Chapter 16
Recreate or Create? Leisure as an Arena for Recovery and Change

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A good life requires not only the possibility, but the realization of leisure. At least that was what Aristotle believed, and following Plato and other thinkers in Ancient Greece, he had a significant place for leisure in his scheme of thought (Kelly, 1990). In the Aristotlean approach, freedom from ordinary labor was necessary to build character. To actualize one's potentials a person needs freedom to engage in fulfilling activities, which generates not only pleasure but also virtue in a person. A strong emphasis on change toward self-fulfillment is normally connected with Aristotle's theory of developing virtues and character, since he defined all motion as the actualization of potentials. Hence, he seems to have argued that change is needed for humans to reach their respective goods or ends (Gewirth, 1998).

Today, the Greek ideal is confronted with views from a Protestant work ethic, which devaluates leisure and consider it as either useless or, at best, as time humans (unfortunately) need to recover from work, school, or other obligations (e.g., Haworth, 1997). The focus on leisure as recovery has partly to do with an increased number of job stressors and the feeling many people have of being overworked, which, among other things, stems from increased job demands following the high level of efficiency of modern work life (e.g., Evans, Gideon, & Barley, 2004; Schor, 1993). Besides the increased attention toward the restorative function of recreation, another reason why the virtues elements of leisure is downplayed in modern times, is that work life for many people represents an opportunity for self-fulfillment, or at least that is what many of us like to believe (Gardner, Csikszentmihalyi, & Damon, 2001). We do not need to spend our leisure time for self-fulfillment if we have appropriate growth opportunities at work.

The two main dimensions of leisure, i.e., recovery and change (often referred to as personal growth), are well known to students of positive psychology. For instance, Ryan and Deci (2001) argue that research on well-being has been derived from either a focus on happiness in terms of pleasure attainment (the hedonic approach) or from a focus on meaning and self-realization that defines well-being in terms of the degree to which a person is fully functioning (the eudaimonic approach).

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R. Biswas-Diener (ed.), *Positive Psychology as Social Change*,
DOI 10.1007/978-90-481-9938-9_16,

The usefulness of making a distinction between two ways of being happy has been discussed elsewhere (see Kashdan, Biswas-Diener, & King, 2008, and the papers commenting upon this target article) and will not be elaborated in the current chapter. The taxonomy is mentioned to help readers connect the recovery aspect of leisure (reflecting, as further clarified below, many characteristics attributed to hedonic well-being) and the change aspect of leisure (reflecting many characteristics attributed to eudaimonic well-being) to the general literature of positive psychology.

I will deal with some particular tensions between recovery and change in a subsequent section. To prepare the reader for that debate, I will first comment briefly on some definitional issues regarding leisure, recovery, and change, and also give a general review of how leisure may connect with positive emotions and life satisfaction. To anticipate, the chapter concludes that leisure is an important source of emotional well-being that also contributes substantially to life satisfaction and overall happiness.[1]

In contrast to some popular theories in positive psychology, the assumption of the current chapter follows those of the theory of Functional Well-Being (e.g.,Vittersø, Søholt, Hetland, Thorsen, & Røysamb, 2010; Vittersø, 2010), claiming that change and personal growth are rarely experienced as pleasant. To clarify this point, a distinction is made between feeling states such as pleasure and happiness on the one hand, and feeling states such as engagement and interest on the other. Engagement is often a non-pleasant state of approach motivation, enabling the experiencer to execute the behavior needed to reach an important goal, even if giving it up would be more pleasant at the moment. In principle, leisure time offers the best opportunities for balancing the pleasures of recovery and goal fulfillment with the engagement needed to override the lack of pleasure that normally accompanies the process of personal growth and the development of skills.

