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Optimal Experience in Work and Leisure

Mihaly Csikszentmihalyi and Judith LeFevre
Committee on Human Development, University of Chicago

Followed 78 adult workers for 1 week with the experience sampling method. (This method randomly samples self-reports throughout the day.) The main question was whether the quality of experience was more influenced by whether a person was at work or at leisure or more influenced by whether a person was in flow (i.e., in a condition of high challenges and skills). Results showed that all the variables measuring the quality of experience, except for relaxation and motivation, are more affected by flow than by whether the respondent is working or in leisure. Moreover, the great majority of flow experiences are reported when working, not when in leisure. Regardless of the quality of experience, however, respondents are more motivated in leisure than in work. But individuals more motivated in flow than in apathy reported more positive experiences in work. Results suggest implications for improving the quality of everyday life.

Leisure researchers usually choose one of three different ways of defining the phenomenon they are studying. Leisure is seen as discretionary time left free from obligations (Brightbill, 1960; Kelly, 1982), the pursuit of freely chosen recreational activities (Dumazedier, 1974; Roberts, 1981), or time spent in activities that provide intrinsically rewarding experiences (Neulinger, 1974; Iso-Ahola, 1980). Which definition a person adopts seems to depend more on disciplinary affiliation—for example, survey researcher, sociologist, psychologist, or social philosopher—than on a consciously articulated theoretical position.

Yet obviously it is questionable whether leisure as per the first definition is in any way the same as the leisure referred to in the second and third. To what extent is time free from obligations actually filled with recreational activities? And to what extent does either free time or recreation provide rewarding experiences? These are not idle questions, because from the Greeks onward interest in leisure has hinged on the assumption that free time, and especially recreation, is the source of the most rewarding experiences in life. If this link were not supported by the data, the student of leisure would need to confront a whole host of new issues.

However, these questions could not be answered with precision until a reliable method for measuring the quality of experience was developed. Researchers have traditionally relied on questionnaires or diaries to assess how people feel when they are involved in various activities. Although these instruments are very useful for a wide range of purposes, they are not ideal for recording fine discriminations in the quality of experience, for at least two reasons. In the first place, as they rely on retrospective recollection, they tend to miss the subtle, often idiosyncratic, and sometimes even contradictory dimensions of immediate experience. Second, as the experience is retrospectively reconstructed in a diary or a questionnaire, cultural definitions of the activity might come into play to distort the actual event.

A recent development in methodology has made it easier to collect data about people's thoughts and feelings in real-life everyday situations, and hence to obtain instantaneous records of the quality of experience in free time as well as in recreational activities. These records can in turn be compared with records obtained in work and other obligatory situations, thereby making it possible to know whether leisure in fact provides uniquely different experiences. The methodology in question is the experience sampling method, or ESM (Csikszentmihalyi, Larson, & Prescott, 1977; Csikszentmihalyi & Larson, 1987; Hormuth, 1986, Larson & Csikszentmihalyi, 1983). This method consists of providing respondents with an electronic pager and a block of self-report forms with open-ended and scaled items. Respondents wear the pager for a week, during which time they are paged about 56 times at random intervals. Whenever the respondent is signaled, he or she fills out a page of the booklet, indicating activity, location, and companionship, as well as describing the quality of the experience at the time on a variety of dimensions.

The ESM has already been used to study some aspects of the leisure experience, especially with samples of adolescents. Csikszentmihalyi et al. (1977) found great differences in how teenagers felt when viewing television as opposed to how they felt when involved in sports and games. The paradox presented by the results of this study has since been replicated in several different contexts; namely, that although teens experience active leisure as a much more positive experience than watching TV, they spend almost 10 times as many hours in the less enjoyable activity. Csikszentmihalyi and Kubey (1981) compared the experience of television viewing to other leisure activities among adults, and Larson and Kubey (1983) found distinctive differences between listening to music and watching television. A study by Graef, Csikszentmihalyi, and Gianinno (1983) showed that adults enjoy leisure activities only when these are perceived to be freely chosen, and Chalip, Csikszentmihalyi, Kleiber, and

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Judith LeFevre is now at the Andrus Gerontology Center, University of Southern California.

