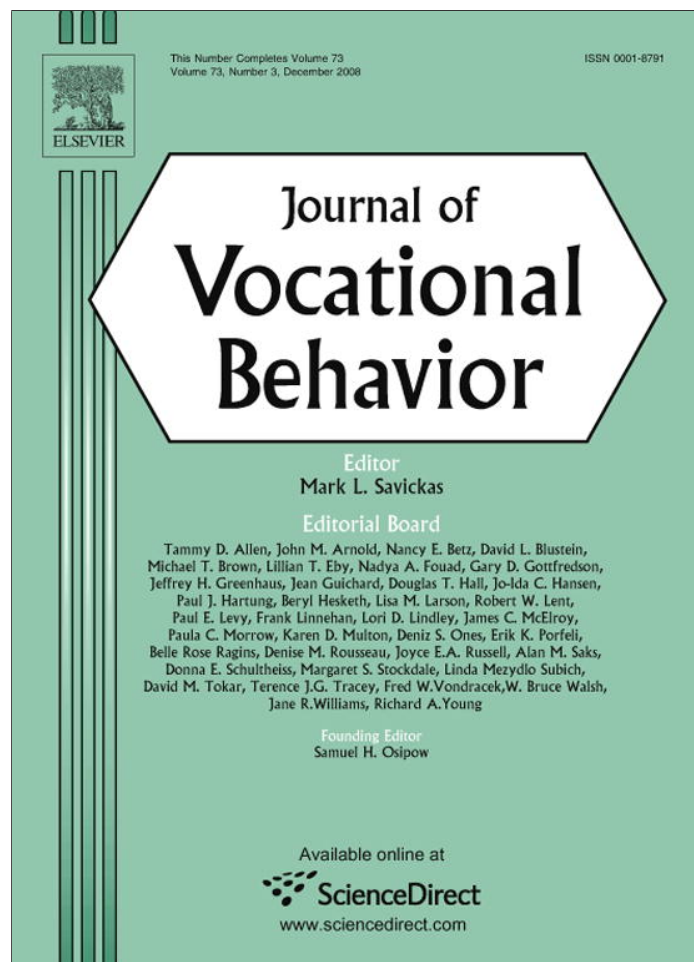


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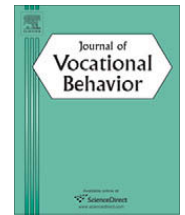
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Journal of Vocational Behavior

journal homepage: www.elsevier.com/locate/jvb

Perceived agency in retirement and retiree drinking behavior: Job satisfaction as a moderator [☆]

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ARTICLE INFO

Article history:

Received 15 January 2008

Available online 26 July 2008

Keywords:

Voluntary/involuntary retirement

Pre-retirement job satisfaction

Alcohol use disorders

ABSTRACT

Based on recent findings that post-retirement adjustment may be influenced by the conditions leading up to the decision to retire, we examine the impact of individual agency in the retirement decision on problematic drinking behavior, as well as the extent to which such an effect may itself depend upon the valence of the pre-retirement work experience. Using a sample of 304 blue-collar retirees, our findings indicate that, when controlling for pre-retirement drinking behavior, perceptions of retirement as the result of a more forced or involuntary decision are associated with greater alcohol consumption, while perceptions of retirement as the result of a more volitional or voluntary process are associated with lower levels of alcohol consumption and a lower risk of problematic drinking behavior. Our results also indicate that pre-retirement job satisfaction amplifies the former relationship, while attenuating the latter one.

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1. Introduction

Recent research indicates that a significant proportion of retirees perceive their retirement as forced or involuntary (Isaksson & Johansson, 2000), and that the implications of agency in retirement on retiree emotional well-being (van Solinge & Henkens, 2007) and health (Gallo et al., 2006; van Solinge, 2007) are significant. However, despite the evidence that approximately 10% of males over the age of 65 are heavy drinkers (Breslow, Faden, & Smothers, 2003), and that Alcohol Use Disorders (AUDs)—a term adopted by the American Psychiatric Association to encompass both alcohol dependence and alcohol abuse—are becoming increasingly prevalent among older adults (Conigliaro, Kraemer, and McNeil (2000) report an AUD prevalence rate of 10–15% among older adults presenting to hospital emergency rooms in the United States and posing an increasingly significant public health concern (American Medical Association Council on Academic Affairs, 1996), the impact of agency in retirement on the drinking behavior of older adults remains unstudied.

The absence of research examining the impact of agency in retirement on retiree drinking behavior is particularly salient in that the general impact of retirement on the drinking behavior of older people remains poorly understood. Specifically,

[☆] All authors contributed equally. Names appear in alphabetical order. Research for this article was supported by National Institute on Alcohol Abuse and Alcoholism grant, 5 R01 AA011976.

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while several studies suggest that retirement is associated with reduced alcohol consumption (e.g., Adams, 1996), other studies report the opposite (e.g., Perreira & Sloan, 2001), and still others suggest that there is no causal link between these variables (Ekerdt, de Labry, Glynn, & Davis, 1989). To the extent that, as noted above, retirement agency explains other health-related outcomes in retirement; it may serve as a critical factor resolving such inconsistencies in the literature on retirement and drinking as well.

Although there is significant evidence that older adults may use alcohol as a means by which to self-medicate stressful life events (Perreira & Sloan, 2001) or dysphoric situations (Ekerdt et al., 1989), there is also general consensus that while retirement may be viewed as dysphoric to some, it may be viewed as precisely the opposite (i.e., a condition offering relief from stress or depression) by others (Bacharach, Bamberger, Doveh, & Cohen, 2007; Shultz, Morton, & Weckerle, 1998). Thus the key to understand just when or for whom retirement is likely to be linked with increased alcohol consumption or problem drinking is likely to be contingent upon the identification of those factors explaining why retirement may be stressful or dysphoric to some but not to others. Consistent with the literature on agency in retirement noted above, we posit that the degree to which retirees view their decision to retire as voluntary (pulled) or involuntary (pushed) may serve as one such factor. However, building on general principles of comparison (Jasso, 1990) and framing (Goffman, 1974), we extend such notions of retirement agency by proposing that the extent to which a sense of being forced into retirement may be associated with a more dysphoric retirement experience (and hence an increased risk of problematic drinking) may itself depend on the individual's perception of pre-retirement conditions. Paraphrasing Sen (1987), p. 45, an "over-exhausted collie" may "take pleasures in small mercies", perhaps even when such "mercies" are forced upon him.

Consequently, in this paper, we seek to contribute to the retirement literature in two ways: (1) To apply Shultz et al. (1998) "push-pull" theory of retirement agency to explain divergent findings regarding the relationship between retirement and problematic drinking behaviors, and (2) to extend this theory by incorporating elements of comparison and framing theories, examining the extent to which the impact of retirement agency on retiree drinking behavior may be contingent upon the valence of the pre-retirement work experience.

1.1. The perceived voluntariness of retirement and alcohol-based self-medication

Previous research suggests that the impact of retirement on individuals' psychological well-being is largely driven by the degree to which individuals' actual labor force participation matches their desired participation (Herzog, House, & Morgan, 1991), or in other words, the degree to which individuals perceive their retirement as resulting from a voluntary or involuntary decision on their part. Although one might argue that with the decline of mandatory retirement regulations, all retirement decisions are by their very nature "voluntary", empirical findings suggest that this may not necessarily be the case (van Solinge & Henkens, 2007). For example, in the Netherlands, Theeuwes and Lindeboom (1995) found that approximately 25% of the retired workers were more or less forced to retire by their employer.

