 83 % of the time at work they attended to experience not because it was rewarding in itself but because extrinsic rewards like money or social pressures justified an experience that in and of itself was not worth having.

Nevertheless, there are situations in which people keep attending to information for intrinsic reasons. One plays, for instance, generally because the experience is enjoyable. There might be a variety of ulterior, extrinsic reasons motivating the activity, but even when these are absent people keep playing for the sheer fun of it, Art, creative work of any kind, sports, and religious practices also often provide this kind of self-justifying, optimal experience. Thus in our early studies we interviewed people involved in such activities to see if some common features were present despite the often glaring differences between activities like playing chess and playing basketball, composing music or climbing rocks.

The interviews confirmed the expectation that intrinsically rewarding experience is distinguished by common parameters regardless of the nature of the activity. Later investigations have found that these parameters apply to optimal experiences outside of leisure contexts; that they are present in those relatively rare instances when work is enjoyable, or when the classroom becomes engrossing (Csikszentmihalyi 1975, 1981a; Mayers 1978).

At the most abstract level, an optimal subjective state is experienced when conscious processes proceed in an ordered way, without inner conflict or interruptions. In other words, optimal experience is simply experience that flows according to its own requirements. It seems that when experience is ordered, it is self-contained or autotelic.

Most of the time inner states fall far short of this criterion. Everyday life constantly presents stimuli that need to be attended to, whether we like it or not. Order in consciousness is threatened by conflicting goals, unclear expectations, ambiguous desires. Most people most of the time feel constrained to alienate their experience—that is, settle for an inner state that is far from optimal, either just to survive or in the hope of more rewarding experiences in the future. Thus we tolerate the boredom of school, of work, of family life, in the expectation that sometime before we die we shall be rewarded with a blissful state of enjoyment.

Optimal experience stands out against this background of humdrum everyday life by excluding the noise that interferes with it in normal existence. Thus the first characteristic mentioned by people who describe how they feel at the height of enjoyment is a *merging of action and awareness*; a concentration that temporarily excludes irrelevant thoughts, feelings from consciousness. This means that stimuli outside the activity at hand have no access to consciousness; past and future cease

to exist subjectively. This continuous focus on the present produces a *distortion of time* perspective. Minutes seem to stretch for hours, or hours elapse in minutes: Clock time is replaced by experiential sequences structured according to the demands of the activity.

Deep concentration on the ongoing present is possible only because *the goals of the activity are clear.* Ambiguity and conflict, so typical of everyday life, are replaced by undivided intentionality. Not only are goals sharply defined, but *the means to reach them are also clear:* The rules of the game leave no doubt about what can or cannot be done. Finally, pursuit of the goal is helped by *clear feedback* which helps the actor adjust his or her behavior as the interaction proceeds.

Immersion in the activity produces as one of its consequences *a loss of self-consciousness.* There is neither need nor opportunity to reflect on oneself—the self as an object of awareness recedes while the focus of attention is taken up by the demands of the activity and by the responses given to them.

Although one often gets involved in activities that produce optimal experiences either accidentally or for extrinsic reasons, once a person has had a taste of the exhilaration produced by the ordered interaction, he or she will continue the involvement for intrinsic reasons. Thus optimal experience is *autotelic,* or intrinsically rewarding. With time it might become addictive. In any case, it is experienced as something one chooses to do freely and for its own sake,

These are the conditions that define a *flow experience,* as we came to call the well-ordered, fully functioning dynamic state of consciousness. They are generally found in most cases where a person describes his or her experience as optimal or intrinsically rewarding. We might call activities that tend to produce such experiences *flow activities.* It does not matter what the activity is. It could be a race for the runner, chess for the chess master, dance for the dancer; in each case the complexities and contradictions of the world are filtered out until only a limited set of well- ordered goals and means are left in awareness.