Correspondence concerning this article should be addressed to Mihaly Csikszentmihalyi, Department of Behavioral Sciences, University of Chicago, 5848 South University Avenue, Chicago, Illinois 60637.

Larson (1984) found similar differences among teenagers involved in various sports: the same sports were experienced more positively when controlled by teens than when controlled by adults. However, thus far no systematic comparison of leisure and work experiences has been carried out with the ESM. In this article, we address only some very simple questions, namely, to what extent is experience reported in obligatory activities (or work) different from experience reported in free time, particularly in such common recreational activities as reading, watching television, and talking with friends and family? Are optimal experiences more likely to be reported in obligatory or in free-time activities? And will whatever differences are found vary with the occupational level of the respondent?

Quality of Experience

To answer these questions, however, it is necessary to have a reasonable measure of the quality of experience. In the present research, we use two complementary ways of operationalizing how people feel. The first, based on flow theory, predicts that experience will be most positive when a person perceives that the environment contains high enough opportunities for action (or challenges), which are matched with the person's own capacities to act (or skills). When both challenges and skills are high, the person is not only enjoying the moment, but is also stretching his or her capabilities with the likelihood of learning new skills and increasing self-esteem and personal complexity. This process of optimal experience has been called *flow* (Csikszentmihalyi, 1975, 1982; Inghilleri, 1986b). Recent research that has applied the ESM to testing the flow model has confirmed that people tend to report the most positive subjective conditions when both perceived challenges and skills are high and in balance. In such a context, they report feeling more active, alert, concentrated, happy, satisfied, and creative—although not necessarily more cheerful or sociable (Carli, 1986; Massimini, Csikszentmihalyi, & Carli, 1987; Nakamura, 1988; Wells, 1988). Therefore, the first way to assess the quality of experience is by comparing the frequency of high-challenge, high-skill (flow) reports in the contexts of work and of leisure.

The second way we assess the quality of experience is through more traditional variables, such as measures of happiness, creativity, strength, satisfaction, and motivation. In previous ESM studies, two major clusters of "moods" have repeatedly been identified. These correspond to the 1st two factors that Osgood, Suci, and Tannenbaum (1957), as well as many others, have also found to characterize meanings (Lang, 1984): namely, an *affect* or hedonic valence factor (i.e., the variables happy, cheerful, sociable, satisfied) and a *potency* or arousal factor (i.e., active, alert, strong, excited, etc.). The intercorrelation of items in these two factors when measured by the ESM is typically quite large, and about one fourth the variance between the two factors usually overlaps. When a person's mean on such items for the first half of the week is correlated with the mean based on responses for the second half, the median correlation coefficient ranges from .60 for adolescents ($N = 75$) to .74 for adults ($N = 107$). In a study of 27 adolescents tested 2 years apart (Freeman, Larson, & Csikszentmihalyi, 1986), the correlation between the Affect scales averaged over the week at Times 1 and 2 was .77 ($p < .001$); between the Potency scales, it was .62 ($p < .001$). Thus, these dimensions of experience are fairly stable at least over a span of 2 years.

In addition to affect and potency, the quality of experience also depends on the levels of *cognitive efficiency* (e.g., concentration) and *motivation* (e.g., wishing to do what one does). These dimensions are less homogeneous and less related to each other, but they appear to add appreciably to the overall positive quality of experience (Csikszentmihalyi & Larson, 1984).

Finally, we also included the self-rating dimensions creative versus dull, satisfied versus dissatisfied, and tense versus relaxed because we expected these variables to tap important differences between work and leisure experiences. More detailed treatments of the psychometric characteristics of the ESM as a measure of the quality of experience can be found in Larson and Csikszentmihalyi (1983), Csikszentmihalyi (1986), Hormuth (1986), and Csikszentmihalyi and Larson (1987).