Defining Leisure, Recovery, and Change

Following Csikszentmihalyi and LeFevre (1989), leisure can roughly be sorted into one of three categories of definitions. First, it may be defined as any time that is free, which usually means any time left free from obligations. A second way of defining leisure is to relate it to a specific activity that is freely chosen, such as playing bridge or tennis. Finally, a third category of definitions is based on the subjective experience of the individual, which means time that provides intrinsically rewarding experiences. Some researchers also make a distinction between leisure and recreation, saving the former for an overall human phenomenon in its own right rather than a leftover after work or school. Recreation, on the other hand, may be

[1] I treat life satisfaction and overall happiness as synonyms in this chapter because they both reflect a general evaluation of the degree to which life as a whole is favorable. I do, however, stress the distinction between satisfaction and happiness as an overall evaluation versus satisfaction and happiness as feeling states experienced in concrete situations. At the level of state experiences, I also consider satisfaction to be a feeling.

considered as more specific, more organized, and more related to restoration of mind and body (Kelly, 1990). I acknowledge that the difference between the two concepts sometimes is meaningful and important, but will nevertheless use the two terms interchangeable in the current chapter.

Any of the three groups of definitions make leisure relevant for positive psychology in two principal ways. First, the mere existence of leisure in a person's life is conductive to positive experiences and life satisfaction. This perspective is reviewed in the first section below. Another way in which leisure involves positive psychology concerns the very key elements of a good life. Leisure presents itself as a suitable case study for the investigation of mechanisms that generally are involved in human well-being. By understanding that which makes particular leisure activities valuable, studies of recreation may enable the field to learn more about how quality of life may be improved. A separate section of this chapter will investigate these elements of leisure, focusing in particular on opportunities for recovery and positive change.

Recovery is, in the current chapter, simply taken to mean a return to a homeostatic set point (e.g., Berntson & Cacioppo, 2000) or a mental baseline (Bonanno, 2009). It is assumed that recovery is experienced as pleasant and satisfactory, and that the regulation of homeostatic recovery basically is hedonically driven (e.g., Cabanac, 2010). The principle of hedonic regulation will be further detailed in the subsequent section entitled "Leisure and positive change."

Change normally refers to reorganization of the structure of a system (Valsiner, 1997), and can turn in a desired or an undesired direction. For example, in the terminology of life span psychology, Staudinger and Lindenberger refer to the former as a developmental gain, and the latter as a developmental loss (Staudinger & Lindenberger, 2003). In positive psychology, the idea of changes in human beings will first and foremost be associated with desirable or positive developments. Although the term "change" is seldom used or defined in psychology, synonyms or related concepts such as personal growth, self-actualization, flourishing, positively functioning, intrinsically motivated or fulfilling one's potentials or capabilities are commonly in use in the literature (Aspinwall & Staudinger, 2003; Dweck, 2000; Keyes & Haidt, 2003; Lane, 1996; Magnusson & Mahoney, 2003; Ryan, Huta, & Deci, 2008; Ryff, 1989; Vittersø, 2004; Waterman, Schwartz, & Conti, 2008). Few, if any, of these concepts are clearly defined and the term change will consequently be used very approximately in the present text basically as a synonym for the (equally unclear) concept of personal growth.

The Effects of Leisure on Well-Being

Early studies tended to show that the kinds of activities that affect people's mood in a positive direction first and foremost are leisure activities (Argyle, 2001). For example, Lewinshon and Sotlib (1973) discovered that the most pleasant activities listed by the participants in their study were all leisure activities, and recent and more sophisticated studies have corroborated this finding. Tkach and Lyubomirsky

(2006) reported that engaging in leisure activities was among the most successful strategies for increasing happiness, and Lu and Argyle (1994) describe how British adults with serious leisure commitments were happier than those without. Similar findings are reported elsewhere (e.g., Iwasaki, 2007; Laukka, 2007). In comparing amateurs and professionals during a singing lesson, Grape and colleagues (Grape, Sandgren, Hansson, Ericson, & Theorell, 2003) found that only the amateurs reported increased emotional well-being when self-reports before and after the singing lesson were compared. Hence, it may be that it is the recreational setting in itself that adds to well-being, and not the activity as such.

Introducing the Day Reconstruction Method (DRM), which assesses how people spend their time and how they do experience the various activities and settings of their lives, Kahneman and his colleagues (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) observed that leisure activities—such as watching TV, relaxing, eating, exercising, and spending time with friends—were by far more enjoyable than activities performed during work hours.

