

Alternative Criterion Variables Against Which to Assess the Impacts of Constraints to Leisure

Anna Nadirova

Alberta Learning, Edmonton, Alberta, Canada

Edgar L. Jackson

Department of Earth and Atmospheric Sciences, University of Alberta

Results from a Canadian questionnaire survey that investigated constraints to leisure provide empirical evidence of the relative importance of various criterion variables (such as the desire but inability to participate, and ceasing participation) against which to measure the impact of constraints to leisure. The findings show how people themselves believe their leisure to be compromised, as opposed to how researchers and practitioners may assume constraints to affect leisure. The study also provides support for the conceptualization of constrained leisure as a non-homogeneous phenomenon, and generates a new proposition about the sequential experience and negotiation of leisure constraints.

KEYWORDS: *Leisure constraints, heterogeneity, hierarchical constraints model, negotiation of leisure constraints.*

Criticisms of Leisure Constraints Research

In recent years, much of the work in the field of constraints to leisure has come under criticism. A frequently expressed concern has been the dual charge that constraints researchers have focussed unduly on participation as the realm of leisure in which constraints are assumed to be perceived and experienced, and that they have concentrated on what Crawford and Godbey (1987) called "structural" constraints. This type of constraint is assumed to intervene between preferences and participation, blocking or inhibiting participation once a preference has been formed. Less empirical attention has been paid to antecedent constraints, i.e., those assumed to influence leisure preferences. In turn, it is argued, other facets of constrained leisure beyond the simplistic participation-nonparticipation dichotomy should be investigated as potential outcomes of the experience of constraints. Stated another way, the range of criterion variables against which to measure the impact of constraints to leisure needs to be broadened (Jackson & Scott, 1999).

For the most part, criticisms such as these have been raised in informal settings, such as during panel discussions and in question-periods following the presentation of papers at conferences, in face-to-face conversations, in

Dr. Anna Nadirova recently completed her doctorate in the Department of Earth and Atmospheric Sciences, University of Alberta, Canada. Dr. E. L. Jackson is Professor in the same Department. This study is based on data collected by Dr. Nadirova for her dissertation. She may be contacted at Anna.Nadirova@gov.ab.ca.

leisure-related "listserv" mailing lists, and in personal e-mail. In addition, concerns of the kind noted above have occasionally found their way into formal conference presentations and the published literature. Most notably, an article by Samdahl and Jekubovich (1997) was not only an interpretation of qualitative data from both a "constraints perspective" and a "non-constraints perspective" but also a thoughtful and persuasive critical attack on the assumptions, methods, findings and interpretations of leisure constraints research. Samdahl, Hutchinson, and Jacobson (1999) has extended this critique in a paper recently presented at the Ninth Canadian Congress on Leisure Research. Similar concerns have been raised by Shaw (1999) in a review of knowledge about gender and leisure, in which constraints concepts and results were a crucial component. From a more "pro-constraints-research" standpoint, they have also been acknowledged and discussed in a retrospective and prospective review of the field by Jackson and Scott (1999).

A distinct but related strand in the criticism of leisure constraints research has arisen out of the counterintuitive finding that leisure choices may not be related to the experience of constraints when the desire but inability to participate in an activity (participation vs nonparticipation) is used as the criterion variable against which to measure their impact. This unexpected finding was reported by Kay and Jackson (1991) in a British study. Simultaneously, Shaw, Bonen, and McCabe (1991), in an analysis of Canadian national data, found that levels of leisure participation either were not affected by or were inversely associated with the experience of constraints. On this basis, one might argue that constraints are irrelevant to people's leisure choices. However, it can be countered that participation-nonparticipation per se might not be the most appropriate behavioral variable against which to measure the impact of constraints. It has also been suggested that *behavioral* measures of the impact of constraints should be dropped in favor of, or complemented by, indicators of impacts on enjoyment and the realization of benefits, i.e., the leisure *experience* (Goodale & Witt, 1989).

To summarize, empirical evidence suggests that narrowly-defined and perhaps inappropriate measures have been used as criterion variables to assess the impact of leisure constraints. Moreover, strictly behavioral measures may fail to capture the most important ways in which constraints serve to compromise leisure. In this context, the first purpose of this study is to report on and interpret findings from a questionnaire survey in which respondents' answers to a question about how their leisure was constrained permit the identification of key criterion variables for further research. This identification is thus based on empirical evidence as to how *people themselves* view the aspects of their leisure that are constrained, rather than on researchers' and practitioners' untested assumptions as to what these aspects might be.