Given these ways of operationalizing the dependent variable, we can state the questions addressed in this article as follows: Are conditions conducive to flow (i.e., high challenges and high skills) more likely to occur in leisure or at work? Is the quality of experience as measured by happiness, cheerfulness, and so on higher in flow or in nonflow contexts? Is the overall quality of experience different in work and in leisure? Does occupation affect the quality of experience? A final question, not anticipated when the study began, presented itself after we inspected the first correlation matrixes. The pattern of data showed that approximately half the respondents rated their motivation as above average when in flow, whereas the other half did not. Assuming that this pattern reflects a personality difference in preference for high-challenge, high-skill situations, we asked whether work was experienced differently by people who are motivated in flow.

Method

Sample

The respondents were workers recruited from five large companies in the Chicago area that agreed to cooperate in a study of work satisfaction. The study was described at company assemblies to a total of 1,026 workers. Of these, 44% volunteered to participate. Proportionately more skilled than unskilled workers volunteered (75% and 12%, respectively). From the volunteers, we selected 139 representative respondents to participate, 107 completed the study. (For a more complete description of the sampling procedure, see Graef, 1978.)

The original sample included workers in management and engineering (27%), clerical (29%), and blue-collar (44%) jobs. About half (53%) of the subjects were married, 31% were single, and 16% were separated or divorced. The respondents' ages ranged from 19 to 63 years (mean age = 36.5 years), and most (75%) were White; 37% were male and 63% were female. Therefore, this group represented a diversified sample of workers whose responses are presumably typical of average urban American adults. Although the proportion of respondents of each sex differed by job, we could not test the effects of gender because there were too few female managers and too few male clerical workers. However, there were no sex differences when we compared a subset of men and women matched for job, marital status, age, and race.

Procedure

To investigate the quality of experience during the course of everyday life, we used the ESM (Csikszentmihalyi & Larson, 1987; Csikszentmi-

halyi et al., 1977; Larson & Csikszentmihalyi, 1983). As in other ESM studies, we obtained self-reports from each respondent throughout the day for a week. Respondents carried electronic paging devices (or "beepers" such as those doctors carry) that emitted seven daily signals or "beeps". Radio signals were sent randomly within 2-hr periods from 7:30 A.M. to 10:30 P.M. Thus, approximately 56 signals were sent out during the week. An average of 44 responses per person were completed, for a total of 4,791 responses (85% of all signals sent). Missed signals occurred because of mechanical failure of the pager, or because the respondents turned the pagers off in situations in which they did not want to be disturbed. Ninety-nine percent of the responses were given within 20 min of the signal.

When a signal occurred, respondents were instructed to immediately fill out 1 page of a response booklet (Experience Sampling Form, or ESF) that they carried with them. It took 1–2 min to fill out a page of the ESF. The ESF included items asking about current challenges and skills (to identify flow), about the quality of experience, and about the kind of activity engaged in at the moment of the signal.

Challenges and skills. On the ESF, respondents were asked to rate the challenges of the activity and their skills in the activity using 10-point scales ranging from *none* to *very high.* To minimize individual response bias, we transformed each subject's responses into individual z scores. Then we used the z scores to determine which of four challenge and skill contexts the subjects were in. These contexts were defined in terms of the balance of challenges and skills and on the basis of the model generated by the flow theory (Csikszentmihalyi, 1975; Csikszentmihalyi & Nakamura, 1986; Massimini et al., 1987):

1. The flow context: Both challenges and skills are greater than the respondent's average.
2. The anxiety context: Challenges are greater than the respondent's average, and skills are less than his or her average.
3. The boredom context: Challenges are less than the respondent's average, and skills are greater than his or her average.
4. The apathy context: Both challenges and skills are below the respondent's average.

For most analyses in this article, the flow context (1) has been contrasted to nonflow situations (Contexts 2, 3, and 4).