In a follow-up study, these authors (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006) illustrate another way in which leisure affects life satisfaction. In their sample, rich people spent more hours working than the poor, and since work activities are more boring than leisure activities, these authors suggest that a suppressor effect is operating on the connection that is commonly found between life satisfaction and personal wealth (see e.g., Biswas-Diener, 2009; Lucas & Schimmack, 2009; Schyns, 2003). The nature of this suppressor effect is as follows. Higher income correlates positively with both life satisfaction and working hours. However, working hours contribute negatively to emotional well-being, which in turn affects life satisfaction negatively. The studies from the Kahneman group also remind us how socioeconomic status affects attitudes toward, and use of, leisure time. Sociological approaches to leisure have a lot to say about the cultural premises for leisure opportunities and leisure experiences depend on cultural and societal structures (de Grazia, 1962; Haworth, 1997; Linder, 1970; Veblen, 1953).

The literature discussed above does not speak to the issue of causation. It is not necessarily the leisure activities themselves that enhance positive feelings and well-being. There are, however, some studies that demonstrate a causal relation between leisure and life satisfaction. For example, Reich and Zuatra (1981) asked students to engage in either two or twelve pleasant activities for a month. Compared with a control group, both the activity groups reported increase quality of life. In a panel study among the elderly Searle and his colleagues (Searle, Mahon, Iso-Ahola, Sdrolias, & van Dyck, 1998) found an immediate effect of a leisure education intervention on measures of generalized locus of control and life satisfaction. However, after 18 weeks the effect on life satisfaction was no longer sustained.

Particular Leisure Activities

Does the influence from leisure to well-being depend on the kind of activity one is committed to? To answer the question, a useful distinction between active and

passive leisure may be introduced, because active leisure is commonly reported to be more rewarding than the latter (Csikszentmihalyi, 1997; Tkach & Lyubomirsky, 2006). However, in their first DRM study, Kahneman and his group (Kahneman et al., 2004) found that among the ten activities that ranked highest on positive emotions, only exercise—ranking 6th on the positive emotion list—could be categorized as active leisure. The other nine were in descending ranking: intimate relations, socializing, relaxing, praying, eating, watching TV, shopping, preparing food, and being on the phone.

Csikszentmihalyi and LeFevre (1989) found a socioeconomic gradient in the relation between subjective experiences and active versus passive leisure. In their study, managers reported higher motivation in active leisure (operationalized as flow), in contrast to blue-collar workers, who were more motivated by passive (or non-flow) leisure.

An interesting mix of both active and passive leisure is present in the category of outdoor recreation. According to Ittelson and colleagues (Ittelson, Franck, & O'Hanlon, 1976), the most salient characteristic of an outdoor experience is the active process in which the individual can carry out his or her activities with a maximum of satisfaction. On the other hand, a series of studies have also documented the stress-reducing and restorative effects of natural environment and outdoor recreation. For instance, Ulrich, Dimberg and Driver (1991) found that physiological stress recovery was faster and more complete when participants were exposed to natural rather than urban environments, and he argues that a biologically prepared readiness for preferring natural environments may account for these findings. The restorative effect of nature environments has been confirmed in several studies (e.g., Hartig & Evans, 1993; Herzog, Black, Fountaine, & Knotts, 1997; Laumann, Garling, & Stormark, 2003; Parsons, 1991; Strumse, 1996; Tarrant, 1996; Ulrich, 1983; Wells & Evans, 2003). Outdoor recreation has further been shown to facilitate an impressive collection of well-being outcomes and other indicators of positive functioning (e.g., Herzog et al., 1997; Plante, Cage, Clements, & Stover, 2006; Tarrant & Green, 1999; Weinstein, Przybylski, & Ryan, 2009). For example, various forms of nature involvement consistently emerged as important spill-over effects on employees' job satisfaction (Kaplan, Bardwell, Ford, & Kaplan, 1996).