The "Heterogeneity Issue"

A parallel theme in the constraints literature since the end of the 1980s has been what Jackson and Scott (1999) call the "heterogeneity issue." Sev-

eral leisure researchers have addressed the extent to which similar or different arrays and intensities of constraints are associated with various aspects or domains of "constrained leisure." These domains may include the desire but inability to participate in a new activity, ceasing participation in a former activity, the inability to participate as frequently as desired, and negative impacts on the quality of the leisure experience (e.g., lowered levels of satisfaction and enjoyment, or the failure to realize anticipated or desired benefits).

The issue was first addressed empirically by Jackson and Dunn (1991), who compared results from two large-scale public questionnaire surveys conducted in the Province of Alberta, Canada, and found that reasons for ceasing participation differed significantly from barriers to participation in a desired activity. Similar findings have been reported by Hultsman (1993), Jackson and Rucks (1993), and Searle and Brayley (1992). The results of comparative studies of this kind have been quite consistent: there is a common core of constraints that tends to emerge regardless of the criterion variable chosen. However, the relative strength and importance of items and dimensions vary sufficiently among criterion variables to warrant caution in assuming that, for example, barriers to participation in leisure in general or in a specific activity are the same as the reasons why people cease participating or are unable to devote more time to leisure.

The second purpose of this study is to add to the "heterogeneity issue." This is accomplished by first comparing the absolute and relative importance of the types of constraints associated with various aspects of constrained leisure, and then interpreting the results to propose a new hypothesis, namely that structural constraints may be experienced in a sequential fashion.

Method

The data were collected in a self-administered drop-off/mail-back questionnaire survey conducted in several communities in Edmonton, Alberta. Five hundred questionnaires were delivered to randomly-selected households in the spring of 1996; 296 usable questionnaires were returned, for a response rate of 59.2%. The survey covered a wide range of questions related to people's leisure behavior and experience. Data for this article are derived from the following questions. First, respondents were asked whether they felt themselves to be constrained in their leisure, by answering "yes" or "no" to the question, "Do you feel that the amount of your leisure time or the type of recreation activities that you want to do are constrained (restricted or inhibited) in any way?" People who answered "yes" were then asked to check all of the following aspects of constrained leisure that were relevant to them: (1) "There are activities that I would like to start, but can't"; (2) "I have stopped doing activities that I did in the past, even though I would still like to do them"; (3) "I cannot participate as often as I would like"; (4) "I do not enjoy activities as much as I might otherwise." Again, this was a "yes/

no" response for each category. Finally, the same subgroup was asked to evaluate the importance of 21 constraints-related items, derived from previous leisure constraints research, using a 4-part response-scale ranging from 1 = "not at all important" to 4 = "very important." This was a generic scale designed not only to measure the absolute and relative importance of constraints but also to permit comparisons of constraints mean-scores among the four criterion variables measured in the preceding question.

The data were analysed using simple statistical techniques to identify patterns within the findings and to assess relationships among key variables. First, a "total constraints score" was calculated by summing and averaging each respondent's score on all 21 items. The theoretical range was 21 to 84; the actual range was 23.1 to 71.4, and the mean was 1.63. Secondly, a varimax rotated factor analysis was performed to identify categories of constraints for further analysis. An initial solution produced six factors, but one of these consisted of a single item ("Recreational facilities and areas are overcrowded"). This item was dropped and a second factor analysis was performed on the remaining 20 items. Five factors with eigenvalues greater than 1.0 emerged (Table 1). Dimensions of constraints were created by summing each individual's scores on all of the items within each factor analysis-derived category and dividing by the number of items in the category. A reliability analysis was then performed on each of the five dimensions; Cronbach's alpha coefficients were acceptable, ranging from 0.72 to 0.80.

Associations between total and dimension mean-scores and the criterion variables were analysed in three paired comparisons: (1) cannot participate as often as desired/ceased a former activity; (2) cannot participate as often as desired/would like but unable to start a new activity; and (3) ceased a former activity/would like but unable to start a new activity. In each case, only respondents who checked one *or* the other criterion variable in the pair were included. For example, if a person checked both the desire but inability to participate and reported having ceased an activity, he or she was excluded from that particular comparison but not necessarily from the other two. This procedure reduced the sub-sample size for statistical analysis but sidestepped the problem of double-counting. Also, differences in scores on each criterion variable were more clear-cut than would have occurred if this "exclusion procedure" had not been followed.