In everyday life, flow experiences occur in a great variety of contexts. To get a better sense of what these are, we interviewed 82 adult workers. Each person was read three quotations describing flow experiences, originally collected from a rock climber, a composer of music, and a dancer. After reading each statement, the respondent was asked whether he or she ever felt an experience similar to the one described in the quote. If the answer was yes, they were asked what they were doing when the experience occurred, and to estimate how often they had such an experience in the activity.

The three quotations were the following:

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

Table 14.2 Frequency of activities mentioned as having produced flow Experiences (N = 71 adults)

	Percent of Ss mentioning
1. Social Activities (Vacationing with family; being with children, wife, or lover; parties; traveling)	16
2. Passive Attending Activities (Watching TV, going to the theatre, listening to music, reading)	13
3. Work Activities (Working, electrical work, challenging problems at work)	31
4. Hobbies and Home Activities (Cooking, sewing, photography, singing, etc.)	22
5. Sports and Outdoor Activities (Bowling, golf, dancing, swimming, etc.)	18
	100

Note For each S, the one activity mentioned most often in response to the three quotes was selected

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."

As it turned out, 87 % of the respondents said they knew the feelings described in the above statements. Thirty percent reported that they experienced something like it less often than once a week; 40 % that they felt something like it every week, and 30 % reported that they experienced it daily. Only 11 respondents, or 13 % of the sample, could not identify with the experiences at all. Those who identified with one statement tended also to respond to the other two; the average correlation between the reported frequency of the three experiences was .58.

Contrary to expectations, the activity most often associated with flow experiences was work (see Table 14.2). One-third of the respondents said that the intense concentration, involvement, and loss of self-consciousness occurred most frequently when they were working. Next came more predictable hobbies like cooking or carpentry; then sports and outdoor recreations. Each of these was mentioned most often by about one-fifth of the respondents. Interpersonal relations were prime occasions of flow for 16 % of the sample, and 13 % singled out passive leisure-type activities as conduits for the flow experience. The variety of activities, ranging from solitary to gregarious, from physical to cognitive, from obligatory to voluntary, each of which is capable of producing the intense involvement of the flow experience, is the most impressive message of Table 14.2.

How frequently people reported experiencing flow was related to several aspects of their lives. If one looks, for instance, at the data obtained from the pager-induced self-reports of the Experience Sampling Method, one finds that those adults who claimed to have more frequent flow experiences also spent more

time on the job actually working ($r. = .38$, $p < .001$), and less time "goofing off" ($r. = -.26$, $p < .01$). Of the total 1,274 responses filled out while on the job, the 71 workers were actually working only in 828 instances, or 64 % of the time. The rest was spent daydreaming, chatting, or talking to co-workers about personal matters. But respondents who were above average on the reported frequency of flow spent about 25 min more each day actually working than the respondents who experienced flow infrequently. Assuming that time spent working results in increased productivity, and extrapolating this finding to the entire working force, one might conclude that the flow experience contributes tens of billions of dollars to the Gross National Product each year. To compensate for greater involvement in work, those who report more frequent flow spend significantly less time idling and socializing outside of work as well. What is perhaps more important, flow frequency has a significant inverse relationship to "wishing to be doing something else" in ten out of eleven main life activities (Csikszentmihalyi and Graef 1979). Thus subjective as well as objective involvement with one's actions is related to the ability to experience flow.

These results are somewhat counterintuitive, in that they suggest that hard work and involvement with life are related to a kind of experience that is typical of playful, intrinsically motivated activities. Apparently concentrated engagement is a trait that cuts across the work/leisure distinction. The capacity to experience flow seems to be an extremely important personal skill. At the same time, it is also clear that the way society structures action opportunities will affect the ease with which people may find optimal experiences in their daily lives.

Social Structure and Flow

The attraction of art, religion, sport, and science-of all the intrinsically rewarding action-systems developed by culture-is that they allow this intense concentration to occur by providing a self-contained world with clear limits. Within those limits consciousness can run loose without being challenged or interrupted by information with which it cannot cope.