The Attention Restoration Theory (ART), developed by Stephen and Rachel Kaplan (Kaplan, 1995; R. Kaplan & Kaplan, 1989), holds that natural environments restore mental processes after fatigue caused by long-lasting directed attention. Restoration occurs with a distance from the causes of fatigue (*being away*), given a harmonious match between one's purposes and inclinations (*compatibility*). Two other elements of nature encounters that are considered beneficial by the ART are the interest driven and effortless attention (*fascination*) evoked in rich and coherently ordered environment (*extent*). It has been suggested that the first two benefits of ART encapsulate the recovery element of leisure, while the latter two sum up the change element, or at least the growth opportunities that follow from serious reflection upon unresolved personal problems or larger questions such as the meaning of life (see Herzog et al., 1997).

Leisure and Positive Change

Important ideas in the recreation literature, such as flow theory and the ART, appear to account for how recovery and change processes may occur simultaneously in leisure activities. Csikszentmihalyi has, for instance, argued that people cannot enjoy what they are doing unless they get better at it, and the process of getting better is the reason why flow is a force for growth (M Csikszentmihalyi & Csikszentmihalyi, 1988, p. 262). However, recent literature on the development of skills suggests that Csikszentmihalyi's assumption may be wrong (e.g., Ross, 2006). Actually, Csikszentmihalyi's own reasoning may challenge the simultaneously hypothesis, since he has claimed (Csikszentmihalyi, 1996) that humans are motivated by two contradictory sets of instructions. The first set of instructions is a conservative tendency made up of instincts for self-preservation, self-aggrandizement, and saving energy. In the context of leisure research, I believe these instructions are related to recovery. The second set of instructions reflects an expansive tendency made up of instincts for exploring, for enjoying novelty and risk. I believe these instructions speak to the process of positive change.

A closer look at relevant leisure studies reveals some possible explanations as to why recovery and change elements have been mixed-up in some parts of the literature. For example, leisure activities may be divided into different phases (Hammitt, 1980), and recovery needs not take place in the same phases as change (Hull, Stewart, & Yi, 1992). In a detailed analysis of the dynamics of a physical exercise, Hall and colleagues (Hall, Ekkekakis, & Petruzzello, 2002) found a substantial element of negative emotions during the most intense and strenuous phases of the event, even if it was dominated by pleasant feelings both before and after the intense phases. Moreover, a comparison of the post-exercise measures with the pre-exercise measures indicated significant affective benefits after the working out was finished. In the Hull et al. study, the phases that are most important for developing physical strengths had a transient but substantial negative impact on affect, whereas the relaxation phases after the exercise were experienced as more positive than the preparation phase before the intense exercise had begun.

Another reason why recovery and change may appear to co-occur in the leisure activities relates to the widespread classification of emotions as either positive or negative. A huge part of the recreation studies makes use of this dichotomization and, as a consequence, ends up with representing all the different positive feeling states that take place during a leisure event in one single variable. I believe this practice constitutes a problem, both for the recreation research (Vittersø, Vorkinn, Vistad, & Vaagland, 2000) and for the study of human well-being in general (Vittersø, Oelmann, & Wang, 2009). A "grab-bag" variable of positive emotion will mix together variance from feeling states that are very different hence it may prevent the researcher from discovering the elusive dynamics of recreation experiences, and from identifying the causes and effects of both recovery and change.

To illustrate how distinct positive emotions relate differently to recovery and change elements of leisure activities, Bjerke, Kaltenborn, and Vittersø (2006) tested

the assumptions in ART using separate measures for relaxation, pleasure, and interestingness. The results revealed that relaxation was positively correlated with the ART component of *compatibility* but negatively correlated with the ART element of *fascination*. The data further showed that compatibility was correlated with feelings of pleasure, whereas fascination was mainly correlated with interestingness. Furthermore, in a field-experiment analyzing the effect of noise on leisure experiences, I and my colleagues found that noise from a snowmobile significantly reduced the quality of the leisure experience of cross-country skiers. The noise was particularly harmful to the relaxation part of the participants' feeling profiles, and it was to a significantly lesser degree harmful to the joyful part of their experiences (Vittersø, Chipeniuk, Vistad, & Skår, 2004).

Is the Development of Skills Pleasant?