Results

The Relative Importance of Alternative Criterion Variables

Among the 203 respondents (68.6% of the sample) who identified themselves as being constrained in their leisure, being unable to participate as often as desired was mentioned most frequently (by 72.4%) as the aspect of leisure that was constrained. This was followed by ceasing participation in a

TABLE 1
Varimax Rotated Factor Analysis: 20 Constraints Items

	Factor 1 (Isolation)	Factor 2 (Knowledge)	Factor 3 (Skills)	Factor 4 (Costs)	Factor 5 (Commitments)
Factor 1: Isolation					
There is no opportunity near my home	0.71	0.23	0.00	0.12	0.00
I don't feel safe or secure	0.67	0.13	0.30	0.00	0.00
Recreational facilities are poorly kept or maintained	0.65	0.36	0.14	0.00	0.00
Feel bored	0.64	0.13	0.32	0.00	0.00
Lack of transportation	0.63	0.13	0.00	0.26	0.23
I consider an activity in which I would like to participate as not appropriate for my age/gender	0.56	0.16	0.00	0.00	0.00
Factor 2: Knowledge					
I don't know where I can take part in the activity	0.17	0.80	0.00	0.17	0.15
I don't know where I can learn the activity	0.34	0.74	0.18	0.00	0.00
Poor choice of facilities/programs	0.45	0.63	0.00	0.00	0.00
It is difficult to find others to participate with	0.17	0.62	0.27	0.12	0.00
Factor 3: Skills					
O do not have physical abilities	0.00	0.00	0.73	0.00	0.23
My skills are not good enough	0.18	0.28	0.71	0.00	0.00
I am not at ease in social situations	0.00	0.00	0.71	0.11	0.00
Feel no energy and motivation	0.39	0.00	0.61	0.00	0.25
Factor 4: Costs					
The cost of equipment, material and supplies	0.00	0.24	0.00	0.88	0.00
Admission fees or other charges for facilities and programs	0.00	0.22	0.00	0.86	0.10
The cost of transportation	0.45	0.13	0.00	0.67	0.00
Factor 5: Time and commitments					
Too busy with my family	0.00	0.00	0.16	0.00	0.82
Home chores	0.00	0.00	0.00	0.00	0.80
Too busy with my work	0.00	0.00	0.00	0.12	0.74
<hr/>					
% of variance explained	16.37	12.29	11.48	10.67	10.46
Cumulative % of variance explained	16.37	28.66	40.14	50.81	61.27
Cronbach's <i>alpha</i> (scale reliability)	0.80	0.77	0.72	0.79	0.72

former activity (56.7%), desiring but being unable to start a new activity (33.5%), and lastly by not enjoying activities (mentioned by only 4.4%; because of the small numbers involved, this last aspect was excluded from further analysis). The full data for answers to this question are presented in Table 2.

TABLE 2
Respondents Identifying an Aspect of Their Leisure as Being Constrained

Criterion	N	% of sample (N = 296)	% of "constrained group"* (N = 203)
I cannot participate as often as I would like	147	49.7	72.4
I have stopped doing activities that I did in the past, even though I would still like to do them	115	38.9	56.7
There are activities that I would like to start, but can't	68	23.0	33.5
I do not enjoy activities as much as I might otherwise	9	3.0	4.4

*Respondents who answered "Yes" to the question, "Do you feel that the amount of your leisure time or the type of recreation activities that you want to do are constrained (restricted or inhibited) in any way?"

Dimensions of Constraints

Based on calculating mean scores for the "constrained sub-sample," the relative intensity of the five dimensions of constraints ranked as follows: (1) Time and commitments (mean = 2.52); (2) Costs of participating (2.01); (3) Lack of skills (1.49); (4) Lack of knowledge (1.34); and (5) Social and geographical isolation (1.33). The significance of this specific finding lies not so much in the magnitude of the scores or in the new information or knowledge contributed, but rather in establishing the credibility of the results. The number of constraints dimensions, the items they contained, and their relative ranking (in particular the placement of the time and costs dimensions) are comparable with findings reported in most previous studies (see Jackson & Scott, 1999, for a summary).

Variations in Constraints Among Aspects of Constrained Leisure

A sequence of analyses was conducted to investigate differences in mean scores on each of the factor analysis-based constraints dimensions identified above in relation to three of the four criterion variables of constrained leisure: inability to participate in a desired activity; inability to participate as often as preferred; and ceasing participation in a former activity. In addition, the total constraints score was assessed for its associations with each of the aspects of constrained leisure. The results, which are presented in Table 3, may be summarized as follows:

1. No differences were found among the criterion variables with respect to scores on the total constraints measure.

TABLE 3
Variations in Scores on Constraints Dimensions among Criterion Variables*
(Paired Comparisons)

