

Social Class and Basic Psychological Need Satisfaction During Leisure and Paid Work

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Abstract

This study examined how basic psychological need satisfaction varies within and between leisure and paid work, taking social class into account. Data were collected from 340 super-creative, creative professional, working, and service class employees who worked at least 20 hours per week. Results included (a) autonomy was highly satisfied during leisure for all four classes, but so too was competence for working and service class members; (b) the degree to which autonomy was satisfied during leisure compared to work differed greatly; (c) competence was satisfied much more during work than leisure only for super-creative and creative professional class members; and (d) relatedness was satisfied more during leisure than work only for service class employees. These findings suggest that programs should be developed to improve super-creative and creative professional class members' leisure-based competence.

Keywords: *Autonomy, competence, relatedness, creative class, employee*

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And you think you're so clever, and classless, and free.

(John Lennon, 1970)

Psychological needs, in contrast with physiological needs, are learned through interaction with the encompassing social environment (Kleiber, Walker, & Mannell, 2011). Three fundamental (or “basic”) psychological needs have been identified, empirically supported, and integrated into a framework called basic psychological needs theory (BPNT): *autonomy* that involves freedom to initiate and regulate one’s behavior, typically through personal choice (Deci & Ryan, 2000); *competence* that, involves effective functioning and, in turn, the desire to seek out and conquer ever bigger challenges (Deci & Ryan, 2000); and *interpersonal relatedness*, which involves people feeling they are loved by and connected to others (Ryan & Deci, 2002). BPNT, a mini-theory within self-determination theory, holds that “the impact of any activity on well-being is a function of the person’s experience of need satisfaction” (Ryan, Rigby, & Przybylski, 2006, p. 350).

There are compelling reasons for examining need satisfaction during leisure and work, perhaps now more so than ever. From a theoretical perspective, since 1995, social psychological research has developed criteria to determine what constitutes a need (Baumeister & Leary, 1995) and identified what basic psychological needs exist (Ryan, 1991). Because need satisfaction affects motivations and motives influence behavior (Deci & Ryan, 2000), a better understanding of psychological needs could improve our ability to explain and predict leisure participation. From a societal perspective, some scholars (Blackshaw 2010; Rojek, 1995) have suggested that the relationship between leisure and work has profoundly changed; especially in terms of the similar level of autonomy each domain now affords. Florida (2012) concurred, but contended this change was largely because the nature and composition of social classes was radically transforming. Social class not only involves “the material conditions of the individual’s life, and how he or she experiences rank in those conditions,” but it also “creates social class contexts that elicit a coherent set of social cognitive tendencies and guide patterns of thought, feeling, and action” (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012, p. 547). In this article, I follow Florida’s example and examine his two kinds of “creative” class members—core creatives and creative professionals—and two traditional types of class members: service and working. Finally, from a practical perspective, a better understanding of people’s psychological needs could lead to the development of more satisfying recreation programs. This outcome is important not only in terms of retaining clients, but also because leisure satisfaction influences people’s quality of life (Newman, Tay, & Diener, 2014).

The purpose of this study therefore, is twofold: to examine how psychological needs vary within and between leisure and paid work; and to determine what role, if any, social class has on need satisfaction in these two domains. Three research questions have been developed to address the above:

RQ1: (a) Are the psychological needs for autonomy, competence, and relatedness satisfied to different degrees during leisure? (b) If so, does this pattern vary by social class?

RQ2: (a) Are the psychological needs for autonomy, competence, and relatedness satisfied to different degrees during paid work? (b) If so, does this pattern vary by social class?

RQ3: (a) Are the psychological needs for autonomy, competence, and relatedness satisfied more during a person’s leisure than during his or her paid work? (b) If so, does this pattern vary by social class?

Literature Review

The literature review is divided into three sub-sections. In sections one and two, research on identifying psychological needs is described and appraised, and need satisfaction during leisure and work, respectively. In sub-section three, research on social class and how social class affects need satisfaction during leisure and work are reviewed.

Psychological Needs Research

In 1971, Deci proposed that feeling “competent and self-determining” was a basic human need, with Deci and Ryan (1985) later clarifying that these were in fact two distinct psychological needs: competence and autonomy. Ryan (1991) subsequently suggested that interpersonal relatedness could also be a basic need. Ryan’s (1995) criterion for determining what constituted a basic need was that personal satisfaction was essential for an individual’s growth, integrity, and well-being. Baumeister and Leary (1995) expanded on this when they constructed a case for relatedness being a basic need. To do so, they began by identify what criteria would have to be met for something to be endorsed as a need. Baumeister and Leary’s benchmarks included that it must (a) result in medical and psychological harm when unsatisfied; (b) operate across a wide variety of settings, (c) impact a broad variety of behaviors, (d) direct cognitive processing, (e) impel toward satisfaction, (f) have affective consequences (e.g., increased happiness), and (g) be universal. Based on such criteria, Ryan and Deci (2000) stated that there was no convincing argument for any other fundamental psychological needs beyond these three. An empirical study (Sheldon, Elliot, Kim, & Kasser, 2001) of 10 “candidate” psychological needs (e.g., autonomy, competence, relatedness, security, self-esteem, self-actualization, etc.) largely support this assertion. Specifically, all three BPNT needs loaded separately when factor analyzed, and Korean and American university students ranked all three BPNT needs equal to, or just below, self-esteem. (Autonomy, competence, and relatedness, according to BPNT, are actually antecedents to self-esteem; Deci et al., 2001).