The idea that an undifferentiated pleasure state is the companion of change and personal growth is widespread (Csikszentmihalyi, 1992; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Myers & Diener, 1995; Ryan & Deci, 2001; Watson, 2002), and may have been inspired by analogies to children, and how humans in the earliest phases of life develop skills and abilities in a playful mood (Denney, 1982). However, for adults to acquire the skills needed to perform an unfamiliar leisure activity, a process quite different from children's play is needed. Typically, when a grown-up is introduced to a new leisure activity, he or she will focus on generating proper actions while avoiding serious mistakes. After a period of training, normally less than 50 h, an acceptable level of proficiency has been attained, in which performance appears smoother and nasty mistakes occur more seldom. At this point, performance has basically become automated and individuals are able to carry out the leisure activity with minimal effort, and often with a substantial level of satisfaction (Ericsson, 2006).

The correlation between low effort and high satisfaction is intriguing and goes against the classic view that leisure is both pleasurable and character-building at the same time. The simultaneously hypothesis contradicts several mainstream theories in positive psychology as well. Consider, for example, the broaden-and-build theory (Fredrickson, 1998; Fredrickson & Cohn, 2008), which makes two central claims. First, all positive emotions are assumed to broaden people's momentary thought–action repertoires (the broaden hypothesis). Second, temporary and transient experiences of positive emotions over time build enduring personal resources (the build hypothesis). However, the idea that all positive emotions entail both broaden and build elements contradicts influential theories of emotions. For instance, neurobiological theories of emotions commonly divide positive emotions into appetitive emotions and consummatory emotions (e.g., Kringelbach & Berridge, 2010), each of which have a distinct phenomenology and different functions. It occurs to me that the appetitive emotions may be related to growth, change, and hence the building element of Fredrickson's theory, whereas the consummatory emotions are more

likely related to concepts such as recovery (Kaplan, 1995), savoring (Bryant & Veroff, 2006) and also the broadening of attention (Carver, 2003).

Much empirical and theoretical evidence go against the notion that pleasure is connected with change and developing personal resources. According to the mere-exposure effect, it is familiarity, not novelty, that produces pleasure (Zajonc, 1968). More recent research have backed up this claim, discovering that easy-to-process stimuli produce higher activity over the zygomaticus region of the brain, which is an indicator of pleasant affect (Winkielman & Cacioppo, 2001). Similarly, the discovery of a neurological "liking system" as different from a neurological "wanting system" (Berridge, 1999) provides further support for the proposal of separating consummatory and appetitive emotion states. Hence, a recent literature review concluded that there appears to be at least two distinct classes of positive emotions represented in the brain, with separate but overlapping neuroanatomical substrates. The two correspond with the consummatory and appetitive taxonomy (Burgdorf & Panksepp, 2006).

A relevant illustration of why pleasure is not likely to build skills and personal resources appears if we combine the fluency thesis (Winkielman, Schwarz, Fazendeiro, & Reber, 2003), with an analysis of the processes that are performed during typical leisure activities. To start with Winkielman pleasure is supposed by him to be the emotional result for individuals dealing with easy tasks, during which the information processing runs fluently. Pleasure is typically found to occur in non-demanding situations dominated by familiarity, typicality, and symmetry; it denotes faster and less complex processing. In other words, pleasure may result from the dynamics of automated behavior simply because stimuli that are processed by high speed, low resource demand, and high accuracy will in itself produce pleasure.

As documented by Hill and Schneider (2006), automated activities are highly enjoyable, but they do not lead to improvements in skills or capabilities. This perspective contrasts a fundamental notion in flow theory, which claims that unless people get better at what they are doing, they ca not enjoy doing it any longer (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 262). If automated skills are not only those most commonly employed in leisure activities, but also those that make leisure satisfactory and intrinsically enjoyable for adults, the idea that the joyfulness of flow acts as a magnet to learning (Csikszentmihalyi, 1997, p. 33) may be in trouble. As an alternative, Ericsson argues that the characteristics of flow are inconsistent with the demands of what he calls deliberate practice (Ericsson, 1996, p. 25). By deliberate practice, Ericsson refers to a set of nuts and bolts that seems necessary for effective learning to take place. The most important elements in deliberate practice are concentrated attention toward a well-defined task with an adequate difficulty level for the particular individual, informative feedback, opportunities for repetition, and corrections of errors (Ericsson, 1996, pp. 20–21). Based on the extensive studies of the acquisition of expert performance (e.g., Ericsson, Charness, Feltovich, & Hoffman, 2006), one is tempted to ask if the efforts needed for change and personal growth are stripped for, rather than filled with, enjoyment.