There is substantial empirical support for the idea that retirement agency influences retirement adjustment and retiree emotional well-being. For example, whereas involuntary workforce disengagement is associated with poorer physical and mental health (e.g., Gallo, Bradley, Siegel, & Kasl, 2001; Herzog et al., 1991), Dooley and Prause (1997) demonstrated that when self-initiated, retirement can offer relief from employment-related negative emotional states and consequently enhance the well-being. Moreover, voluntary retirees are more likely to report that their standard of living in retirement has at least maintained pre-retirement levels (Shultz et al., 1998), and that their psychological well-being has even improved after retiring (Floyd et al., 1992).

Building on this notion that the objective voluntariness of the retirement decision may serve as a key predictor of retirement outcomes, Shultz et al. (1998) demonstrated empirical support for a "push-pull" theory of retirement, indicating that how individuals perceive the voluntariness and involuntariness of their retirement decision, also has an impact upon their retirement adjustment and well-being. According to this theory, perceived agency in retirement can be conceptualized in terms of two factors, i.e., the degree to which individuals frame retirement as something involuntary, or "pushed" upon them, and the degree to which retirement is framed as something voluntary, or to which they were "pulled" (Williamson, Rinehart, & Black, 1992). Those perceiving themselves as having been more "pushed" into retirement may experience retirement as more dysphoric than those perceiving themselves as having been more "pulled" into retirement. Notably, Shultz et al. (1998) suggest that while for most individuals, the retirement decision is a function of both "push" and "pull" motivations, the relative strength of each is likely to influence one's retirement experiences and hence the well-being in retirement.

Recent research (Bacharach et al., 2007; Perreira & Sloan, 2001) suggests that to the extent that retirement is experienced as a dysphoric life event, it may have adverse consequences on older adults' drinking behavior. The stress-drinking paradigm (Frone, 1999) underlies this linkage, suggesting that, particularly for older adults maintaining positive alcohol expectations (Bacharach et al., 2007), drinking may serve as a means by which to self-medicate such negative emotional states. The use of alcohol as a mode of self-medication may be particularly salient among retired individuals (Richman, Zlatoper, Zackula Ehmke, & Rospenda, 2006). While for employed individuals, formal organizational policies and informal norms may regulate alcohol consumption and hence drinking as a means of coping with stress or dysphoria (Bacharach, Bamberger, & Sonnenstuhl, 2001), for retirees, the lack of such employment-related constraints may provide greater opportunities for alcohol-based self-medication. Consequently, we posit:

Hypothesis 1a. The more retirees view themselves as having been involuntarily forced (i.e., “pushed”) into retirement, the greater the increase in alcohol consumption and problematic drinking behavior following retirement.

Hypothesis 1b. The more retirees view their retirement as the outcome of voluntary process (i.e., being “pulled” into retirement), the smaller the increase in alcohol consumption and problematic drinking behavior following retirement.

1.2. The moderating role of job satisfaction prior to retirement

Retirement scholars have also proposed that well-being in retirement may be influenced not only by the degree of retirement agency, but by the valence of the pre-retirement (i.e., employment) condition (van Solinge, 2007) as well. Such a notion is consistent with comparison theories in sociology and social psychology (Adams, 1963; Jasso, 1990) as well as Goffman (1974) notion of “framing”, all of which suggest that the impact of retirement on well-being is likely to be context-dependent. Such a notion is also consistent with the lifespan perspective in retirement research which suggests that, “individuals are not only influenced by present contexts, but also by earlier life events and experiences” (Kloep & Hendry, 2006, 590). Accordingly, individuals are likely to experience more negative emotions when retirement is framed as a “loss” (i.e., the current, retirement situation falls short of the prior, work-based situation), and more positive emotions when retirement is framed as a “relief” (i.e., the present situation compares positively against the work-based referent). Interestingly, however, longitudinal studies have yet to uncover evidence of a direct effect of pre-retirement job characteristics and attitudes on retiree well-being (van Solinge, 2007).

Nevertheless, aside from a direct effect on retiree well-being, it is conceivable that pre-retirement job attitudes may also exert an indirect effect, conditioning the effects of retirement agency on retiree well-being. That is, again building on the context-dependency notion inherent in framing theory (Goffman, 1974), the aversive nature of involuntary retirement may vary depending on individual perceptions of the pre-retirement work situation. To the extent that this situation is perceived as aversive, even retirement motivated largely by push factors may be framed as providing a sense of relief, with the result being the attenuation of the negative effects of involuntary retirement (i.e., increased problematic drinking). In contrast, framing theory suggests the adverse effects of involuntary retirement on retiree drinking behavior may be amplified to the extent that individuals’ pre-retirement work-situation is deemed positive.

Such framing effects are also likely to come in to play when the retirement decision is motivated more by pull than push factors. In particular, the expected inverse association between retirement pull and the change in problematic drinking is likely to be amplified when the pre-retirement, work situation is framed as more negative in that with the relief offered by voluntary disengagement likely to be greater under such conditions, the need for self-medication is likely to be diminished. Similarly, opposite (i.e., attenuation) effects may be expected under conditions of retirement pull from a positively-framed job, in that, even though the decision to retire is based on one’s volition, one may still experience a sense of “loss”, with this sense attenuating the generally inverse effect of retirement pull on problematic drinking.

Conceptualizing valence in terms of the degree to which a given situation or outcome satisfies an individual’s needs and values (Vroom, 1964), job satisfaction is likely to provide a broad indication of individuals’ pre-retirement job valence (Locke, 1976). Indeed, job satisfaction has been defined as reflecting individuals’ affective reaction to various aspects of the job or employment situation (Hackman & Oldham, 1980). Moreover, because job satisfaction is considered an important predictor of withdrawal-related attitudes and behaviors, (e.g., Hackman & Oldham, 1980), it is likely to serve as a valid metric for assessing the degree to which, prior to disengagement from their work, individuals framed their work situation in terms of more positive or negative attitudes. As such, the logic above suggests the following hypotheses:

Hypothesis 2a. The positive association between a sense of being pushed into retirement and the change in alcohol consumption and problematic drinking behavior following retirement is amplified as a function of pre-retirement job satisfaction.

Hypothesis 2b. The inverse association between a sense of being pulled into retirement and the change in alcohol consumption and problematic drinking behavior following retirement is attenuated as a function of pre-retirement job satisfaction.

2. Methods

2.1. Sample and procedure

Subjects were identified through the membership files of nine national and local unions representing workers employed in three blue-collar sectors in the United States: Transportation, manufacturing and construction. The survey data were collected from a sample of soon-to-be retirement-eligible workers in each of the unions at two times (T1—approximately 6 months prior to, and T2—30 months subsequent to, retirement eligibility). Retirement-eligible workers were defined as those individuals who met their union’s criteria for full retirement benefits. While these criteria varied from union to union, in most cases, criteria were based on a combination of age (e.g., minimum age of 50) and years of service (e.g., 30 years). In no case was there a mandatory retirement age rule in effect, and in fact, in all nine unions, approximately half of those eligible for full retirement benefits opted to defer retirement despite eligibility.