Need Satisfaction During Leisure and Paid Work

Ryan (1995) proposed that, because “domains vary in their psychological nutriments”, when investigating need satisfaction “domain-specific studies offer a better understanding of the extent to which some general principle ‘works’ in a specific sphere where there are special influences in operation. By moving from domain to domain, opportunities to differentiate general formulations increase” (p. 412). Ryan’s proposition appears to have been persuasive, as most subsequent BPNT-based studies have examined need satisfaction in only one domain (e.g., either work or leisure), and as part of a larger model, which includes independent and/or dependent variables. Trépanier, Fernet, and Austin (2013) investigated whether workplace bullying affected Canadian nurses’ work-related autonomy, competence, and relatedness need satisfaction and, in turn, whether these mediators influenced nurses’ work engagement. A U.S. study (Graves & Luciano, 2013) composed mostly of executives, professionals, and mid-level managers, found these individuals’ needs were much more fulfilled at work.

At least two similar studies have been conducted in the leisure domain. Shen, Liu, and Wang (2013) investigated Chinese elementary school students’ need satisfaction both when they were online and in their daily life. In the former case, autonomy ranked highest, followed by competence, and then relatedness; whereas in the latter case relatedness ranked highest, followed by autonomy, and then competence. Leversen, Danielsen, Birkeland, and Samdal (2012) compared Norwegian adolescents’ need levels during leisure. Leversen and colleagues found

their participants' autonomy satisfaction was significantly higher than both their competence satisfaction and relatedness satisfaction.

Although domain-specific studies are now common, much of the pre-BPNT scholarship on need satisfaction during leisure and work was integrative. Allport (1924), a pioneering psychologist, recommended a prescriptive relationship between these two domains such that, if an industrial "worker is fated to remain at a modest economic and vocational level, vicarious compensations should be sought in avocational interests [and the] wise employment of leisure" (p. 413). Wilensky (1960), a sociologist, concurred with this compensatory hypothesis, but also put forward that alienation in one's work could "spill over" into one's leisure. Conversely, Rojek (2010) wrote:

Over and above the institutionalized and tightly organized regulations of the work place, leisure is where we get the people knowledge and coaching skills that enable us to be recognized as competent, credible and relevant actors on the plethora of social, cultural and economic situations that we encounter. (p. 3, emphasis in original)

Thus, psychologists, sociologists, and leisure scholars have all speculated about how leisure and paid work could be related, often in terms of need satisfaction, and occasionally taking into account the role social class could play.

After reviewing the literature, only three studies that either directly or indirectly compared psychological need satisfaction during leisure and paid work were identified. First, in an experience sampling method (ESM) study (Walker & Wang, as cited in Kleiber et al., 2011), Chinese Canadians reported what activity they were doing, whether it was work, leisure, both, or neither (cf. Shaw, 1984), and how well their needs for autonomy, competence, and relatedness were satisfied. Walker and Wang found that when their participants were with other people, autonomy and relatedness were satiated the most during leisure and the least during work. Second, another ESM study (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) examined American university students' need satisfaction and daily well-being. Reis and associates found autonomy and relatedness increased on the weekend—which they attributed to fewer scheduled, obligatory activities—whereas competence remained relatively stable. Third, Ryan, Bernstein, and Brown's (2010) ESM study discovered that American workers' needs for autonomy, competence, and relatedness were satisfied more during "non-work" than work. Ryan et al. acknowledged that because there are different kinds of non-work, their findings may have underestimated need satisfaction in the leisure domain. Additionally, they noted that need satisfaction could potentially vary by occupation. This possibility is consistent with Krause and Stephen's (2012) contention that "Occupation is an important indicator of social class because occupations carry with them their own set of formative contexts and psychological experiences" (p. 643).

Social Class and Need Satisfaction During Leisure and Paid Work

Although mainstream psychology has traditionally shied away from the concept of social class, this tendency has begun to change (Hodgetts & Griffin, 2015). One reason for this shift is that certain aspects of the self have been found to vary across social classes. Stephens, Markus, and Townsend (2007) discovered that working- and middle-class people perceived choice differently based on preferences for connection and differentiation, respectively. This led them to state that: "of the many sociocultural contexts that lend structure and meaning to American lives, those demarcated by social class are among the most significant" (p. 814).