Life is generally too unwieldy to make optimal experience possible. Thus historically a great deal of ingenuity has gone into making it more manageable by shaping it into self-contained systems of action and information. It is questionable, for instance, that science has improved the quality of life in any absolute sense, or whether it even has the slightest potential of doing so. But as a self-contained symbol system science is an excellent activity for providing optimal experiences to those who accept its rules and lose their consciousness in pursuing its byways. Science is good for the scientist, like religion for the mystic or art for the artist, because it provides a world in which to act with total concentration and thus experience order in consciousness.

A central task of any human community is to make flow experience available to its members within productive, prosocial activities. In many ways, hunting and

gathering societies seem to have been more effective than later cultures at making work and maintenance activities enjoyable (Firth 1929; Sahlins 1972). With the invention of farming, and even more during the past two hundred years since the Industrial Revolution restructured everyday survival tasks, people have had to work more while enjoying it less (Thompson 1963; Wallace 1978). Organized leisure has evolved to compensate for the dreariness of productive life. Whereas in past cultures art, music, dance, play, and religion were intertwined with serious work and could not be separated out of the matrix of everyday experience, now these activities have become trivialized therapeutic adjuncts to a "real" life which in its stark meaninglessness cannot justify itself any longer.

Confronted with barren work and empty leisure, many people turn to "cheap thrills" in their search for optimal experiences. The Balinese fascination with cockfighting, the Hiberian awe of the bullfight, our willingness to pay for spectacles of destruction in the boxing ring or the demolition derby are some instances of how instant immersion in a compelling activity can be accomplished. The "Russian roulette" theme in *The Deerhunter* is an excellent symbol of what might happen when a culture disintegrates: The only activity left that attracts people's attention long enough to forget the chaos of life and experience a semblance of order is the sight of a person methodically blowing his brains out.

For many teenagers, juvenile delinquency is the only activity that provides enjoyment. Compared to the dullness of school and home life, the attractions of burning down a school or stealing a car are often irresistible (Csikszentmihalyi and Larson 1978). To get a teenager to grow up, he or she must believe that becoming an adult is a worthwhile goal. If confusion and boredom are all one can look forward to, why bother? The 300 % increase in adolescent suicide rates over the past three decades suggests that more and more young people find the prospect of growing up less than persuasive. Others turn to drugs or "cheap thrills" in an effort to recapture optimal experience as they shuffle reluctantly into adulthood (Csikszentmihalyi 1981b).

Of course, such failures to provide optimal experience as part of the warp and woof of daily life is not unique to our time and place. Rome had to resort to the circus to spark up the graying lives of her citizens, and Byzantium made chariot-racing into a great popular placebo. Alienation from subjective experience is not a consequence of capitalistic social relations, as leftist theoreticians would like us to believe. It is not an exclusive malady of ruling castes and cultures, nor is it unique to contemporary technological conditions. It seems to happen every time the way of life of a group of people is disrupted, either by outside forces or by internal processes of development, to the extent that flow becomes more and more difficult to experience within the routines of everyday life.

It does not follow, however, that optimal experiences are more readily available in societies where life is comfortable, affluent, or pleasurable. Conceptually as well as empirically, pleasure and enjoyment are likely to be inversely related (Csikszentmihalyi 1982). Pleasure is a homeostatic experience following on the satisfaction of physiological needs. Enjoyment occurs typically as a result of activity that involves the use of skills in response to increasingly complex

challenges, and thus satisfied emergent needs. The function of pleasure is contentment, whereas enjoyment leads to change and growth.

Of course, homeostatic experiences are as necessary as, and certainly more eagerly sought after than, enjoyment. For instance, food, probably the earliest source of pleasure and reward, is still responsible for the best subjective times in the daily cycle of experiences. Of the dozen or so major activity categories, ''eating" is associated with the highest scores of self-reported happiness, cheerfulness, and satisfaction. Of the twelve most frequent types of thought people think about in an average week, thoughts about food are associated with the most positive self-reports (Graef et al. 1978; Csikszentmihalyi and Figurski 1982). During an average day, moods peak around mealtimes, resulting in a daily curve that looks somewhat like the Golden Gate bridge in profile.