After ensuring the consent of potential participants, each union gave us the names, phone numbers and retirement eligibility dates of all of its members eligible for retirement between May of 2001 and February of 2002, and consenting to participate (only a handful of those in the target sample failed to consent at this stage). T1 data were collected on the basis of computer-assisted telephone interviewing beginning in November of 2000 with all participants interviewed approximately 6 months (± 2 weeks) prior to their retirement eligibility date. While we utilized the entire list of names given to us by the local unions, in the case of the national unions, we drew a random sample of names provided. Overall, the total number of respondents in T1 was 1279 (out of a target sample of 2812; overall response rate of 46%). About two-thirds of the 1533 individuals not participating (i.e., 2812–1279) were those who, despite numerous attempts, could not be contacted at the union-provided phone number. The number of respondents from each employment sector is as follows: 933 respondents were members of three unions representing workers in the transportation sector (i.e., railroad workers, flight attendants, and urban transport workers); 178 respondents were members of two unions representing workers in manufacturing (i.e., unskilled assembly-line operators, semi-skilled machine operators, and skilled-trades workers); and 168 respondents were members of four unions representing workers engaged in construction (i.e., electricians, steamfitters, and painters).

Of the 1279 T1 respondents, 993 participated in the T2 survey (a dropout rate of 22.5% mostly due to contact information that was no longer correct). Because our focus is on the consequences of retirement, only those who actually retired by T2 ($n = 537$ or 54% of the T2 sample) and for whom we had complete data along all study variables ($n = 304$ or 57% of those who retired by T2) were included in our analyses. Those dropping out of or excluded from the sample between times T1 and T2 were not significantly different on the following characteristics from those remaining in the sample: Education, ethnicity, gender, mean number of drinking problems reported at T1, mean quantity of alcohol consumed at T1, mean frequency of alcohol drinking at T1. Moreover, there was no significant change in the composition of the sample from T1 to T2. At T1, 882 (69%) were males and 397 (31%) were females, 76% of respondents were married, and 79.5% were Caucasians. At T2, 673 respondents (68%) were males and 320 were females (32%), 78% of them were married, and 82% were Caucasians. The composition of the 304 subjects whose data were analyzed for this study was quite similar: 82% males, 84% married and 88% Caucasians.

2.2. Measures

2.2.1. Pre-retirement job satisfaction

We used a 4-item index adopted from Pond and Geyer (1991) to assess subjects' job satisfaction prior to retiring (i.e., measured at Time 1, $\alpha = 0.79$). A sample item is: "Would you recommend your job to a close friend or family member". Subjects responded using a 5-point scale ranging from (1) "not at all" to (5) "very much so".

2.2.2. Pull and push factors

We assessed the degree to which respondents felt that they were "pulled" or "pushed" into retirement on the basis of two separate scales (both drawn from Shultz et al., 1998), one measuring perceived pull and the other, perceived push. Items for both scales appeared in the same section of the interview protocol, prefaced by the following statement: "People often report that a variety of reason led to their retirement. Please indicate how important each of the following factors were for you in making your decision to retire noting that (1) indicates that the factor was not important at all while (5) indicates that the factor was very important . . .". There were four push statements (e.g., "personal health status") and six pull statements (e.g., "pursue other work") (items available from the authors upon request). Both the push and pull factors were measured at Time 2. Cronbach alphas were 0.79 and 0.69, respectively. To avoid any conceptual overlap with pre-retirement job satisfaction, all push statements referred to non job-related reasons. The push and pull scales were only moderately correlated with one another ($r = -.33$), suggesting that, as proposed by Shultz et al. (1998), each factor may have a distinct role in motivating retirement rather than serving as opposite poles of a single continuum. Although the two scales were based on the scales validated by Schultz et al., a confirmatory factor analysis was run to assess construct validity. Taking into account all the theoretical independent variables (i.e., job satisfaction, push factor, and pull factor), the results of this analysis indicates the superiority of a three-factor model over two ($\Delta\chi^2 = 534.82, p < .01$) and one-factor ($\Delta\chi^2 = 757.08, p < .01$) models.

In order to assess the degree to which the proportion of "involuntary" retirees in the current sample is consistent with the figures reported in the literature noted above, we operationalized "involuntary" retirees those who were in the upper 25th percentile for "push", and lowest 25th percentile for "pull". Fifty participants (i.e., 16% of the sample) fell into this category. For comparison sake, 86 participants (i.e., 28% of participants) fell into a "voluntary retirement" category operationalized as the obverse (lowest 25th percentile for push and highest 25th percentile for push).

2.2.3. Alcohol consumption and drinking problems

In both time periods respondents were asked questions regarding the quantity and frequency of alcohol consumed in the past month, as well as problematic drinking behaviors. Drawing from the measures used by Martin, Blum, and Roman (1992) we asked respondents: (1) On how many days in the last month they consumed an alcoholic beverage such as beer, wine or liquor (i.e., alcohol frequency), and (2) on those occasions when they did drink alcoholic beverages, the average number of drinks they consumed each time (i.e., alcohol quantity). A large number of studies (e.g., Cherpitel et al., 2007) provide consistent evidence of the accuracy and reliability of self-report drinking measures.

We assessed problematic drinking behaviors on the basis of the Drinking Problems Index (DPI), an instrument specially designed to assess drinking problems among older adults (Bamberger, Sonnenstuhl, & Vashdi, 2006; Finney, Moos, & Brennan, 1991). Based on their analysis of the comparative validity of alternative measures of problem drinking (e.g., the CAGE instrument), Bamberger et al. (2006), p.132 find the DPI to offer high levels of both sensitivity and specificity, and conclude that, “the DPI offers significant advantages over the CAGE when the target population includes large numbers of older adults employed or soon to retire.”

For the DPI, respondents were read the following statement: “People often report that a variety of things happen as a result of their drinking.” Then, they were asked to respond to 17 problem-based items and indicate how often such problems were experienced in the last 12 months with response categories ranging from “never” (1) to “often” (5). A sample item is: “How often have you had a family member worry or complain about your drinking?” In order for the DPI scale (calculated by summing all the responses to the 17 items) to have a minimum response of zero (indicating NO drinking problems), per Finney et al. (1991), we transformed all the items from a 1 to 5 scale to a 0 to 4 scale. Additionally, as recommended by Finney et al. (1991), p. 398, in order to decrease the influence of two “liberal” items (i.e., “got a buzz/high” and “drink to forget worries”), responses to these two items were dichotomized (responses 0–2 were recoded as 0, and responses 3 and 4 were recoded to equal 1 prior to their inclusion in the summed, scale score). As such, the potential scoring range for the DPI was 0–62 (top score of 4 for 15 items plus top score of two for two items). In this study, Cronbach’s alpha for the DPI was 0.9 at T1 and 0.81 at T2. Bamberger et al. (2006) also demonstrate the construct validity of the DPI, showing that scores of 1 or greater among older adults are indicative of a likely AUD.