By dichotomizing this concept into the overly inclusive categories of working- and middle-class, however, radical changes that have occurred in the labor market may have been over-

looked. Florida (2012) wrote in the tenth anniversary edition of *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life* that the catalyst for his original book was his belief that many of the social and economic transformations taking place were the result of the emergence and solidification of a new social class. This “creative class” as Florida called it, spanned “science and technology, arts, media, and culture, traditional knowledge workers, and the professions” (p. vii); and could be further subdivided into (a) the super-creative core, whose members regularly engage in work that produces new forms or designs and involves not only problem solving but also problem finding (e.g., artists, architects, scientists, professors; pp. 38–39), and (b) creative professionals, whose members draw on complex bodies of knowledge and regularly engage in work that involves independent and judicious thinking and, occasionally, the creation of new and innovative solutions (e.g., doctors, lawyers, and senior managers in finance, business, and health-care; pp. 38–39). A Danish study (Bille, 2010) found, however, that these two kinds of “creatives” are best construed as distinct social classes—at least in terms of leisure. According to Florida, three other classes also exist: (a) the working class (i.e., those primarily concerned with making products; e.g., manufacturing, installation, construction, transportation); (b) the service class (i.e., those primarily concerned with tending people; e.g., retail, personal care, food preparation, protective services); and (c) agriculture, fishing, and forestry.

Although Florida (2012) did not specifically discuss the creative class's basic needs, he provides numerous comments about how their lives are organized and structured that suggest the manner in and extent to which their autonomy, competence, and relatedness needs are satisfied. For instance, in terms of autonomy in the work domain, he stated that: “Scientists have always controlled their work environments, setting up their own labs and designing their own experiments. The [creative class] people in my focus groups and interviews wanted the same kind of freedom” (p. 73). Similarly, in terms of autonomy in the leisure domain: creative “people want the freedom and flexibility to pursue side projects and outside interests—some of which are directly related to their work, others perhaps less so, like being a musician or artist or being involved in community affairs” (p. 73).

Florida (2012) also held that leisure “is undertaken not for its own sake but to enhance the creative experience—which for the creative class, is work. The boundaries between leisure and work have become so blurry that the two have effectively blended into one another” (p. 144).

Rojek (1995) and Blackshaw (2010) have made similar arguments, with the latter stating that “work” has become “leisure-like” and “leisure” has become “work-like” (p. x). However Florida and the two leisure scholars appear to differ in regard to whether this “de-differentiation” is class-specific or class-shared. Blackshaw seems to support the latter perspective, as he subsequently wrote that, while “a democratic deficit continues to bedevil the leisure opportunities of some, it is an inescapable fact that the Western world is far less class-ridden...than it was a generation ago” (p. xvii).

Empirical research examining this potential melding of leisure and work is rare and has largely focused on the creative class. Ravenscroft and Gilchrist (2009) conducted interviews with English creative industries workers (e.g., fine artists, graphic designers, metal sculptors) at four different career stages. They found, in the case of early career workers, that “the creative industries had a strong allure, promising autonomy, self-expression and enjoyment and the collapse of binary distinctions between work and leisure as both became necessary sources of personal satisfaction” (p. 30). But Ravenscroft and Gilchrist also discovered there were costs associated with being a creative industry worker, with the most widespread and ever-present being risk, either in terms of not initially being able to find creative employment or not being able to sustain such employment because of low and insecure income. The latter threat was also identified by Timberg (2015), who maintained that many creative class occupations have either been “eviscerated” (e.g.,

in the case of architects) or subjected to a “winner-take-all” market structure (Frank & Cook, 1996) that has led to a minority of rich high-fliers and a majority of poor part-timers (e.g., in the case of university instructional staff). The economic precariousness of the creative class may also help explain why a positive association between U.S. counties’ percentage of creative jobs and suicide rates has been discovered (Moore, Recker, & Heirigs, 2013). Non-economic explanations for this finding also exist, with Moore et al.—based on Durkheim’s ([1897] 2006) discourse on suicide—speculating that creative class members’ feelings of overregulation, social isolation, and perceived failure to live up to society’s expectations are potential mediating factors.

Another empirical study that investigated the interweaving of leisure and work compared managers, senior managers, and non-managers in a public service (PS) organization with those in a not-for-profit (NFP) organization. Sharaf (2013) found that both her PS and NFP participants reported a division between leisure and work, primarily stemming from a reduced sense of control in the latter domain. She concluded that, “in aligning with traditional categories, leisure is still recognized as a distinct, autonomous experience, which is satisfying in serving personal interests and conditional on one’s personal control and voluntary engagement” (p. 142).

Although Florida (2012) did not specifically elucidate how creative class members fulfilled their need for relatedness in the leisure domain, there is some research on how service class members might do so. Sonnentag and Natter (2004) held that service jobs are highly demanding in terms of “emotional labor” (i.e., the “effort, planning, and control needed to express organizational desired emotion during *interpersonal* [italics added] transactions”; Morris & Feldman, 1996, p. 987). They then examined how successfully a group of employees known to have especially high emotional labor demands—flight attendants (Hochschild, 1983)—buffered depression by engaging in low-effort, physical, and social activities (e.g., watching television, exercising, and dining out with others, respectively). As hypothesized, physical activities had a significant and negative effect but, unexpectedly, low-effort activities had no effect and social activities had a significant and positive effect. Sonnentag and Natter concluded that social withdrawal was preferable, but they added that because this strategy was a short-term solution, flight attendants should strive to find non-demanding social activities that would compensate for the emotional labor required of them in their jobs.