Quality of experience. Quality of experience was measured by 12 additional items on the ESF that asked about the respondent's psychological state. As previously described, we transformed each response into individual z scores to control for response bias. Then we created the Affect and Potency scales from eight items (7-point Likert scales), on the basis of previous research (Csikszentmihalyi & Larson, 1984) and confirmatory factor analysis. The four items making up each scale were averaged. Affect included the items happy–sad, cheerful–irritable, friendly–hostile, and sociable–lonely. Potency included the items alert–drowsy, strong–weak, active–passive, and excited–bored. (On the ESF, the positive and negative poles of the adjective pairs were randomly alternated.)

In addition, we also measured motivation, concentration, creativity, satisfaction, and relaxation, as these dimensions of experience have often emerged as important components of the quality of life. We assessed motivation with the item "When you were beeped . . . Did you wish you had been doing something else?" This item was scored on a 10-point scale ranging from *not at all* to *very much;* a lower score indicated higher motivation. Concentration was also scored on a 10-point scale ranging from *very low* to *very high.* Creativity, satisfaction, and relaxation were measured by the 7-point Likert scales Creative–Dull, Satisfied–Resentful, and Relaxed–Tense, respectively.

Current activity. The activity was determined from response to the item "What were you doing?" Each response was coded into 1 of 154 activity categories such as seeing the doctor, typing, or preparing a meal (intercoder reliability = 86%). We reduced these detailed categories to 16 broader categories (intercoder reliability = 96%). The work category included all instances when respondents indicated that they were actually working on the job (e.g., writing a report, filing, meeting with coworkers, etc.). When respondents indicated that they were *not* working while at the job (e.g., socializing with coworkers, taking a coffee break, etc.), the responses were not included. The leisure category included activities such as watching television, daydreaming, socializing, games and sports, reading, writing letters, and so forth when respondents were not at their jobs. The work and leisure categories accounted for about half of the total responses (see Table 1). The other half included such activities as driving, socializing on the job, eating, and various chores.

Debriefing. At the end of the study week, respondents were debriefed in a final interview. Ninety percent of the workers said that their reports captured well what had happened during the week. Furthermore, 68% said that participating in the study did not disrupt their daily routine or annoy them, even by the end of the week, which suggests that the study was not overly intrusive.

Analysis

Differences in the amount of time spent in flow were tested with univariate analysis of variance (ANOVAs). Associations among the dependent variables were tested at the signal level (each report was treated as an observation) with the Pearson product–moment correlation. Variation in the quality of experience (affect, potency, concentration, creativity, motivation, satisfaction, and relaxation; individual means were the unit of analysis) was assessed with ANOVAs in which occupation was the independent variable and channel (flow–nonflow) and activity (work–leisure) were repeated measures. In these analyses, we included only those 78 respondents who had more than one response in both flow and nonflow contexts, in work as well as in leisure situations. This subsample generated 3,432 observations. Finally, personality differences in the quality of experience during work between workers more motivated than average in flow and those more motivated in apathy were tested with ANOVAs. Motivational group was the independent variable, and channel (flow–nonflow) was a repeated measure. For these analyses, we included 82 workers, as 42 had above-average mean levels of motivation in flow, and 40 had above-average mean levels of motivation in apathy.

Results

Frequency of Activities

Because experience was randomly sampled throughout the day, the percentage of time spent in each activity could be calculated from the percentage of total beeps. The three groups of workers spent similar amounts of time in various daily activities (see Table 1). Managers and blue-collar workers both spent about 30% of the day working, whereas the clerical workers worked only about 23% of the day. It is important to note that these figures refer to time actually spent working on the job; one third of the time on the job for clerical workers, and one fifth of the time on the job for blue-collar workers was spent in activities other than work.

The three occupational groups spent almost identical amounts of time (20%) involved in leisure activities. The largest single component of leisure was watching television, followed by socializing with people and by reading. Together these three activities accounted for more than two thirds of all leisure activities.