2.2.4. Control variables

Post-retirement drinking may be associated with a variety of demographic, health, situational and industry factors, some of which may also be associated with the nature of retirement decision. In order to rule out any spurious relations, it was important to include such parameters in our model specification (e.g., Shultz et al., 1998). We therefore controlled for the following variables: (A) Socio-demographic characteristics (gender, age, marital status, ethnicity, education level, change in self-reported household income—from T1 to T2); (B) physical health (measured on the basis of the change in self-reported health indicators—from T1 to T2); (C) Emotional health (measured on the basis of items adapted from Antony, Bieling, Cox, Enns, and Swinson (1998), $\alpha = 0.83$); and (D) Exposure to negative situations (e.g., death of family/close friend, divorce/marital separation). In addition, we assessed social desirability on the basis of the 20-item revision of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972). Cronbach alpha for this scale was 0.69. We also controlled for industry sector. Finally, in order to capture the impact of the hypothesized variable(s) on the change in individual drinking behavior, we controlled for the “Time 1” version of the dependent variable (i.e., the level of the dependent variable prior to retirement).

3. Results

Means, standard deviations and correlations among the variables are displayed in Table 1. Based on these results, it appears that mean quantity, frequency and DPI score rose from the pre-retirement assessment (Time 1) to the assessment in retirement (Time 2). The bivariate results indicated an inverse relationship between voluntary retirement perceptions (i.e., a sense of being pulled into retirement) and both alcohol consumption and problem drinking, and a positive relationship between involuntary retirement perceptions (i.e., a sense of being pushed into retirement) and both alcohol consumption and problem drinking.

Interestingly, while the bivariate results indicated a strong correlation between Time 1 frequency and quantity and these same parameters in Time 2 ($r = .74$ and $.57$, respectively; $p < .01$ in both cases), they also indicated only a weak relationship between Time 1 DPI and Time 2 DPI ($r = .16$, $p < .01$). Moreover, while a control model including Time 1 frequency of consumption explained over 60% of the variance in Time 2 frequency, control models including Time 1 quantity and DPI explained a more limited proportion of the variance in these same outcomes at Time 2 (i.e., 35% and 12%, respectively). The limited effect of pre-retirement quantity of consumption on quantity of consumption immediately after retiring, is consistent with findings in the alcohol literature (Ekerdt et al., 1989), which suggest that, once released from work-based obligations, low quantity consumers (who comprise the vast majority of employees in most workplaces) feel able to increase their average quantity of alcohol intake on each drinking occasion (without necessarily increasing their frequency of consumption). Such a shift would naturally attenuate any link between pre-retirement quantity and quantity of consumption in retirement. Regarding DPI, while individuals with a moderate or serious drinking problem (DPI scores of 2 or more—Bamberger et al., 2006) at Time 1 are likely to carry such a problem forward over time (Bacharach et al., 2007), given that most study participants had scores of 0 or 1, and that individual symptoms that are not part of a more deep-seated problem may be more temporary in nature (Walton, 2000), it is not surprising that Time 1 DPI explained only a small portion of the variance in Time 2 DPI.

The results of our multivariate analyses testing Hypotheses 1a and 1b (which specified direct positive effects for involuntary retirement [i.e., “push”] perceptions and direct inverse effects for voluntary retirement [i.e., “pull”] perceptions on both alcohol consumption and problem drinking) are presented in Table 2 (see Models 1, 3, and 5). Consistent with these hypotheses, the results indicate a positive association between push perceptions and the change in both consumption frequency ($B = .334$, $p < .01$) and quantity ($B = .136$, $p < .05$). These results also indicate a significant inverse association between

Table 1
Means, standard deviations and intercorrelation (Pearson) of the measured variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 ♦Gender (1 = male; 2 = female)	1.2	.42	–											
2 ♦Age	64.4	4.5	–.30**	–										
3 ♦Marital status (1 = Married, 0 = else)	.81	.39	–.27**	.08	–									
4 ♦Ethnicity (1 = Caucasian, 0 = else)	.85	.35	.03	.05	.02	–								
5 ♦Education level	2.8	1.1	.39**	–.24*	–.18**	.02	–							
6 ♦Sector—manufacturing	.17	.37	.09	–.50**	–.16**	.13*	.13*	–						
7 ♦Sector—transportation	.72	.45	–.01	.49**	.10	–.15**	–.14*	–.82**	–					
8 ♦Social desirability	3.1	.44	.08	.06	–.06	.21**	.07	–.00	.00	–				
9 Change in physical health (T1–T2)	1.5	2.4	–.09	.07	.08	–.06	.03	–.04	.01	–.02	–			
10 Change in Household Income (T1–T2)	1.6	2.6	–.17**	.22**	.11	.04	–.06	–.04	.06	.03	–.00	–		
11 ■Emotional health	2.1	.53	.17**	–.08	–.09	.13*	.06	.06	–.05	.17**	.10	–.07	–	
12 ■Death of family/close friend	1.9	1.8	.03	.02	–.07	–.07	.03	–.00	.01	.00	–.02	–.02	.10	–
13 ■Divorce/marital separation	.61	1.0	–.00	–.07	–.06	.00	.02	.00	–.04	–.04	–.02	–.10	.11*	.16**
14 ■Deterioration of health-family member	1.5	1.6	.17**	–.08	–.11	.02	.02	–.00	.02	.02	.08	–.04	.18**	.39**
15 ■Major personal injury/illness	1.3	1.6	.16**	–.10	–.06	–.00	.10	–.04	.05	.10	.14*	–.13	.28**	.24**
16 ♦Drinking Frequency Time 1	7.3	6.9	.18**	–.056	–.13*	.10	.081	.07	–.12*	.12*	–.15*	–.015	.13*	.02
17 ♦Drinking Quantity Time 1	1.64	1.65	.01	–.015	–.05	.04	–.05	.02	–.51	.16*	–.145*	–.009	.16**	–.08
18 ♦Drinking Problem Index (DPI)	1.46	2.68	.03	.08	–.04	.12*	–.12*	–.09	0.8	.09	–.16*	.06	.042	–.005
19 ■Drinking Frequency Time 2	11.9	10.5	.23**	–.03	–.06	.11*	.10	–.01	–.03	.09	–.18**	–.06	.12*	.06
20 ■Drinking Quantity Time 2	2.7	1.5	.00	–.13*	–.05	–.00	–.08	.03	–.05	.07	–.20**	–.04	.18**	–.05
21 ■Drinking Problem Index (DPI)	1.3	2.9	.06	–.11	–.02	–.04	–.01	–.05	.03	.12*	–.05	–.07	.15**	–.00
22 ♦Pre-Retirement Job Satisfaction	3.6	1.1	.06	.02	–.02	–.07	.02	–.00	–.10	–.01	–.02	–.03	.00	–.03
23 ■Degree to which retirement viewed as involuntary (i.e., “Pushed”)	1.6	.71	.19**	–.00	–.07	.04	.10	–.12*	.08	.11	–.03	–.10	.21**	–.00
24 ■Degree to which retirement viewed as involuntary (i.e., “Pulled”)	2.2	.78	–.13*	–.03	.07	–.07	–.08	.05	–.03	–.15**	.03	–.00	–.10	.01