	Time	Costs	Skills	Knowledge	Isolation	Total Constraints Score
"Cannot participate as often"						
vs "Stopped doing activities"						
Cannot participate as often (<i>N</i> = 71)	2.78	1.89	1.32	1.24	1.24	1.59
Stopped doing activities (<i>N</i> = 39)	2.17	2.32	1.67	1.38	1.39	1.66
<i>F</i>	14.02	5.51	9.90	2.14	2.67	1.10
<i>p</i> <	0.001	0.05	0.01	n.s.	n.s.	n.s.
"Cannot participate as often"						
vs "Would like to start"						
Cannot participate as often (<i>N</i> = 93)	2.62	1.90	1.40	1.30	1.28	1.60
Would like to start (<i>N</i> = 14)	1.86	2.19	1.71	1.36	1.57	1.69
<i>F</i>	10.82	1.57	3.91	0.13	4.19	0.71
<i>p</i> <	0.001	n.s.	0.05	n.s.	0.05	n.s.
"Stopped doing activities"						
vs "Would like to start"						
Stopped doing activities (<i>N</i> = 70)	2.31	2.11	1.62	1.38	1.36	1.66
Would like to start (<i>N</i> = 23)	2.54	2.00	1.54	1.24	1.41	1.65
<i>F</i>	0.89	0.24	0.29	1.13	0.15	0.01
<i>p</i> <	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

*Based on a response-scale of 1 = "Not at all important"; 2 = "Somewhat important"; 3 = "Important"; 4 = "Very important."

2. Some differences existed between the aspects of constrained leisure with respect to the absolute scores and relative ranking of the dimensions.
3. Time and commitments were more frequently mentioned as a reason for being unable to participate as often as desired, whereas costs and lack of skills were more frequently mentioned as reasons for ceasing or being unable to participate in the first place.

Discussion

The study reported here represents an attempt to move beyond the frequently criticized "limited perspective of leisure constraints research" (Samdahl & Jekubovich, 1997), which has focussed primarily on the behavioral outcomes of constraints, and in particular on participation versus non-participation. Three main inferences can be drawn from the study. First, the aspect of leisure which has most frequently been used as the context within which to measure perceptions and experiences of constraints (desire but inability to participate), and the one on which a great deal of theoretical

and empirical development in the field has been based, ranked only third among the four aspects included in this study. The single most constrained aspect of leisure was inability to participate as often as one would like. What this finding suggests is that constraints less frequently block *absolute* participation in desired activities than they inhibit the *frequency* or *intensity* of involvement in activities in which at least some level of participation occurs. On the other hand, the aspect of constrained leisure which some scholars have proposed as potentially the most fruitful focus for leisure constraints research (negative effects on enjoyment), not only ranked last among the four measures but was relevant to only a tiny proportion of the sample. Thus, it seems that if people are able to participate, they are generally satisfied with their leisure.

Second, the data on associations between the total constraints score and dimension scores, and aspects of constrained leisure indicate that it is not the *level* or *intensity* of constraints that distinguishes among the aspects of constrained leisure, but rather the *nature* of the constraints experienced. This finding is consistent with and lends further support to the concept of constraint as a non-homogeneous concept, as previously reported by Jackson and Dunn (1991), Searle and Brayley (1992), Hultsman (1993), and Jackson and Rucks (1993).

Third, and most important, differences in the *types* of constraints between aspects of constrained leisure suggest a new interpretation about the experience of and response to structural constraints. Previous research, both theoretical and empirical, has proposed and verified that the three categories of constraints (intrapersonal, interpersonal, and structural) are encountered and negotiated in a sequential, hierarchical fashion (Crawford, Jackson, & Godbey, 1991; Jackson, Crawford, & Godbey, 1993; Raymore, Godbey, Crawford, & von Eye, 1993). However, no thought appears to have been given to the possibility that constraints *within* one of these categories might also be encountered sequentially, depending on the stage or level of participation. The present results suggest that factors such as costs and lack of skills act as the main barriers to initial participation. Once some level of participation has been achieved, people may then begin to find the intensity or frequency of their participation limited by time commitments. Ceasing participation will likely not result from time commitments, but will occur if barriers of costs or lack of skills are encountered. In other words, if people begin an activity but discover that it is too costly or too difficult, they will drop out. If these barriers are not encountered but time is limited, leisure may be compromised by a reduction in the amount of time that can be spent in the activity or in leisure in general.