Similarly, processes that produce homeostasis in consciousness by directly manipulating information seem to be more attractive than enjoyable experiences. Television is the major purveyor of pleasurable information in our culture. When watching TV people rate their subjective states more "relaxed" than at any other time of the day. They are also quite happy, cheerful, and satisfied. They say that they chose the activity freely. At the same time, they rate their level of cognitive and conative involvement lower than in any other activity. Self-reported concentration, control, alertness, strength, and activation are abysmal (Csikszentmihalyi and Kubey 1981). Adolescents describe their experiences in active leisure-for example, when playing sports or games-as very significantly more enjoyable than watching television. Yet they spend two and a half as many hours a week in front of the TV set as they do in active leisure (Csikszentmihalyi et al. 1977). Apparently the low level, predictable, undemanding information provided by television results in a soothing experience which for most people takes precedence over the more involving experiences produced by flow activities.

The contrast between comfortable pleasure on the one hand and often strenuous enjoyment on the other can best be seen in historical perspective. The early culture of the Puritans, renowned for shunning pleasure and levity, was in fact very effective in providing a lifestyle full of flow experiences for those who abided by its rules. Puritan culture created one inclusive goal to give order to all of life (i.e., salvation); it specified clear rules to obtain that goal (i.e., self-discipline); and it defined worldly success as the feedback by which progress toward the goal could be measured (Weber 1958). In other words, Calvin and his successors were able to reduce all of life to a do-able, internally consistent game. Those who followed its rules could process experience as ordered information and therefore were able to enjoy life even though they found no pleasure in it.

But the game the early Puritans Invented and played by choice soon turned into a burdensome necessity. As Weber wrote in the gloomily prophetic ending of his analysis of the Protestant ethic, what had been a freely chosen set of goals and rules became an "iron cage" constraining those who were born into it. "The Puritan wanted to work in a calling; we are forced to do so" (Weber 1958, p. 181). This petrification of flow activities appears to be a historical constant. Patterns of action are first institutionalized by free choice because they provide optimal

experiences; successive generations find those patterns already established and are bored by them (Berger and Luckmann 1967). The dialectic between freedom and necessity was described by Hegel as the alternation between what he called the "world as history" and the "world as nature." The founding fathers wrote the Constitution and designed the American political system as a spontaneous, creative act. They were making history. We face the Constitution and the government as external givens; almost as natural forces like the weather or like the force of gravity. Activities that were enjoyable to those who first created its rules may be tiresome to those who feel obliged to follow them.

Even though this is not why he said it, Jefferson was right in claiming that each generation must make its own revolution. Mao Tse Tung arrived at the same conclusion about the need for a permanent revolution. Politically their ideas are probably unworkable, but they point at a vital psychological need: namely, the necessity to restructure life activity to make optimal experiences possible.

Flow and the Self

The relationship between optimal experiences and the self is fraught with apparent paradox. On the one hand, the self is hidden during a flow experience; it cannot be found in consciousness. On the other hand, the self appears to thrive and grow as a result of such experiences. This anomaly, suggests that further exploration of the relationship might prove theoretically fruitful.

Experimental social psychology has amply documented the fact that objective self-awareness is an aversive experience. This has been explained in terms of self-awareness inevitably involving self-evaluation and a failure to live up to expected standards (Duval and Wicklund 1972; Wicklund 1975). In an earlier volume in this series, it was pointed out that self-awareness produces negative affect only when the discrepancy between the actual and the ideal states is unlikely to be reduced (Carver and Scheier 1981). In other words, the problem with focusing attention on the self is that it reveals depressing inadequacies.