Amount of Flow in Work and Leisure

The next question we addressed was whether situations characterized by high challenges and high skills were more likely to

Table 1
Proportion of Time Spent in Various Activities

Activities	Manager ($N = 28$)	Clerical ($N = 32$)	Blue-collar ($N = 18$)
Working	29.2	23.0	30.2
Leisure	21.0	21.4	19.1
Reading	5.1	3.2	2.2
Daydreaming	1.8	1.9	1.3
Active leisure	2.0	2.0	2.1
Socializing	3.8	8.1	5.2
Television viewing	8.3	6.2	8.3
Other	49.8	55.6	50.7
Transportation	8.0	6.2	8.0
Not working at work	9.7	10.1	6.9
Eating	5.5	4.4	5.5
Chores	6.9	7.2	6.5
Resting	5.2	4.6	7.8
Shopping	1.0	1.7	1.0
Self-care	3.1	4.1	3.4
Miscellaneous	10.4	17.3	11.6
Total	100.0	100.0	100.0

Note. Each percentage point is equivalent to approximately 1 hr per week spent in the activity. Total number of observations was 3,432.

occur in work or in leisure contexts. Contrary to expectations, these flowlike situations occurred more than three times as often in work as in leisure (work, 54% of the time; leisure, 17% of the time; $F = 89.9$, $p < .0001$).

The occupational groups differed only in the amount of time spent in flow in work but not in leisure, with the managers spending more time at work in the optimal state (managers, 64%; clerical workers, 51%; blue-collar workers, 47%; $F = 3.28$, $p < .05$).

When the time spent in flow at work and in free time was broken down into the activities that the workers were engaged in, the occupational groups differed in the five most frequent activities during work, but did not differ in free time activities (see Tables 2 and 3). The greatest contributor to flow at work for managers was "talking about problems" and "doing paperwork," although paperwork accounted for an even greater proportion of nonflow experiences. In general, challenging as opposed to routine activities contributed to flow. For clerical workers, these included "typing"; for blue-collar workers, "fixing equipment" and "working on computer."

When not at work, the three occupational groups were much more similar to one another. The largest source of flow for all three groups was "driving" (which was not included among the leisure activities) followed by "talking to peers and family." "Watching TV" contributed to between 6% and 9% of the flow experiences in free time; however, it contributed even more (15%–25%) to the nonflow experiences.

It is important to keep in mind that these proportions are intended simply to indicate the direction of a trend, not to be taken literally. How much time a person spends in flow depends on how strict a definition of flow one wishes to use. Extremely intense and complex flow experiences probably occur at best only a few times in a lifetime. By our present definition, every time a person scored above his or her personal mean level of

Table 2
Flow and Nonflow at Work: Most Frequent Activities by Occupation

	Flow time at work accounted for by activity (%)	Time not in flow at work accounted for by activity (%)	Difference
Manager ($N = 28$, reports = 418)			
Talking about problems	9.8	5.2	4.6
Doing paperwork	9.5	20.1	−10.6
Fixing equipment	8.7	7.8	.9
Preparing assembly work	8.0	5.2	2.8
Writing reports	7.2	3.9	3.3
Other	44.8	57.8	−13.0
Total	100.0	100.0	
Clerical ($N = 32$, reports = 492)			
Typing	15.2	7.7	7.5
Sorting, filing	11.7	20.4	−8.7
Writing, keypunch	7.8	7.2	.6
Phone	8.6	9.8	−1.2
Research, checking	5.1	8.1	−3.0
Other	51.6	46.8	4.8
Total	100.0	100.0	
Blue collar ($N = 18$, reports = 347)			
Assembly work	39.4	63.2	−23.8
Fixing equipment	20.6	5.5	15.1
Computer	11.5	3.8	7.7
Moving things	5.5	4.9	.6
Stacking, shelving	4.8	3.8	1.0
Other	18.2	18.8	−0.6
Total	100.0	100.0	