According to the idea of pleasure as a common currency (Cabanac, 1992), this is a reasonable argument. The concept implies that when people must choose among

competing behaviors, pleasure is the priority scale against which they make priorities. Cabanac suggests that behavior is selected by subjects who maximize their pleasures and minimize their displeasures, and that homeostatic stability rather than change provides the pleasure that they seek. In support of this assumption, Cabanac has conducted a series of experiments showing how thermal comfort regulates the amount of physical effort people are willing to carry out at a given temperature. For example, in one of his studies (Cabanac, 1992) self-reported pleasantness was used to establish the optimal room temperature for given level of physical activity (running on a treadmill with a certain resistance). A similar procedure established the optimal level of physical activity for a given room temperature. In the second phase of this experiment new participants were asked to either regulate the slope of the treadmill, given a constant room temperature, or to regulate the room temperature, given a constant slope on the treadmill. In either case the participants regulated the slope (or temperature) in almost perfect accordance with the prediction of the common currency hypothesis. An impressive 97% of the variance in the theoretical variable of pleasure maximization was explained by the actual behavior of the participants in this experiment.

Cabanac's studies suggest that when given a free choice, humans put in the effort needed to keep their physiology in homeostatic balance, but not more. The question is whether this assumption is in conflict with widely used theories in positive psychology, explaining that pleasant emotions motivate growth rather than stability? After all, the premise of flow theory (Csikszentmihalyi, 2009), broaden-and-build theory (Fredrickson & Cohn, 2008), self-determination theory (Deci & Ryan, 2000), and other theories is the idea that, given a varied number of prerequisites, it simply feels good to build one's potential. In other words, a general message from positive psychology is that personal growth and the development of skills is intrinsically pleasant. However, if these assumptions are correct, why are sedentary lifestyles and unhealthy behaviors blooming in western societies? Given that the process of personal growth is intrinsically pleasant, why do we need intervention programs and other kinds of external stimulation to keep up a healthy lifestyle? After all, such programs are not needed to make us watch TV or eat chocolate.

However, we are not spending all our spare time eating snacks and watching TV. There is, after all, a lot of effortful and active leisure going on. One reason why active leisure is attractive even if it may be short on pleasure compared to passive leisure may be attributed to engagement and interest. According to the functional model of well-being (FWB; Vittersø, 2010), engagement means being in a mode in which the urge of an immediate return to homeostatic balance is pushed back. The function of engagement is supposed to promote willingness to continue an ongoing activity even if it does not feel pleasant to keep on. Hence, in the context of the leisure approach taken in this chapter, to postpone a return to homeostatic balance means to postpone behavior leading to recovery. Accordingly, the best opportunities for personal growth are created when immediate returns to homeostatic set-points are delayed. In other words, positive change occurs at the expense of recovery.

There are instances in which engagement is highly correlated with pleasure. Sometimes engagement/interest correlates substantially with pleasure/satisfaction,

but sometimes this correlation disappears (e.g., Higgins, 2006; Iran-Nejad, 1987; Silvia, 2006; Vittersø, Overwien, & Martinsen, 2009). One factor that may affect the association between engagement and pleasure is personal experience and the importance of the activity relative to the personal goals and striving for the individuals under study. For example, Hsaiao and Thayer (1998) reported that experienced exercisers noted enjoyment as the main motivator for working out, whereas the beginners were motivated by health and aesthetic reasons. If it takes engagement to become an experienced athlete, it seems reasonable to speculate that the experienced exercisers could have been more engaged than the inexperienced exercisers, and that engagement was the moderator of the association between activity and the reported pleasure. Some support of the engagement as moderator hypothesis was found in a study conducted by me and one of my students (Vittersø & Søholt, 2010). We found that trait engagement as measured a month before a long outdoor hike predicted the reported pleasantness during the event, and that state pleasantness strongly predicted motivation for doing a similar hike in the future. Trait pleasantness did not predict state pleasantness during the hike.