A recent study using the Experience Sampling Method replicated outside the laboratory this negative association between self-awareness and affect, but found it contingent on whether the person was involved in a voluntary or obligatory activity. Self-awareness was associated with a negative experience only when the person felt he or she had freely chosen to do an activity. When doing something that had to be done, focusing attention on the self made no difference in the moods reported (Csikszentmihalyi and Figurski 1982). These findings suggest an alternative explanation for why being aware of the self is not a positive experience: because self-awareness interrupts involvement in an enjoyable activity. To explore this issue further, it might be helpful to develop a model of the self that will account for the findings.

The self shows itself as a pattern of information in consciousness; more specifically, it is information that stands for, or represents, the information-processing

organism itself. It is composed of past experiences strung together by acts of intentionality and shaped by feedback (Csikszentmihalyi and Rochberg-Halton 1981).

Being a pattern, the self requires inputs of energy to keep its order intact. Like consciousness itself, of which it is one of the contents, the self does not keep its shape unless appropriate information is constantly provided to perpetuate its existence. To put it in the simplest possible terms, the self survives by assimilating feedback to intentions.

Whenever a desire arises in consciousness and the self identifies with it, turning it into an intention, the stage is set for potential self-building feedback. If the intention is accomplished, the information will be incorporated into the self, which will appear to be that much stronger the next time it shows up in consciousness. Of course, if the intention fails, the feedback will usually result in a weakening of the self.

This constant interchange, which takes place below the threshold of awareness, results in the gradual modification of the self as the feedback to intentions moves from a positive to negative balance, or vice versa. Without intentions or without feedback, the self would cease to exist as an ordered pattern of information. This is the reason why religions that try to abolish the self prescribe giving up desires and purposeful actions. Renouncing worldly attachments is the central method used to destructure the self in Zen, Sufi, Yoga, Judeo-Christian, and several other spiritual traditions (Ornstein 1977, p. 135).

Most people in most cultures, however, learn to develop their selves rather than aiming to dismantle them. In fact, once a self system is established in consciousness, it will try to maintain itself and increase its power. It can do so by directing the energies of the organism to produce feedback congruent with its intentions.

If this is true, then attention turned inwards on the self tends not to be productive. Self-consciousness does not accomplish anything—it does not produce feedback. (There are some quite important exceptions to this statement, but they can be saved for a later treatment. The statement seems to be true most of the time, and for people who are not trained to use reflection in a systematic and constructive way. The exceptions would include philosophers, both natural and professional; artists; mystics, and psychoanalysts.) Paradoxically, when we focus attention on the self, by so doing we deprive it of the sustenance it needs.

By contrast, concentration on an activity produces feedback which nurtures the self. This is especially true if the activity is freely chosen, if it presents opportunities for complex interactions and allows the formulation of increasingly unpredictable intentions. As a result of such an activity- and assuming it was moderately successful—the self emerges strengthened from the evidence of its accomplishments. So the self gets lost when we search for it, and reveals itself when we forget it. Presumably this is the pattern hinted at by the first two rows of Table 14.1, where we see that a non alienated self and the ability to find flow are the best predictors of happiness. Another way to view this pattern is within Mead's conceptual framework. Attending to the self reveals the "me," or the self as object.

Strictly speaking, the "I" can never be found in consciousness. We can only sense it in action, so to speak; we know of it through its works. At best the "I" appears as a flicker at the periphery of vision as we pursue some difficult or improbable task. For only then is the "I," or the active, self-determining agency of the self, revealed.

In routine, determined, predictable activities there is no necessity to postulate the "I"; a "me" will do very well. In other words, as long as actions can be explained by outside forces or by probabilistic statements that apply to all men, or to all Americans living now, or to members of my profession, a freely acting self is an unnecessary assumption. By Ockham's law, it becomes superfluous and we need not consider it. Only when actions depart from expectations, when unlikely intentions are fulfilled, does an "I" become justified as an explanatory construct. In subjective experience at least, the free self becomes a reality when action bears witness to its existence.