Variable	M	SD	13	14	15	16	17	18	19	20	21	22	23
1 ♦Gender (1 = male; 2 = female)	1.2	.42											
2 ♦Age	64.4	4.5											
3 ♦Marital status (1 = married, 0 = else)	.81	.39											
4 ♦Ethnicity (1 = Caucasian, 0 = else)	.85	.35											
5 ♦Education level	2.8	1.1											
6 ♦Sector—manufacturing	.17	.37											
7 ♦Sector—transportation	.72	.45											
8 ♦Social desirability	3.1	.44											
9 Change in physical health (T1–T2)	3.3	1.4											
10 Change in household income (T1–T2)	1.6	2.6											
11 ■Emotional health	2.1	.53											
12 ■Death of family member/close friend	1.9	1.8											
13 ■Divorce/marital separation	.61	1.0	–										
14 ■Deterioration of health-family member	1.5	1.6	.35**	–									
15 ■Major personal injury/illness	1.3	1.6	.26**	.35**	–								
16 ♦Drinking Frequency Time 1	7.3	6.9	.04	–.005	–.027	–							
17 ♦Drinking Quantity Time 1	1.64	1.65	.07	–.002	–.05	.49**	–						
18 ♦Drinking Problem Index (DPI) Time 1	1.46	2.68	–.01	–.01	–.08	.17*	.38**	–					
19 ■Drinking Frequency Time 2	11.9	10.5	–.00	.00	–.02	.74**	.38**	.18**	–				
20 ■Drinking Quantity Time 2	2.7	1.5	–.00	–.05	–.06	.43**	.57**	.24**	.41**	–			
21 ■Drinking Problem Index (DPI) Time 2	1.3	2.9	.16**	.10	.02	.24**	.26**	.16**	.24**	.26**	–		
22 ♦Pre-Retirement Job Satisfaction	3.6	1.1	.04	–.05	–.04	.17*	.06	–.13*	.26**	.05	.13*	–	
23 ■Degree to which retirement viewed as involuntary (i.e., “Pushed”)	1.6	.71	.04	.07	.12*	.46**	.275**	.08	.43**	.24**	.13*	.20**	–
24 ■Degree to which retirement viewed as involuntary (i.e., “Pulled”)	2.2	.78	–.03	.08	–.04	–.30**	–.27**	–.16**	–.40**	–.23**	–.12*	–.10	–.33

*p < .05.

**p < .01.

♦Variable measured in T1.

■Variable measured in T2.

Table 2

Linear regressions testing the influence of the degree to which retirement viewed as involuntary (i.e., “Pushed”)/voluntary (i.e., “Pulled”), and job satisfaction on drinking frequency, drinking quantity, and drinking problem

Model variable	(1) ■ Drinking frequency as dependent		(2) ■ Drinking quantity as dependent		(3) ■ DPI as dependent	
	Model 1 Std. B	Model 2 Std. B	Model 3 Std. B	Model 4 Std. B	Model 5 Std. B	Model 6 Std. B
♦Gender (1 = male; 2 = female)	.125**	3.114**	-.087	-.086	.073	.025
♦Age	.019	.013	-.016	-.191**	-.046	-.166*
♦Marital status (1 = married; 2 = other)	.073	1.493	-.039	-.009	.112	.082
♦Ethnicity (1 = Caucasian; 2 = other)	.051	2.028	-.105	-.043	-.156*	-.080
♦Education	-.016	-.076	-.081	-.107	-.081	-.063
♦Sector-manufacturing	-.032	-.486	-.014	-.078	-.016	.001
♦Sector-transportation	-.044	-.255	.018	-.013	-.006	.076
♦Social desirability	-.050	-1.392	-.139**	.027	-.124*	.130
Change in physical health (T1–T2)	-.054	-.309	-.020	-.147**	.053	.039
Change in household income (T1–T2)	-.014	-.028	.136*	-.023	.008	-.027
■ Emotional health	-.002	.193	.020	.130*	.009	.148*
■ Death of family member/close friend	.061	.291	-.069	.026	-.032	-.022
■ Divorce/marital separation	-.030	-.393	-.018	-.067	.016	.120
■ Deterioration of health-family member	-.018	-.098	-.066	-.015	-.058	.058
■ Major personal injury/illness	-.058	-.276	-.087	-.071	.073	-.108
♦ Drinking frequency in Time 1	.491**	.543**				
♦ Drinking quantity in Time 1			.430**	.433**		
♦ DPI in Time 1					.139**	.238**
■ Retirement viewed as involuntary (pushed)	.334**	3.543**	.136*	.143*	.020	.025
■ Retirement viewed as voluntary (pulled)	-.159**	-1.888**	-.100	-.104	-.139*	.063
♦ Pre-retirement job satisfaction		1.256**		-.022		.193**
Retirement viewed as involuntary (pushed) × Job satisfaction		1.112*		-.064		.014
Retirement viewed as voluntary (pulled) × Job satisfaction		-.055		-.015		.237**
Model summary	Adjusted R ² = .646 ^ΔR ² = .120** N = 303	Adjusted R ² = .665 #ΔR ² = .020* N = 303	Adjusted R ² = .345 ^ΔR ² = .031** N = 303	Adjusted R ² = .347 #ΔR ² = .003 N = 303	Adjusted R ² = .116 ^ΔR ² = .027* N = 302	Adjusted R ² = .137 #ΔR ² = .020* N = 302

* $p < .05$.

** $p < .01$.

♦ Variable measured in T1.

■ Variable measured in T2.

^ Relative to the control model, which included gender, age, marital status, ethnicity, education, employment sector, social desirability, physical health, household income, emotional health, exposure to negative situations and the “Time 1” version of the dependent variable.

Relative to the main effect model.

pull perceptions and both the change in consumption frequency ($B = -.159, p < .01$), and the change in problem drinking as measured in terms of DPI ($B = -.139, p < .05$). The significant increase in the amount of variance explained above and beyond the control model including the control and Time 1 consumption/problem drinking variables only ($\Delta R^2 = 0.12 [p < .01]$, $0.031 [p < .05]$, $0.027 [p < .05]$ for the frequency, quantity, and DPI models, respectively) indicates that the inclusion of the push and pull perceptions significantly contributes to the explanatory power of these three models. Still, no significant effect was found for push perceptions with regard to problem drinking, nor for pull perceptions with regard to the change in consumption quantity.

In order to test **Hypotheses 2a** (positing that the positive association between a sense of being pushed into retirement and the change in alcohol consumption and problem drinking would be amplified as a function of pre-retirement job satisfaction) and **Hypotheses 2b** (positing that the inverse association between a sense of being pulled into retirement and the change in alcohol consumption and problematic drinking behavior would be attenuated as a function of pre-retirement job satisfaction), the interaction of centered push and centered job satisfaction, and of centered pull and centered job satisfaction, were entered into the model. These hypotheses were partially supported. Specifically, as shown in Model 2 in **Table 2**, the generally positive association between a sense of being pushed to retire and the change in the frequency of consumption was found to be amplified as a function of pre-retirement levels of job satisfaction (B for the interaction = $1.112, p < .05$). Similarly, as shown in Model 6 of **Table 2**, the generally inverse association of “pull” perceptions and the change in the severity of problem drinking (as assessed in terms of DPI) was shown to be attenuated and, indeed, reversed as a function of pre-retirement levels of job satisfaction (B for the interaction = $.237, p < .01$).