Table 3
Flow and Nonflow in Free Time: Most Frequent Activities by Occupation

	Flow time accounted for by activity (%)	Time not in flow accounted for by activity (%)	Difference
Manager (N = 28, reports = 645)			
Driving	20.9	8.8	12.1
Talking (peers & family)	19.0	18.1	0.9
Walking	13.9	9.9	4.0
TV	7.0	21.1	−14.0
Talking (stranger or boss)	7.0	1.8	5.2
Other	32.2	40.3	−8.1
Total	100.0	100.0	
Clerical (N = 32, reports = 926)			
Talking (peers & family)	23.0	23.5	−0.5
Driving	23.0	5.7	17.3
TV	6.3	15.6	−9.3
Walking	7.9	12.8	−4.9
Trying to sleep	5.2	8.2	−3.0
Other	34.6	34.2	0.4
Total	100.0	100.0	
Blue collar (N = 18, reports = 490)			
Driving	26.2	8.1	18.1
Talking (peers & family)	17.7	15.6	2.1
TV	8.5	25.0	−17.5
Trying to sleep	8.5	15.0	−6.5
Walking	6.2	6.1	0.1
Other	32.9	30.2	2.7
Total	100.0	100.0	

challenges and of skills at the same time, he or she was assumed to be in flow. It is in light of this very liberal definition that the figures we quote must be interpreted.

Flow and the Quality of Experience

Even though conditions conducive to flow are more likely to occur at work than during leisure time, several questions remain: Do the quality of experience variables (happiness, potency, satisfaction, motivation, etc.) covary and are they more positive in the flow context? Or are they more influenced by the nature of the activity, that is, work or leisure? Finally, is the quality of experience affected by occupation or personality?

The patterns of relationship for the quality of experience variables were generally the same in flow and nonflow in both work and leisure. The strongest associations were, first, between the variables measuring potency and those measuring creativity (mean r = .50) and affect (mean r = .44), and second, between affect and satisfaction (mean r = .57) and relaxation (mean r = .51). Affect and concentration were not associated in any context. These coefficients are the average of 12 correlations (i.e., 3 occupational groups × 2 flow–nonflow × 2 work–leisure settings), each averaging 280 reports; hence, all p values are less than .001.

The quality of experience is strongly influenced by whether a person was in flow or not, regardless of whether he or she was working or at leisure (see Table 4). In general, flow explained a considerably larger proportion of the variance than activity did. Whether people are happy or not, whether they feel strong or weak or creative or dull, whether they concentrate or not, and how satisfied they are depends much more on the relative balance of challenges and skills than on whether they are at work or in leisure. The only exceptions to this pattern were motivation and relaxation: for these variables a much greater proportion of the variance was explained by activity than by flow.

Affect, potency, concentration, creativity, satisfaction, and motivation were all higher in flow than in nonflow (see Table 5). For affect, the effects were generally not very large, with people being on the whole most happy in leisure flow and least happy in work nonflow. Satisfaction followed the same pattern, except in a more pronounced way. For potency, concentration, and creativity, all occupational groups reported higher than average levels during work flow (all comparisons $p < .02$), and managers and clerical workers also reported higher levels during leisure flow (all comparisons $p < .04$). In contrast, relaxation was higher during leisure than work, regardless of whether people were in flow or nonflow.

There were some interaction effects between flow and activity. Managers reported the highest level of potency in work flow, whereas clerical and blue-collar workers reported the highest level in leisure flow. Managers and blue-collar workers also reported the lowest levels of creativity in leisure nonflow, whereas clerical workers reported the lowest levels of creativity during work nonflow.

As mentioned previously, the level of motivation reported by respondents follows a different pattern than that of the other variables. Although flow improved motivation in comparison with nonflow (ANOVA $F = 6.1, p < .02$), whether one was working or in leisure ($F = 61.7, p < .0001$) was a much more important factor than whether one was in flow or not. Leisure responses were always higher on motivation than work responses, and even leisure nonflow responses were higher than average for all three occupational groups. In contrast, work nonflow responses were lower than average for all three groups.

For managers, the highest motivation was in leisure–flow, followed by leisure–nonflow. For clerical workers, the level of motivation was equally high in leisure whether in flow or nonflow. For blue-collar workers, the highest motivation was actually reported in leisure–nonflow. In all three occupational groups, work–flow was more highly motivated than work–nonflow. We cannot tell with certainty whether these differences in response to a single question assessing motivation correspond to genuine differences in how workers experience their jobs. However, the pattern is suggestive and warrants further replication.