Conclusions

In response to criticisms of leisure constraints research, this study has broadened the range of criterion variables (domains of constrained leisure) against which to assess the impact of constraints. A hitherto-neglected mea-

sure of negative impacts on the leisure experience was added to the more conventional indicators of behavioral outcomes. This strategy permitted assessment of the relative importance of domains of constrained leisure, measured with respect to the numbers of people experiencing them. The analysis showed (1) that experiential impacts of leisure constraints are less frequently and widely experienced impacts of constraints than behavioral; and (2) that people's perceptions of constraints outcomes are not necessarily the same as what researchers and practitioners may assume them to be. The study also enhanced understanding of the "heterogeneity issue" by distinguishing between the criterion variables in relation to constraints. It was shown that the domains vary with respect to types of constraints rather than their overall intensity.

These findings are important for future research in that they point researchers (and practitioners) toward the most appropriate criterion variables to include in studies designed to assess the effects of constraints on people's leisure lives. They also indicate to practitioners what domains of leisure and categories of constraints to target in the development and implementation of constraints alleviation strategies. For example, it may be more efficient to use resources to enable people to participate at desired levels (e.g., by timing programs and facility availability to suit people's schedules better) and encouraging people to continue participating (e.g., by providing programs to advance skills development and on-site learning) than to try to attract new participants. More generally, the findings of this study help to remind researchers and practitioners to be more sensitive to the perceptions and experiences of their research subjects and clientele, rather than simply assuming what these preferences and constraints are.

In addition, a new proposition emerged from the study concerning sequential encounters with leisure constraints, namely that different types of constraints within a single general category (in this case structural constraints) might be experienced hierarchically. For example, the experience of structural constraints could start with financial problems (costs) and lack of skills (which could be major barriers to participation), continue with time commitments (which limit the level of involvement), and conclude with problems of costs and skills (which may influence people to cease participating in an activity). This new proposition represents a substantial addition to the understanding of how people experience leisure constraints. In particular, it broadens conceptualizations of leisure constraints negotiation as originally proposed by Jackson et al. (1993), indicating that negotiation processes associated with critical points in the hierarchical model may occur *within* a category of constraints as well as *between* categories. It should therefore be included in future investigations of the process of leisure constraints negotiation.

References

- Crawford, D. W., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences*, 9, 119-127.

- Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. *Leisure Sciences, 13*, 309-320.
- Goodale, T. L., & Witt, P. A. (1989). Recreation non-participation and barriers to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Understanding leisure and recreation: Mapping the past, charting the future* (pp. 421-449). State College, PA: Venture Publishing, Inc.
- Hultsman, W. Z. (1993). Is constrained leisure an internally homogeneous concept? An extension. *Journal of Leisure Research, 25*, 319-334.
- Jackson, E. L., Crawford, D. W., & Godbey, G. (1993). Negotiation of leisure constraints. *Leisure Sciences, 15*, 1-11.
- Jackson, E. L., & Dunn, E. (1991). Is constrained leisure an internally homogeneous concept? *Leisure Sciences, 13*, 167-184.
- Jackson, E. L., & Rucks, V. C. (1993). Reasons for ceasing participation and barriers to participation: Further examination of constrained leisure as an internally homogeneous concept. *Leisure Sciences, 15*, 217-230.
- Jackson, E. L., & Scott, D. (1999). Constraints to leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 299-321). State College, PA: Venture Publishing, Inc.
- Kay, T., & Jackson, G. (1991). Leisure despite constraint: The impact of leisure constraints on leisure participation. *Journal of Leisure Research, 23*, 301-313.
- Raymore, L. A., Godbey, G. C., Crawford, D. W., & von Eye, A. (1993). Nature and process of leisure constraints: An empirical test. *Leisure Sciences, 15*, 99-113.
- Samdahl, D. M., Hutchinson, S. L., & Jacobson, S. (1999). Navigating constraints? A critical commentary on negotiation in leisure studies. Paper presented at the 9th Canadian Congress on Leisure Research, Acadia University, Wolfville, Nova Scotia.
- Samdahl, D., & Jekubovich, N. (1997). A critique of leisure constraints: Comparative analyses and understandings. *Journal of Leisure Research, 29*, 430-452.
- Searle, M. S., & Brayley, R. E. (1992). Is constrained leisure an internally homogeneous concept? A further examination. Paper presented at the NRPA Symposium on Leisure Research, Cincinnati, Ohio.
- Shaw, S. M. (1999). Gender and leisure. In E. L. Jackson & T. L. Burton (Eds.), *Leisure studies: Prospects for the twenty-first century* (pp. 271-281) State College, PA: Venture Publishing, Inc.
- Shaw, S. M., Bonen, A., & McCabe, J. F. (1991). Do more constraints mean less leisure? Examining the relationship between constraints and participation. *Journal of Leisure Research, 23*, 286-300.