With respect to both of these models, the inclusion of both job satisfaction and its interaction with push and pull factors resulted in a significant increase in the total effect size ($\Delta R^2 = 0.02 [p < .05]$) for both the frequency of consumption, and for problem drinking) relative to the main effect models excluding these interactions. The nature of these two significant interaction effects is plotted in **Figs. 1 and 2**. **Fig. 1** shows that under conditions of high pre-retirement levels of job satisfaction, a

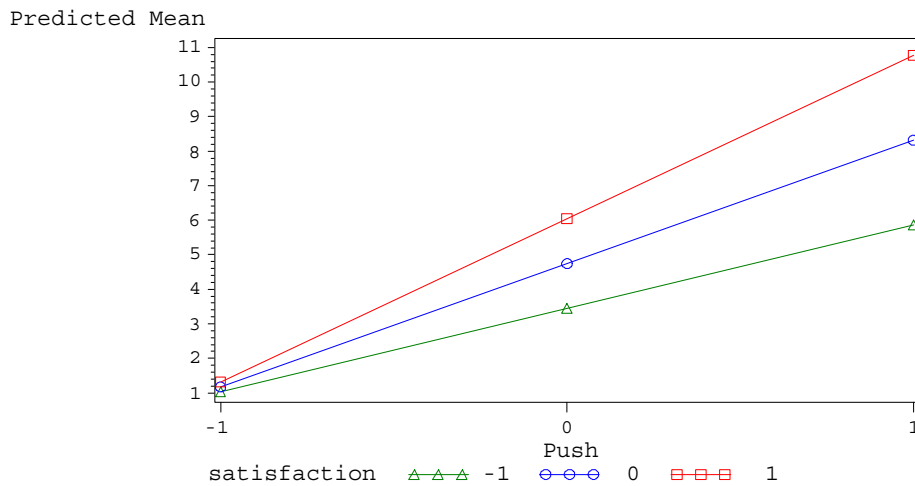


Fig. 1. Interactive effects of degree to which retirement is perceived as involuntary (i.e., pushed) and pre-retirement frequency of alcohol consumption.

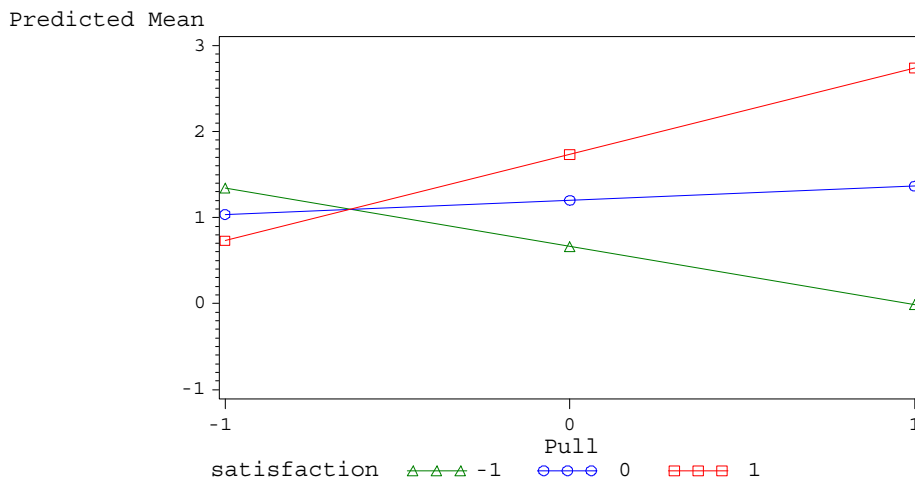


Fig. 2. Interactive effects of degree to which retirement is perceived as involuntary (i.e., pushed) and pre-retirement severity of drinking problems (DPI).

sense of being pushed into retirement is associated with a steeper push-drinking slope than under conditions of mean and lower pre-retirement levels of job satisfaction. In contrast, Fig. 2 suggests that while under conditions of low pre-retirement levels of job satisfaction (i.e., -1 standard deviation below the mean), there is the expected inverse association between the perceived voluntariness of the retirement decision (i.e., pull) and problem drinking, under conditions of mean pre-retirement job satisfaction, the link between perceived voluntariness of retirement and problem drinking is largely invariant, and under conditions of high (i.e., $+1$ S.D.) pre-retirement job satisfaction, the link between perceived voluntariness of retirement and problem drinking is positive.

The results of the simple slopes analyses of the degree to which retirement is perceived as involuntary (i.e., pushed factor) or voluntary (i.e., pulled factor), contingent on the level job satisfaction indicate that, in the case of frequency of consumption, the slope (effect) of push factors was significantly positive under conditions of both low ($B = 4.692, p < .001$) and high ($B = 8.495, p < .001$) pre-retirement job satisfaction, but significantly steeper in the case of the latter ($\Delta = 3.8, p < .001$). This means that when the level of pre-retirement job satisfaction is low, alcohol frequency increases as the perceived involuntariness of retirement increases. Yet, when the level of job satisfaction is high, this effect is significantly stronger. As for DPI, the slope of the pull factor was significantly negative under conditions of low pre-retirement job satisfaction ($B = -.885, p < .001$) but insignificant under conditions of high pre-retirement job satisfaction ($B = .686, p > .05$). These two slopes were also significantly different ($\Delta = 1.6, p < .001$). Thus, although the former slope was significant (negative) while the latter was insignificant (positive), the difference between the two slopes indicates that the negative relationship between the degree to which retirement is perceived as voluntary (i.e., pulled factor) and DPI becomes, as predicted, attenuated as the level of pre-retirement job satisfaction increases.

4. Discussion

Consistent with “push–pull” theory (Shultz et al., 1998), the findings reported above suggest that the degree to which retirement is cognitively framed as being motivated by voluntary or “pull” (as opposed to involuntary or “push”) factors

may play an important role in determining the extent to which retirement is associated with increased alcohol consumption or drinking problems. More specifically, even when controlling for pre-retirement drinking behavior, perceptions of retirement as resulting from involuntary decision are associated with greater alcohol consumption, while perceptions of retirement as the outcome of a more volitional process are associated with lower levels of alcohol consumption and drinking problems.

We believe that these main effects may be explained on the basis of stress-based theories of drinking behavior (Frone, 1999), which suggest that alcohol may be used as a means by which to self-medicate felt strain. To the extent that retirees frame their disengagement more as an involuntary decision, they may experience it as a stressful life event and thus turn to alcohol as a mode of self-medication. Furthermore, consistent with the job demand and control model (Karasek & Theorell, 1990), such felt strain may only be further exacerbated by a sense of limited control among those who viewed their retirement as something effectively “pushed” upon them.

In contrast, to the extent that retirees cognitively frame their disengagement as a voluntary process offering them relief from a job viewed as less satisfying, retirement may result in a decline in felt strain, and thus, in less of a need for self-medication. In such situations, consistent with stress-based alcohol theories (e.g., Frone, 1999), our findings suggest that perceptions of retirement as being more volitional (i.e., “pulled”) are associated with a reduction in consumption and/or problem drinking relative to pre-retirement patterns. To the extent that heavier patterns of alcohol consumption may be viewed as potentially inhibiting such volitional activity, those viewing their retirement as being more “pulled” may be motivated to reduce their consumption or better manage their drinking problems.

However, consistent with our hypotheses, we also found support for the notion that this main effect of perceived “push” and “pull” factors on the change in drinking behavior following retirement may itself be contingent on pre-retirement job attitudes. Specifically, we found that perceived pre-retirement job valence may influence the degree to which the cognitive framing of retirement as being motivated by push vs. pull factors influences the change in drinking behavior from pre- to post-retirement. Retirees’ pre-retirement job satisfaction was found to amplify the generally positive association between the degree to which retirement is framed as involuntary and the change in consumption frequency. Similarly, retirees’ pre-retirement job satisfaction was found to attenuate the generally inverse association between the degree to which retirement is framed as voluntary (pulled) and the change in the severity of problem drinking.