Although none of the three groups of workers had positive levels of motivation during work, those individuals who were more motivated in flow differed strikingly in the quality of experience while working from those who were more motivated in apathy (see Table 6). Despite spending similar amounts of time working and being in flow while working, those workers who were more motivated in flow reported being happier and feeling more potent, more satisfied, and more relaxed while working. In contrast, workers who were more motivated in the apathy

Table 4
Analysis of Variance: Effects of Activity and Flow on the Quality of Experience

Dependent variables (quality of experience)	Activity *F* value (work vs. leisure)	Flow *F* value (flow vs. nonflow)	Interaction *F* value (activity vs. flow)
Affect (happy, cheerful, friendly, sociable)	2.4	11.1**	2.2
Potency (strong, active, alert, excited)	4.7*	116.0***	9.4**
Concentration	5.8*	104.6***	3.1
Creativity	11.6**	80.3***	0.2
Motivation	61.7***	6.1*	6.7*
Satisfaction	3.8	21.2***	0.2
Relaxation	5.4*	0.7	1.5

* $p < .05$. ** $p < .01$. *** $p < .0001$.

context experienced drops in affect, satisfaction, and relaxation to levels significantly below their average while working.

Because the two groups did not differ by demographic characteristics (occupation, education, sex, race, age, or marital status; Pearson chi-square test and Student's *t* test all *ns*), these differences suggest that individuals who are motivated in high-challenge, high-skills situations feel more positively about working. This trait seems to reflect what has been described as the "autotelic personality" (Csikszentmihalyi, 1975), or the tendency to experience challenging situations as rewarding.

Discussion

Leisure is not as uniformly enjoyable as it is generally assumed to be. Commonsense assumptions notwithstanding, the most positive experiences in people's lives seem to come more frequently from work than from leisure settings. The most uniformly positive free-time experience (i.e. driving a car) is not, strictly speaking, a leisure activity.

How one experiences work and leisure changes dramatically depending on whether one is or is not approximating the conditions of flow. When a person perceives that both the opportunities for action and the skills in the situation are high, then the quality of experience is likely to be highly positive, regardless of whether the activity is labeled *work* or *leisure*. Conversely, when both challenges and skills are low, then the experience tends to be very negative both in work and in leisure.

Contrary to what one might expect, the great majority of flowlike experiences in the lives of average adults seem to come from work, not from leisure. This is true not only for people working in higher level jobs, but also for blue-collar assembly-line workers. Whereas leisure activities meet the conditions of flow (i.e., high challenges and high skills) less than 20% of the time, work does so from 47% of the time for blue-collar workers to 64% of the time for managers. It is astonishing that for most people the greatest amount of flowlike experience in free time comes from driving. Apparently a feeling of using one's skills in a challenging situation is difficult to achieve outside of work, except behind the wheel of a car. The next largest source of flow in free time is simply talking to friends and family.

The pattern of highly positive experience in flow, and negative experience in nonflow, regardless of whether one works or whether one spends time in leisure, applies to most dimensions of experience such as happiness, strength, concentration, and creativity. There are, however, two significant exceptions. Motivation and relaxation are much less sensitive to flow conditions and depend instead on the sociocultural labels that make an activity either work or leisure.