In summary, research has found there are three basic psychological needs: autonomy, belonging, and competence (Ryan, 2001). Research also suggests that satisfaction of these needs can vary across domains (Ryan, 1995) and possibly social classes (Ryan et al., 2010). Thus, the purpose of this study is to examine how psychological needs vary within and between leisure and paid work, and to determine what role, if any, social class has on need satisfaction in these two domains.

Method

Participants

The target population consisted of individuals living in the Edmonton (Canada) metropolitan area who could be contacted by direct telephone dialing. The sampling frame of telephone numbers was based on land-lines excluding businesses, unlisted cell phones, and government exchanges. Random-digit dialing was used to ensure that households had an equal chance to be contacted whether or not their household was listed in a telephone directory.

The initial criteria for participating in the study were that the individual be 18 years of age or older; able to complete the interview at either the time called or at a later, specified time; and, because males are less likely to participate in telephone research than females, priority was given

to the former to ensure a nearly equal number of both sexes when the study concluded. Thus, the adult who answered the telephone was not necessarily interviewed. To further qualify, potential participants had to work at least 20 hours per week in one job.

Procedures

Data were collected by the University of Alberta Population Research Lab using computer-assisted telephone interviewing (CATI). A pretest ($N = 10$) was conducted in mid-April, 2012 and the instrument's readability, comprehensibility, and length were evaluated and minor modifications were made (e.g., the term "frequently" was replaced by "often"). Interviewing took place between the end of April and the middle of June 2012. Five thousand telephone numbers were allocated, with 401 interviews being completed. The average interview length was 18.0 minutes. The primary reasons for incompletes included: business/fax ($n = 1,012$), answering machine ($n = 832$), and no answer ($n = 600$). The overall response rate was 30%. No incentive was provided for participating in the study.

Data were initially obtained from 401 participants. Before the research questions could be addressed, each had to be assigned to one of Florida's (2012) social classes. Florida did so based on the U.S. Bureau of Labor Statistics Occupational Employment Survey (BLS-OES) categories. Two trained evaluators, working independently, assigned participants to one or more of six possible categories: super-creative class, creative professional class, working class, service class, agriculture, fishing, and forestry class, and insufficient information. After the first round of assignment the two evaluators agreed in 78.8% of the cases. Because there were only agriculture-, fishing-, or forestry-based participants this class was omitted; and then problematic occupations were discussed before a second round of assignment commenced. Afterward, consistency was attained in 351 cases.

Because 11 additional participants had either missing or outlier data, they too were excluded. Of the 340 who remained, females (53.0%) slightly outnumbered males. The majority were either 35 to 49 or 50 to 64 years of age (37.9% and 39.7%, respectively). Most were married or with partners (68.1%), with the remainder being either single/never married or "other" (18.2% and 13.6%, respectively). Although 15.9% had completed a Master's, doctoral, or professional degree, 17.9% had completed high school or less. Of the rest, 41.8% had either some university or had started or completed community college, while 24.4% had completed a Bachelor's degree. Exactly fifty percent had a household income over \$100,000 Canadian, with the remainder earning either less than \$50,000 Canadian (15.3%) or between \$50,000 and \$99,999 Canadian (34.7%). In terms of Florida's (2012) social classes, there were 55 (16.2%) working, 77 (22.6%) super-creative, 100 (29.4%) service, and 108 (31.8%) creative professional participants. Participants worked, on average, 39.1 hours per week ($SD = 9.9$).

Measures

Interviewers asked participants to "...help us better understand how doing the activities you do at your paid job and during your leisure satisfy certain needs.... Leisure activities means things that you do when you're not at your paid job, or doing housework, or doing chores." Participants reported their level of (dis)agreement with: (a) three items assessing autonomy satisfaction during leisure (e.g., "The activities I do during my leisure are in line with what I really want to do"), (b) three items assessing competence satisfaction during leisure (e.g., "I feel competent during my leisure"), and (c) three items assessing relatedness satisfaction during leisure (e.g., "I really feel connected with other people during my leisure"). These nine need items, each of which had among the highest item-total correlations on the work-related basic need satisfaction

scale (W-BNS; Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010), were modified to reflect the leisure domain. All of these items were measured on a 5-point Likert-type scale (1 = *Strongly disagree* to 5 = *Strongly agree*). Correspondingly participants reported their levels of (dis)agreement with: (a) three items appraising autonomy satisfaction during work (e.g., “The activities I do at my paid job are in line with what I really want to do”), (b) three items appraising competence satisfaction during work (e.g., “I feel competent in my paid job”), and (c) three items appraising relatedness satisfaction during work (e.g., “I really feel connected with other people at my paid job”). All nine items were from the W-BNS (Van den Broeck et al., 2010) and measured on the same 5-point Likert scale. Finally, participants reported their occupation, in detail; other socio-demographic information; and (c) leisure participation, life satisfaction, etc. (not discussed further here).