This moderating effect of pre-retirement job valence is consistent with the implications of earlier studies. For example, Kloep and Hendry (2006) report that those faring least well in retirement in their sample of Norwegian retirees were typically those individuals who had little drawing them to retire (i.e., little pull and likely dominance of push factors) and who reported a high degree of work salience. Similarly, consistent with the Hanisch and Hulin (1990) findings and the general principle underlying Exit, Voice, and Loyalty (EVL) theory (Hirschman, 1970)—namely that job-dissatisfied individuals seek relief by engaging in exit or withdrawal behaviors such as lateness, absenteeism, and retirement—, our findings suggest that to the degree that they gain such relief in the form of retirement, any tendency to use alcohol as a means by which to cope with the negative emotions generated by perceptions of retirement as being pushed upon them may be attenuated. This same principle may also explain the amplifying effect of high pre-retirement job satisfaction among those perceiving themselves to have been more “pushed” into retirement. Among these more satisfied employees, the stresses of unplanned or/and undesired disengagement from work may only be exacerbated by the sense of loss of an environment associated with generally positive valences, with this exacerbated stress potentially motivating more frequent alcohol consumption. Finally, this principle may also explain the attenuating effect of higher levels of pre-retirement job satisfaction on the generally inverse association between perceptions of retirement as being more voluntary (i.e., “pulled”) and drinking problems. Among more satisfied employees, even when retirement is the result of personal volition, it may still be associated with a sense of loss and, as such, negative emotions for which alcohol may serve as a coping mechanism.

Interestingly, we found no support for the notion that a sense of being pushed into retirement is associated with increases in the average quantity of alcohol consumed on each drinking occasion. This may have to do with the fact that the effects of alcohol at the cellular and organ levels are altered by physiological changes associated with aging. In particular, while the absorption of alcohol is equally rapid among all age groups (Scott & Mitchell, 1988), a decrease in lean tissue and water with a relative increase in fatty tissue in older age, may account for reduced tolerance to alcohol. Accordingly, a given amount of alcohol is distributed in a smaller volume, resulting in increased alcohol concentration with any given dose of alcohol (Smith, 1995). Therefore, it may be that retirees who use alcohol to self-medicate negative emotions resulting from perceptions of their retirement as being “pushed” or forced upon them need not consume large quantities of alcohol in order to feel the effects. In fact, most longitudinal data suggest little change in alcohol consumption as people age. Indeed, these studies suggest that to the extent that there is a change, due to the aforementioned physiological effects per drink as well as medical problems limiting older adults’ alcohol consumption, it is typically downward in nature (Adams & Cox, 1995). Thus while self-medication may result in more frequent consumption among older adults, it may not necessarily result in increases in the quantity of alcohol consumed per drinking occasion.

5. Limitations

The findings of our study should be considered in light of its limitations, which may also offer important research opportunities. One limitation of the findings is that they fail to consider the more “holistic” effects of push and pull factors on the

change in drinking behavior among those transitioning into retirement. Accordingly, we conducted an additional post hoc analysis testing the interactive effects of push and pull on all three drinking-related outcomes. The results indicate that while (as expected) the link between retirement “push” and frequency of consumption is significantly attenuated as a function of retirement pull ($p < .05$) and explains 5.7% additional variance in frequency, pull did not significantly attenuate the impact of push on either quantity of consumption or problem drinking (DPI). In this sense, this finding only further reinforces the notion that while both push and pull directly and interactively influence the frequency of consumption, it is the sense of being “pushed” (as opposed to “pulled”) into retirement that largely shapes the quantity of consumption, with problem drinking being largely unaffected by the direct and interactive effects of retirement push and pull.

A second study limitation concerns the self-reporting of the data on alcohol consumption. Such self-reports may be biased by the perceived social desirability of more conservative patterns of drinking and the absence of drinking problems. Although we included a measure of self-enhancement bias in all analyses, the observed variance in the dependent variables here may still be somewhat underestimated, with social desirability bias (particularly with respect to drinking problems) possibly contributing to the unexpectedly low correlations between the DPI score, and consumption frequency and quantity. Still, the most likely explanation for the low correlations between the DPI on the one hand, and frequency and quantity of consumption on the other, is that overall levels of consumption were generally low such that even relatively higher levels of alcohol consumption were still not high enough in most cases to necessarily result in the kinds of symptoms tapped by the DPI.

Third, our sample included only unionized, blue-collar workers whose motivations to retire may be different from non-union workers or those employed in other types of occupations. Fourth, while we focused on pre-retirement job satisfaction as a possible moderator of the impact of push/pull perceptions on the change in drinking behavior as individuals transit into retirement, other work-related variables such as pre-retirement pay and retirement benefits, supervisory behavior, and the employees' reliance upon workplace peers as a source of social support, may also serve as important moderators that should be investigated in the future. Fifth, we cannot rule out the possibility that heavy drinking patterns, in addition to being a consequence of retirement push, may also serve as an important antecedent of involuntary retirement perceptions. Indeed, as shown in Table 1, while problem drinking in Time 1 is unrelated to retirement push perceptions, Time 1 quantity and frequency levels are ($r = .28$ and $.46$, respectively; $p < .01$ in both cases). Finally, while we found no differences between those individuals included in our sample and those retirees for whom we lacked complete data over the two waves or those opting to remain in the workforce despite retirement eligibility at Time 2, our findings may nevertheless be subject to a certain degree of sample or selection bias.

6. Implications

Despite these limitations, our findings have important implications for research and practice. With regard to research, our findings shed light on at least two factors likely to condition the impact of retirement on the drinking behavior of older adults. Given the equivocal nature of recent findings regarding the impact of retirement, the results reported above suggest that both retirement agency and the cognitive framing of the pre-retirement situation (i.e., work-related attitudes and perceptions) are likely to play an important role in shaping the impact of retirement on the drinking behavior of older adults, with the latter conditioning the effects of the former. While there are likely to be numerous other work- and non-work-related factors conditioning the impact of retirement on drinking, the current study is significant in that it is the first to demonstrate the potential salience of such factors on problematic drinking. It is also significant in that it is the first study to demonstrate that the effects of retirement agency on an important parameter of retirement adjustment are themselves likely to be contingent upon individuals' cognitive framing of their pre-retirement situation. We encourage others to examine the extent to which these conditioning effects may be generalizable to other health- and adjustment-related retirement outcomes.

In terms of practical implications, to the extent that those more forced or “pushed” into retirement may be more susceptible to the development or exacerbation of a pattern of problematic drinking in retirement, employers, unions and policy makers may find it beneficial to more effectively encourage all soon-to-be retirement-eligible employees (regardless of when they “plan” to retire) to participate in retirement planning programs. Such programs may be used to encourage planned and voluntary exits, warn employees of the possible adverse health-related effects of unexpected or more “forced” retirement, and provide them with information as to how and where to seek help if such problems emerge. Furthermore, given the finding that even among those perceiving their retirement as being more volitional in nature (namely those who also report higher levels of pre-retirement job satisfaction), the severity of drinking problems may increase over the transition into retirement, employers and unions may want to expand the domain of their assistance benefits (e.g., EAP services) to include specialized prevention and treatment programs geared towards both retirement-eligible and retired employees.