After successfully coping with unlikely challenges, the "I" might reappear in consciousness as the "me," But it is a different "me" from what it had been before; it is now stronger and more competent (Smith 1968, 1978; White 1959).

In terms of this model, it might be easier to explain the hide-and-seek of the self in flow experiences. Intense involvement in a complex activity provides the most concentrated feedback for the nourishment of the self. The higher the challenges of the activity, the more unlikely it is that one can meet them and therefore the greater the experience of order that follows upon success. Enjoyment builds the self. But the self destroys enjoyment; that is, when we reflect on the self, the interaction is interrupted, concentration collapses, and the feedback stops. Thus in the long run self-awareness is inimical to the self, because it interferes with the flow of information that is necessary to maintain it.

Temporary Conclusions

In the hundred years since the first men assembled at Leipzig to study psychology systematically, much was learned about human behavior, the workings of the nervous system, and the symptomatology of mental disorders. But we still have very little solid knowledge about the dynamics of conscious experience, the *psyche* itself. Only in the past few years has the study of consciousness received a certain academic respectability (Ornstein 1977; Pope and Singer 1978).

Yet as I have tried to argue, the information unfolding therein constitutes our life and should therefore be at least of passing interest to students of humankind. Of all the information contained in consciousness, perhaps the most intriguing is the self, or the bundle of signs that represents the experience in experience.

The study of flow suggests that consciousness and the self are fragile structures of order that need constant inputs of information energy to expand or even to keep their form intact. The kind of information which can do this has certain common properties: it can be assimilated with neither too little nor too much difficulty;

it presents opportunities for interaction with clear goals, rules and feedback; it allows concentration without distraction or ambiguity.

Involved in such an ordered interaction system, consciousness flows without hindrance, bringing into play the "I," the active dimension of the self. Optimal experience is simply this freeing the organism to experience its own, freedom. In retrospect, as we look back on our life, these are the experiences that make living worthwhile.

One common misunderstanding about this theory (in the original meaning of the word, as a viewpoint, or encompassing sight, rather than in the contemporary meaning of a logical network of universal statements) is that by emphasizing the quality of experience it encourages a hedonistic, even decadent attitude. After all, as every thinker from Plato to Freud agreed, civilization is built on the harnessing of pleasure, on the postponement of gratification.

But the evidence suggests that this particular Gordian knot need not baffle us further: The old dichotomy was a false one. We might have to forfeit a certain amount of pleasure to accomplish complex tasks, but we need not forego enjoyment. And enjoyment rather than pleasure makes life rewarding. The pessimistic conclusions of former psychologies follow from the failure to distinguish between pleasure and enjoyment-the first homeostatic, conservative, and genetically limited; the second open, growth-producing, and evolutionary. It bears repeating that according to this perspective the hard-working dour Puritans must have enjoyed their lives much more than the playboys who spend their days between Cortina and Cozumel.

What would it take to develop this theory of enjoyment from being just a point of view into a useful scientific tool? First, the relationships described in this chapter should be stated in more formal ways. For instance: "The strength of the self will be directly proportional to the amount of enjoyment experienced." Or "The strength of the self will be inversely proportional to the amount of self-consciousness experienced." When an adequate number of such statements are generated, they must be related to each other and to statements derived from other psychological theories. It is essential, for instance, that the relationships predicated by this theory be reconciled with the regularities uncovered by even widely divergent explanatory systems such as behaviorism or psychoanalytic psychology. Finally, the conditions that set thresholds and limits to the theoretical relationships will have to be discovered and codified. It is clear, for example, that there are striking individual differences in the ability to derive enjoyment from information. Are these due to temperamental differences or to prior experience? Can they all be accounted for in terms of how the self is organized?

This kind of systematic appraisal of consciousness has not been started. Yet there is no scientific theory without a logical network of empirically validated statements. Will one be built in this field? It will if enough people have fun trying to build it.

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