The autonomy scales’ standardized Cronbach alphas were .38 for leisure and .58 for work; the competence scales’ alphas were .71 for leisure and .71 for work; and the relatedness scales’ alphas were .65 for leisure and .69 for work. Closer examination of the first revealed that the reverse-coded items “(In my paid job/During my leisure activities), I often feel forced to do things I do not want to do” contributed little to the reliability of the work domain autonomy scale and had a deleterious effect on the leisure domain autonomy scale. Thus, these two parallel items were deleted, which resulted in Spearman-Brown coefficients of .57 and .44, respectively (see Eisinga, te Grotenhuis, & Pelzer, 2013). Given alpha levels are a function of inter-item reliability and scale length, and that deletion of a poor item has a greater effect on shorter than longer scales (DeVellis, 2012), the two autonomy scales in the study were retained. Additionally, given the scales’ reliabilities were comparable with other BPNT studies (e.g., Wong, Yuen, & Li, 2015), this also supported continued use of all six of the need scales. Having said this, this issue is discussed in our limitation section.

Research Design

The study’s three research questions all entailed within-participant comparisons, first overall and then by social class. Thus, a correlated design was appropriate and a series of dependent *t*-tests were conducted (Dunlap, Cortina, Vaslow, & Burke, 1996). Because of the number of tests, a significance level of $p < .01$ was used to control for Type I error. Because the measures were correlated, Dunlap and associates’ recommendation was followed for calculating effect size.

Results

RQ1(a), which concerned whether the overall sample’s within-group need satisfaction differed during leisure, was addressed using a series of dependent *t*-tests (see Table 1). Results indicated that autonomy was satisfied to a greater degree than both competence $t(339) = 5.51, p < .0001, d = 0.31$ and relatedness $t(339) = 9.31, p < .0001, d = 0.59$; and competence was satisfied to a greater degree than relatedness $t(339) = 4.47, p < .0001, d = 0.29$.

Because of these significant findings, RQ1(b) was subsequently addressed. Specifically, within-group need satisfaction by social class during leisure was examined using a series of dependent *t*-tests (see Table 1). Results showed that, for the super-creative class, while autonomy during leisure was satisfied to a greater degree than both competence $t(76) = 5.29, p < .0001, d = 0.58$ and relatedness $t(76) = 4.66, p < .0001, d = 0.61$, competence and relatedness did not differ significantly at the selected probability level of $p < .01$. Comparably, for the creative professional class, while autonomy was satisfied to a greater degree than both competence $t(108) = 3.72, p < .0003, d = 0.36$ and relatedness $t(108) = 4.32, p < .0001, d = 0.48$, competence and relatedness did not differ significantly. For those in the working class, autonomy and competence did not

differ significantly during leisure, however autonomy and competence were both satisfied significantly more than relatedness $t(55) = 4.90, p < .0001, d = 0.74$; and $t(55) = 5.33, p < .0001, d = 0.85$, respectively. Similarly, for service class employees, although autonomy and competence did not differ significantly, autonomy and competence were both satisfied significantly more than relatedness $t(100) = 4.84, p < .0001, d = 0.62$; and $t(100) = 2.80, p < .01, d = 0.35$, respectively. For comparative purposes, Cohen's (1992) effect size guidelines are: $d > .20$ is small, $d > .50$ is medium, and $d > .80$ is large.

Table 1

Dependent T-Tests for Need Satisfaction During Leisure, Overall and By Class

Need	Overall	Super- Creative	Creative Professional	Working	Service
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Autonomy	4.25 _a (0.58)	4.25 _a (0.64)	4.20 _a (0.52)	4.15 _a (0.73)	4.36 _a (0.50)
Competence	4.06 _b (0.61)	3.86 _b (0.68)	4.01 _b (0.54)	4.19 _a (0.60)	4.20 _a (0.58)
Relatedness	3.85 _c (0.75)	3.81 _b (0.76)	3.90 _b (0.70)	3.57 _b (0.83)	3.97 _b (0.73)

Note. Needs measured on a 5-point Likert scale (ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*). Means in each column sharing a common subscript are not statistically different at $p < .01$.

RQ2(a), which concerned whether the overall sample's within-group need satisfaction differed during paid work, was addressed by employing a series of dependent *t*-tests (see Table 2). Results indicated that competence was satisfied to a greater degree than both autonomy $t(339) = 12.35, p < .0001, d = 0.74$ and relatedness $t(339) = 14.40, p < .0001, d = 0.92$; with the latter two needs not being significantly different.

Table 2

Dependent T-Tests for Need Satisfaction During Paid Work, Overall and By Class

Need	Overall	Super- Creative	Creative Professional	Working	Service
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Autonomy	3.82 _a (0.86)	4.00 _a (0.77)	3.94 _a (0.75)	3.68 _a (0.92)	3.65 _a (0.96)
Competence	4.37 _b (0.49)	4.39 _b (0.50)	4.37 _b (0.45)	4.35 _b (0.60)	4.36 _b (0.48)
Relatedness	3.72 _a (0.84)	3.88 _a (0.78)	3.80 _a (0.81)	3.41 _a (0.88)	3.68 _a (0.87)

Note. Needs measured on a 5-point Likert scale (ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*). Means in each column sharing a common subscript are not statistically different at $p < .01$.