References

- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422–436.
- Adams, W. L. (1996). Alcohol use in retirement communities. *Journal of the American Geriatrics Society*, 44, 1082–1085.
- Adams, W. L., & Cox, N. S. (1995). Epidemiology of problem drinking among elderly people. *The International Journal of the Addictions*, 30, 1693–1716.
- American Medical Association Council on Academic Affairs. (1996). Alcoholism in the elderly. *Journal of the American Medical Association*, 275, 797–801.

- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item version of the depression anxiety stress scales in clinical groups and a community sample. *Psychological Assessment, 10*, 176–181.
- Bacharach, S., Bamberger, P., Doveh, E., & Cohen, A. (2007). Retirement, social support and drinking behavior: A cohort analysis of males with a baseline history of problem drinking. *Journal of Drug Issues, 37*, 717–736.
- Bacharach, S. B., Bamberger, P. A., & Sonnenstuhl, W. J. (2001). *Mutual aid and union renewal: Cycles of logic of action*. Ithaca, NY: ILR Press.
- Bamberger, P. A., Sonnenstuhl, W. J., & Vashdi, D. (2006). Screening old, blue collar workers for drinking problems: An assessment of the drinking problem index. *Journal of Occupational Health Psychology, 11*, 119–134.
- Breslow, R. A., Faden, V. B., & Smothers, B. (2003). Alcohol consumption by elderly Americans. *Journal of Studies on Alcohol, 64*, 884–892.
- Cherpitel, C. J., Ye, Y., Bond, J., Borges, G., MacDonald, S., Stockwell, T., et al. (2007). Validity of self-reported drinking before injury compared with a physiological measure: Cross-national analysis of emergency-department data from 16 countries. *Journal of Studies on Alcohol and Drugs, 68*, 296–302.
- Conigliaro, J., Kraemer, K., & McNeil, M. (2000). Screening and identification of older adults with alcohol problems in primary care. *Journal of Geriatric Psychiatry and Neurology, 13*, 106–114.
- Dooley, D., & Prause, J. (1997). Effect of favorable employment change on alcohol abuse: One- and five-year follow-ups in the national longitudinal survey of youth. *American Journal of Community Psychology, 25*, 787–807.
- Ekerdt, D. J., de Labry, L. O., Glynn, R. J., & Davis, R. (1989). Change in drinking behaviors with retirement: Findings from the normative ageing study. *Journal of Studies on Alcohol, 50*, 347–353.
- Finney, J. W., Moos, R. H., & Brennan, P. L. (1991). The drinking problems index: A measure to assess alcohol-related problems among older adults. *Journal of Substance Abuse, 3*, 395–404.
- Floyd, F. J., Haynes, S. N., Doll, E. R., Lemsky, C., Burgy, T. M., & Heilman, N. (1992). Assessing retirement satisfaction and perceptions of retirement experiences. *Psychology and Aging, 7*, 609–621.
- Frone, M. R. (1999). Work stress and alcohol use. *Alcohol Research and Health, 23*, 284–291.
- Gallo, W. T., Bradley, E. H., Siegel, M., & Kasl, S. V. (2001). The impact of involuntary job loss on subsequent alcohol consumption by older workers: Findings from the health and retirement survey. *Journal of Gerontology: Social Sciences, 56B*, 1, 3–9.
- Gallo, W. T., Teng, H. M., Falba, T. A., Kasl, S. V., Krumholz, H. M., & Bradley, E. H. (2006). The impact of late career job loss on myocardial infarction and stroke: A 10 year follow up using the health and retirement survey. *Occupational and Environmental Medicine, 63*, 683–687.
- Goffman, E. (1974). *Frame analysis*. Cambridge, Mass: Harvard University Press.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison Wesley.
- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior, 37*, 60–78.
- Herzog, A. R., House, J. S., & Morgan, J. N. (1991). Relation of work and retirement to health and well-being in older age. *Psychology and Aging, 6*, 202–211.
- Hirschman, A. O. (1970). *Exit, voice and loyalty: Responses to decline in firms, organizations and states*. Cambridge, MA: Harvard University Press.
- Isaksson, K., & Johansson, G. (2000). Adaptation to continued work and early retirement following downsizing: Long-term effects and gender differences. *Journal of Occupational and Organizational Psychology, 73*(2), 241–256.
- Jasso, G. (1990). Methods for the theoretical and empirical analysis of comparison processes. In C. C. Clifford (Ed.), *Sociological methodology* (pp. 369–419). Oxford: Blackwell.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, productivity and the reconstruction of working life*. New York: Basic Books.
- Kloep, M., & Hendry, L. B. (2006). Pathways into retirement: Entry or exit? *Journal of Occupational and Organizational Psychology, 79*, 569–593.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. C. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago: Rand McNally.
- Martin, J. C., Blum, T. C., & Roman, P. M. (1992). Drinking to cope and self-medication: Characteristics of jobs in relation to workers' drinking behavior. *Journal of Organizational Behavior, 131*, 55–72.
- Pond, S. D., & Geyer, P. D. (1991). Differences in the relation between job satisfaction and perceived work alternatives among older and younger blue collar workers. *Journal of Vocational Behavior, 39*, 251–262.
- Perreira, K. M., & Sloan, F. A. (2001). Life events and alcohol consumption among mature adults: A longitudinal study. *Journal of Studies on Alcohol, 62*, 501–508.
- Richman, J. A., Zlatoper, K. W., Zackula Ehmke, J. L., & Rospenda, K. M. (2006). Retirement and drinking outcomes: Lingering effects of workplace stress? *Addictive Behaviors, 31*, 767–776.
- Sen, A. (1987). *On ethics and economics*. Oxford: Blackwell.
- Scott, R. B., & Mitchell, M. C. (1988). Aging, alcohol and the liver. *Journal of Geriatric Sociology, 36*, 255–265.
- Shultz, K. S., Morton, K. R., & Weckerle, J. R. (1998). The influence of push and pull factors on voluntary and involuntary early retirees' retirement decision and adjustment. *Journal of Vocational Behavior, 53*, 45–57.
- Smith, J. W. (1995). Medical manifestations of alcoholism in the elderly. *The International Journal of Addiction, 30*, 1749–1798.
- Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology, 28*, 191–193.
- Theeuwes, J., & Linndeboom, M. (1995). Oudere werknemers en het stoppen met werken: een kwestie van vraag en aanbod [Older workers and retirement: A question of demand and supply]. In B. C. M. Nitsche (Ed.), *Ouderen, Wetenschap en Beleid II*. Utrecht: Nederlands Instituut voor Gerontologie.
- van Solinge, H. (2007). Health change in retirement: A longitudinal study among older workers in the Netherlands. *Research on Aging, 29*, 225–256.
- van Solinge, H., & Henkens, K. (2007). Involuntary retirement: The role of restrictive circumstances, timing, and social embeddedness. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 62*, 295–303.
- Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.
- Walton, M. (2000). Stability in the drinking habits of older problem-drinkers recruited from nontreatment settings. *Journal of Substance Abuse Treatment, 18*, 169–177.
- Williamson, R. C., Rinehart, A. D., & Black, T. O. (1992). *Early retirement: Promises and pitfalls*. New York: Insight Books/Plenum Press.