Future Research

Passive leisure is normally reported to be more pleasant than active leisure (Kahneman et al., 2004). Nevertheless, effortful and extremely active leisure is sometimes reported to be the most intense and enjoyable of all the activities humans can think of (Csikszentmihalyi, 1975). This contradiction suggests that positive psychology still has a way to go before the dynamics between good feelings and good functioning is properly understood. For example, flow theory suggests, as does the model of FWB, that engagement is a prerequisite for optimal experiences. However, flow theory suggests that five other prerequisites also help promote flow experiences, and these are: high challenges and skills; clear and proximal goals; immediate feedback; and highly focused attention (Schmidt, Shernoff, & Csikszentmihalyi, 2007). It is not clear though, which of these elements that are necessary and/or sufficient for flow to occur. Moneta and Csikszentmihalyi have for instance suggested that the balance between challenges and skills is the only determinant of all possible subjective experiences (1999, p. 606). This is not very likely, since most evidence suggest that the balance between challenges and skills hardly explains more than 5–10% of the variance in subjective experiences. Hence we obviously need to clarify what skill development feels like and what role the balance between challenges and skills really have.

Similarly, the development of personal potentials may not necessarily be following the same paths as the development of skills and expertise. For example, the Self-Determination Theory (Deci & Ryan, 2000) suggests that intrinsically motivated people are not bound by the hedonic motivation that is regulated by the set-point of an equilibrium. Rather, they are naturally inclined to engage in activities that interest them and to act in the direction of increased psychological

differentiation and integration. Given the right circumstances, people move toward personal and interpersonal coherence whether this behavior leads to satisfaction of homeostatic needs or not. The issue of whether the psychological differentiation and integration can develop without tedious repetitions, intense concentration or the effortful pushing of one's physical capacities is not known, and should capture more research interest in the years to come.

Finally, when it comes to the broaden-and-build theory, more studies are needed to clarify the issue of whether all the positive emotions actually contribute to both broadening attention and building skills. In the FWB approach, interest and engagement contribute to building skills, but they narrow down attention. According the FWB, skills develop when attention is limited and highly focused. Future research may decide which of the two hypotheses that turns out to be most reasonable.

Conclusions

A huge number of studies has shown that leisure activities are important for people's overall quality of life. Positive emotions are normally increased during leisure activities. These positive experiences tend to last beyond the moment and spill over to general evaluation of life as a whole, although the leisure activities must be maintained in order to keep its effect on well-being alive over longer periods of time.

Given the right context and motivational states, leisure may offer opportunities for both recovery and positive change. However, the history of leisure has revealed that recreation has been used both well and not so well. The free men of the Ancient Greece took advantage of their leisure time to develop the forerunners of modern science, and Csikszentmihalyi has suggests that the world would have been a dull place if our ancestors had used their free time simply for passive entertainment or restorative purposes, instead of finding opportunities to explore beauty and knowledge (Csikszentmihalyi, 1997). On the other hand, the populace of the Roman Empire was offered "bread and circus" in their spare time, and ball games have been used by kings and emperor to distract a starving population. A 100 years ago, middle-class housewives wasted the opportunity for a tremendous increase in possible leisure time for an almost obsessive concern for housekeeping. Practically, all time freed up due to new technologies and housekeeping aids in the first half of the twentieth century was eaten up by higher standards of housework, and the question is whether this was a prudent investment of time (Schor, 1993).

Today, much time is devoted to working long hours and watching more TV (Harvey & Mukhopadhyay, 2007). The promise of positive psychology is to gain more knowledge of the consequences of active and passive leisure, to learn about the dynamics of leisure as recovery and leisure as growth works, and last but not least, to better understand how the balances between work and leisure affects happiness and opportunities for bringing our lives to flourishing completion.

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