We have, then, the paradoxical situation of people having

Table 5
Quality of Experience in Work and Leisure and Flow and Nonflow

	Flow			Nonflow		
	Manager ($N = 28$)	Clerical ($N = 32$)	Blue-collar ($N = 18$)	Manager ($N = 28$)	Clerical ($N = 32$)	Blue-collar ($N = 18$)
Work						
Affect	−.04	.02	.04	−.14	−.09	−.12
Potency	.35**	.15*	.20*	−.09	−.10	−.10
Motivation	.02	−.19	−.46**	−.31*	−.67***	−.77***
Concentration	.66***	.51***	.31**	.04	−.08	−.14
Creativity	.65***	.38**	.30*	−.04	−.33***	.04
Satisfaction	.03	.03	.02	−.25*	−.22*	−.22
Relaxation	−.29**	−.10	−.03	−.15	−.06	−.24
Leisure						
Affect	.15	.21*	.13	−.05	.01	−.20*
Potency	.29**	.28**	.21	−.40***	−.22***	−.40***
Motivation	.38**	.35**	.02	.15*	.28***	.22**
Concentration	.52**	.40**	.31	−.37***	−.28***	−.38**
Creativity	.24*	.36**	.25	−.46***	−.12*	−.43***
Satisfaction	.21	.11	.22	−.10	−.02	−.24**
Relaxation	−.15	.04	.00	.22*	.20*	−.11

Note. Values represent average *Z* scores. The *p* values show the significance of the difference from the mean.
* $p < .05$. ** $p < .005$. *** $p < .0001$.

Table 6
Quality of Experience While Working: Workers Motivated in Flow Versus Motivated in Apathy

Dependent variables (quality of experience)	Motivated in flow ($N = 42$)	Motivated in apathy ($N = 40$)	F	p
Affect	.02	−.18**	8.31	.005
Potency	.16***	.03	5.66	.02
Concentration	.36***	.31***	0.40	*ns*
Creative	.20*	.12	0.55	*ns*
Satisfied	.04	−.27***	18.74	.0001
Relaxation	.08	−.28***	7.42	.008

Note. Values represent average Z scores. Asterisked p values show the significance of the difference from the mean.
* $p < .05$. ** $p < .001$. *** $p < .0001$.

many more positive feelings at work than in leisure, yet saying that they "wish to be doing something else" when they are at work, not when they are in leisure. Apparently, the obligatory nature of work masks the positive experience it engenders. In deciding whether they wish to work or not, people judge their desires by social conventions rather than by the reality of their feelings.

Needless to say, such a blindness to the real state of affairs is likely to have unfortunate consequences for both individual well-being and the health of society. Following the cue of their motivation, people will try to do more of those activities that provide the least positive experiences and avoid the activities that are the source of their most positive and intense feelings. At the societal level, this trend will add up to a continuing exodus from productive activities in favor of leisure.

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 nonflow 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. Yet cross-cultural studies suggest that at least in some traditional societies, men and women whose work is much more demanding than that of our U.S. sample manage to spend their free time in flowlike activities. After working dawn to dusk in the fields, traditional farmers often spend their free time at home weaving, carving, playing musical instruments, and engaging in other forms of active leisure (e.g., Inghilleri, 1986a, for Thai villagers; Delle Fave & Massimini, 1988, for European Alpine communities). Thus, the lack of flow in leisure is unlikely to be caused by physical exhaustion; more likely, it is due to inability to organize one's psychic energy in unstructured free time. This inability, in turn, may be due to the lack of an autotelic personality trait, that is, a dislike for challenging situations that require skilled performance. It may also be due to cultural factors, such as lack of socialization in flow activities or perhaps overreliance on television and other media, that makes people less able to engage in active leisure.

There are two lines of intervention that suggest themselves for improving these conditions. In the first place, if people were to become aware of how many negative feelings they experience when their free time does not meet the conditions of flow, they could improve the overall quality of their lives with a more conscious and more active use of leisure. There is no reason to be miserable in one's free time when the possibility of matching challenges and skills is under one's own control and is not limited by the obligatory parameters of work. Yet, at present, most leisure time is filled with activities that do not make people feel happy or strong.

Second, if people realized that their jobs were more exciting and fulfilling than they had thought, they could disregard the cultural mandate against enjoying work and find in it a satisfaction that at present seems to be denied by the fact that people think of it as obligatory. It is highly probable that if people admitted to themselves that work can be very enjoyable—or at least, more enjoyable than most of their leisure time is—they might work more effectively, achieve greater material success, and in the process also improve the quality of their own lives. The fact that people who report high motivation in flow enjoy their work more than people who report high motivation in apathy suggests that an autotelic personality trait may mediate the ability to find satisfaction in work.

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