Because these findings' were significant, RQ2(b) was addressed. Specifically, within-group need satisfaction by social class, but still during work, was examined using a series of dependent *t*-tests. Results showed that, for Florida's (2012) super-creative class, competence during paid work was satisfied to a greater extent than both autonomy $t(77) = 4.58, p < .0001, d = 0.59$ and relatedness $t(77) = 5.70, p < .0001, d = 0.77$; however, the latter two needs did not differ significantly. This pattern was replicated with all three other social classes. Specifically, for those in the: (a) creative professional class, competence was satisfied more than autonomy $t(108) = 6.58, p < .0001, d = 0.67$ and relatedness $t(108) = 7.41, p < .0001, d = 0.84$, with the latter two needs did not differ significantly; (b) working class, competence was satiated more than autonomy $t(55) = 6.78, p < .0001, d = 0.80$ and relatedness $t(55) = 7.96, p < .0001, d = 1.23$, with the latter two needs not differing significantly; and (c) service class, competence was fulfilled more than autonomy $t(100) = 7.29, p < .0001, d = 0.92$ and relatedness $t(100) = 8.08, p < .0001, d = 0.95$, with the latter two needs not differing significantly during paid work. Noteworthy here is that all of the *d* statistics exceeded Cohen's (1992) benchmarks for either medium or large effect sizes.

RQ3(a), which concerned whether the overall sample's within-group need satisfaction differed between leisure and paid work, was addressed by conducting a series of dependent *t*-tests (see Table 3). Results indicated that both autonomy and relatedness were satisfied to significantly greater degrees during leisure than during paid work, however the opposite was true in the case of competence.

Table 3

Dependent T-Tests Comparing Need Satisfaction During Leisure and Paid Work, Overall and By Class

Class (Need)	Leisure <i>M</i> (<i>SD</i>)	Paid Work <i>M</i> (<i>SD</i>)	Difference <i>MD</i>	<i>t</i> -value	<i>d</i>
Overall					
Autonomy	4.25 (0.58)	3.82 (0.86)	0.43	8.50***	0.57
Competence	4.06 (0.61)	4.37 (0.49)	-0.30	-9.04***	0.55
Relatedness	3.85 (0.75)	3.72 (0.84)	0.13	2.60*	0.16
Super-Creative					
Autonomy	4.25 (0.64)	4.00 (0.77)	0.25	2.50	---
Competence	3.86 (0.68)	4.39 (0.50)	-0.53	-6.49***	0.88
Relatedness	3.81 (0.76)	3.88 (0.78)	-0.06	-0.71	---
Creative Professional					
Autonomy	4.20 (0.52)	3.94 (0.75)	0.27	3.44**	0.41
Competence	4.01 (0.54)	4.37 (0.45)	-0.35	-6.99***	0.71
Relatedness	3.90 (0.70)	3.80 (0.81)	0.11	1.16	---
Working					
Autonomy	4.15 (0.73)	3.68 (0.92)	0.46	3.93**	0.55
Competence	4.19 (0.60)	4.35 (0.60)	-0.15	-2.10	---
Relatedness	3.57 (0.83)	3.41 (0.88)	0.16	1.41	---
Service					
Autonomy	4.36 (0.50)	3.65 (0.96)	0.71	6.86***	0.92
Competence	4.20 (0.58)	4.36 (0.48)	-0.16	-2.58	---
Relatedness	3.97 (0.73)	3.68 (0.87)	0.29	2.87*	0.36

Note. Needs measured on a 5-point Likert-type scale (ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*).

* $p < .01$. ** $p < .001$. *** $p < 0001$.

Because these findings' were significant, RQ3(b) was addressed. A series of dependent *t*-test results showed that, for those in the (a) creative professional, working, and service classes, autonomy was satiated to a significantly greater extent during leisure than during paid work; (b) super-creative and creative professional classes, competence was satisfied to a significantly greater degree during work than during leisure; and (c) service class, relatedness was fulfilled to a significantly higher level during leisure than during work. Based on Cohen's (1992) benchmarks, there are two particularly noteworthy findings. First, the *d* statistics indicate small, medium, and large effect sizes for the creative professional, working, and service classes, respectively, in terms of the difference between their autonomy satisfaction during leisure and work. Second, the *d* statistics indicate medium and large effect sizes for the super-creative and creative professional classes, respectively, in terms of the difference between their competence satisfaction during work and leisure.

Discussion

The first research question asked: "Are the psychological needs for autonomy, competence, and relatedness satisfied to different degrees during leisure (RQ1a) and, if so, does this pattern vary by social class (RQ1b)?" The results indicated that, across the entire sample, during leisure autonomy was more fully satisfied than competence, which in turn was more fully satisfied than relatedness. This finding is congruent with earlier-reviewed SDT-based needs research (Leveresen et al., 2012; Shen et al., 2013) and lends credence to the contention "that a sense of freedom—autonomy—is the central defining characteristic of leisure" (Iso-Ahola, 1999, p. 36; see also Neulinger, 1981).

After social class was taken into account, however, the above held true only for super-creative and creative professional class members, as working and service class employees' needs for autonomy and competence were similarly fulfilled during their leisure. One potential explanation for this finding is that less challenging leisure activities can still allow a person to feel quite competent (Ryan et al., 2010). If so, more challenging activities could take considerable time and effort before a person felt equivalently competent; and those in Florida's (2012) two creative classes have been found to be much more likely to, for example, attend art expositions than those in the service class (Brille, 2010). At least four other reasons for this result may exist, but because all involve the nexus between leisure and work, each is discussed in RQ3.

The second research question posed: "Are the psychological needs for autonomy, competence, and relatedness satisfied to different degrees during paid work (RQ2a) and, if so, does this pattern vary by social class (RQ2b)?" The results revealed that competence was satisfied to a greater extent than both autonomy and relatedness (which did not differ), not only for the entire sample but also across all four social classes. On the one hand, competence's consistently highest ranking is not surprising given "individuals usually seek jobs that, among other things, enable them to develop and demonstrate competence" (Kanfer & Ackerman, 2005, p. 349). On the other hand, nurses, for instance, have previously reported extremely low levels of work-based competence satisfaction (Trépanier et al., 2013). Also surprising, based on Florida's (2012) description of the super-creative and creative professional class' work conditions, is the magnitude of the difference between their competence and autonomy satisfaction (i.e., medium effect sizes in both cases). Although not as extreme as that reported by the working and service classes (i.e., large effect sizes in both instances), it causes one to pause when comparing the rhetoric about the rise of the creative class with the apparent reality. Perhaps this is why, in the tenth anniversary edition of his book, Florida wrote: "Looking back, I was perhaps too optimistic about the potential for [creative] worker mobility, flexibility, and freedom" (p. 87).

The final research question asked: “Are the psychological needs for autonomy, competence, and relatedness satisfied more during a person’s leisure than during his or her paid work (RQ3a) and, if so, does this pattern vary by social class (RQ3b)?” The results indicated that, across the entire sample, autonomy was satisfied considerably more during leisure than work whereas the opposite was true for competence. The former finding is consistent with previous BPNT-based studies that have found higher levels of autonomy either during leisure than work (Walker & Wang, 2009, as cited in Mannell & Kleiber, 2011) or during non-work than work (Ryan et al., 2010). The latter finding is inconsistent with the two aforementioned studies (although it should be noted that Ryan and colleagues did hypothesize that competence would be higher during work). Finally, across the complete sample, relatedness was satiated slightly more during leisure than work. This outcome is in line with both Walker and Wang and Ryan et al. (2006). However, its practical importance is negligible based on its d being below the lower limit for a small effect size (Cohen, 1992).

What soon becomes apparent, after social class is incorporated, is how much these patterns vary across the four groups (RQ3b). This proposition is based on autonomy being fulfilled more during leisure than work in all three cases, but to markedly different degrees; specifically as a large effect size for the service class, medium effect size for the working class, and small effect size for the creative professional class. Noteworthy here is that Neulinger (1981), a ground-breaking leisure psychologist, both recognized that autonomy (or what he called perceived freedom) was a continuous variable and that a person’s perception of it was a function of his or her position in society (p. 22).

For those in the super-creative class, the finding that autonomy was equally satisfied in both domains is congruent with Florida (2012) and others’ (Blackshaw, 2010; Rojek, 1995) contention that leisure and work have now blended into each other. It is also consistent with empirical research that suggested de-differentiation has transpired for those in the super-creative, (Raven-scroft & Gilchrist, 2009) but not the creative professional (Sharaf, 2013), class.

De-differentiation was also the case for those in the working and service classes, as the need for competence was equally satiated in both leisure and work. This contrasts sharply with what was found for those in the super-creative and creative professional classes; and one is left to wonder why—given all four groups’ fulfillment of this need is so uniform during work (i.e., $M = 4.35$ to 4.39)—this antithetical pattern exists.

Besides the less/more challenging activities explanation proffered in RQ1, at least four other reasons for this finding may exist. First, because middle-class parents direct their children towards highly structured leisure activities (Stephens, Markus, & Phillips, 2014), when they grow up and become creative class members they may feel less competent. Conversely, for those in the other two classes, because their working-class parents endorsed self-directed play, when they grow up they may feel more competent. Second, in one of the rare studies that examined how early socialization simultaneously influences adults’ leisure and work, Chick and Hood (1996) found that machine-tool (i.e., working class) employees “were socialized into [skill-development and recreational] machine interest and awareness long before they were employed” (p. 347). Third, Heckhausen (2005) proposed that retail, clerical, and blue-collar jobs soon become invariant and, consequently, there are limited opportunities for competence to increase. Once this occurred, an employee could switch “one’s investment from work-related pursuits to expanding control and competence outside the work life in leisure activities” (p. 249). Potentially, for the working class and service class employees in the study, it was less a case of switching and more a case of maintaining a high level of competence in the work domain while (unlike those in

the super-creative and creative professional classes) simultaneously increasing their competence level in the leisure domain. Fourth, given the precariousness of the creative classes' employment (Ravenscroft & Gilchrist, 2009; Timberg, 2015), they may lack the temporal, financial, and educational resources necessary to satisfy their need for competence in the leisure domain.

Finally, relatedness was satisfied to the same extent during leisure and paid work for those in the super-creative, creative professional, and working classes. However, for members of the service class, this need was satisfied more during leisure than work. This finding is consistent with the earlier-mentioned advice provided to flight attendants by Sonnentag and Natter (2004), who suggested they seek out non-demanding social activities to compensate for the emotional labor (Morris & Feldman, 1996) required of them by their service class jobs.

Conclusion

The purpose of this study was twofold: to examine how basic psychological needs varied within and between leisure and paid work; and to determine what role social class had on need satisfaction in these two domains. Among the key findings were that (a) autonomy is highly satisfied during leisure across all four social classes, but competence is equally so for working and service class employees; (b) the extent to which autonomy is fulfilled more during leisure than work varies from highly (service class) to moderately (working class) to slightly (creative professional class) to not at all (super-creative class)—with only the last being in line with the thesis that contemporary leisure and work have melded (i.e., Blackshaw, 2010; Florida, 2012; Rojek, 1995); (c) competence is satiated much more during work than leisure for those in the super-creative and creative professional classes, but to an equal extent for those in the working and service classes; and (d) relatedness is satisfied more during leisure than work only for members of the service class, likely because of the emotional labor (Morris & Feldman, 1996) demanded by their jobs.

The study has important theoretical implications. For example, we may need to re-examine the privileged position held by autonomy in leisure theory (e.g., Iso-Ahola, 1999; Neulinger, 1981), and consider how competence could be incorporated into such frameworks. Additionally, although the study found support for theories that posit leisure and paid work have now become de-differentiated (e.g., Blackshaw, 2010; Florida, 2012; Rojek, 1995), it should be made manifest that—in terms of autonomy—this condition currently applies only to the super-creative class. Correspondingly, given it was discovered competence was de-differentiated for those in the working and service classes, further investigation into how this perspective should be incorporated into future theoretical frameworks appears worthwhile. Finally, although three of the social classes satisfied the need for autonomy more during leisure than work, the degree to which this occurred was considerable. Thus, future use of more graduated descriptors—such as high, moderate, and minimal compensation (based on Cohen's, 1992, large, medium, and small effect sizes, respectively)—would provide greater precision and, therefore, insight.

The study also has important implications for recreation practice. One of the underlying tenets of BPNT is that domains can be re-structured to better satisfy people's basic needs. Gillard, Watts, and Witt (2007) demonstrated how this could be accomplished for adolescent girls at a camp. Gillard and associates proposed that adult counselors could, for example, support campers' need for: autonomy by providing information about options; competence by providing

reasons for why the camp had certain rules; and relatedness by acknowledging campers' feelings. It is believed, however, that restructuring an adult recreation program by employing BPNT, while simultaneously taking social class into account, has not yet been attempted. An example of this could be a leisure education program designed to increase super-creative and creative professional class members' leisure-based competence. Potentially, doing so could help compensate for the "brutally stressful" conditions in their "caring sweatshops" (Florida, 2012), as well as provide them with coping mechanisms to deal with the root causes responsible for their high suicide rates (Moore et al., 2013).

The study has notable policy implications as well. Earlier it was noted that Allport (1924) proposed the "wise" use of leisure could compensate for unsatisfying work conditions. Left unstated was that he further added that: "employers must assume their share of the problem by enabling the worker to find outlets in useful and pleasurable channels for the drives which are thwarted by his limited vocational status" (p. 413). Contemporary corporations can address their employees' needs by embedding information from this study in their development of corporate wellness programs, namely those programs designed to improve the physical and/or mental health of their employees. All corporate wellness programs have an educational component to them that seeks to communicate to employees the benefits of a healthy lifestyle and increase awareness of how lifestyle choices can impact physical and mental health (Mujtaba & Cavico, 2013). Making employees aware of leisure choices that meet their basic needs, therefore, provides them with vital informational tools and potentially empowers them to make important, informed decisions about their health, therein promoting greater self-care.

As with all research, this study has limitations. First, the autonomy scales' alpha levels were low. This was a consequence of having to delete the reverse-coded items; with a subsequent review of the scale development literature suggesting that this type of scoring is often problematic and should be avoided (Gehlbach & Brinkworth, 2011). Second, the sample size did not allow for an examination of other variables that may interact with social class, such as age and gender. Third, although occupation is an important objective indicator of social class, subjective measures could also help future researchers examine how this variable shapes psychological functioning (Kraus & Stephens, 2012).

Future research should also investigate how the interaction between culture and social class potentially impact leisure and paid work, especially in terms of basic needs as research has found their importance can vary to some degree across cultures (e.g., Sheldon et al., 2001). Additionally, given need satisfaction during leisure influences leisure domain subjective well-being, which in turn influences overall subjective well-being (Newman et al., 2014), then a comparison between this framework and the same framework in the paid work domain could prove insightful. Finally, Deci and Ryan (2000) proposed that basic psychological needs could also be "thwarted" in certain social environments, which, in turn, could result in compromised functioning and ill-being. Research on whether this occurs in the leisure domain, or the leisure domain is a way to compensate for this occurrence in other domains (e.g., paid work), or both, could also prove insightful.

Needs and motivations have been described as one of the "pillars" of the social psychology of leisure (Walker, Halpenny, Spiers, & Deng, 2011). This study adds to the extant literature by clarifying how basic psychological needs vary within and between leisure and paid work, as well as revealing the important role social class plays in these processes.

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