Nature-based artificial recreation environments: typology, empirical correlates and implications

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Participation trends in outdoor recreation are driven by social, environmental, economic and technical changes. To a large extent, the latter two have improved our possibilities to access, experience and enjoy the outdoors – while at the same time many outdoor activities are increasingly becoming mechanized (Fredman & Heberlein 2003), dependent on facilities (Cordell & Betz 2000) and information technology (Buhalis 2000), or even physically displaced to indoor environments (Attarian 1999, Lobin & Maindok 2007) and virtual reality (Kurtzman & Zauhar 1999). This implies that artificial (man-made) objects and/or environments are becoming more important for our leisure experiences and the strict demarcation between 'authentic' and 'artificial' has vanished. The aim of this presentation is to recognize a typology of nature-based artificial recreation environments; to provide empirical correlates with preferences for them; and to elaborate on some of the possible implications.

According to Britton (1991), leisure spaces can be hierarchized in terms of the nature of the escape they are designed to provide, the social groups which use them and their physical characteristics. He argues that there is a continuum from places offering what is often considered material, mundane and superficial experiences (e.g. amusement parks) to those providing the spiritual and genuine (e.g. wilderness areas). In a similar fashion, nature-based artificial recreation environments can be typologized along a continuum (c.f. Swarbrooke et al. 2003) ranging from the genuine natural to virtual nature (electronic):

- Genuine natural (environments without artificial components, e.g. wilderness)
- Devices (equipment, gadgets etc.)
- Artificial elements (boardwalks, bridges, snowmaking, man-made lakes etc.)
- Artificial outdoor environments (safari parks, adventure parks etc.)
- Artificial indoor environments (water parks, climbing walls, ski-tunnels and ski-halls etc.)
- Virtual nature (computer images, webcams, virtual worlds etc.)

For the purpose of this presentation, empirical enquiries on preferences for artificial recreation environments are made based on two data sources: (i) a sample of the Swedish population extracted from an Internet panel (N=2000) and (ii) a sample of Finnish cross-country skiers answering a web-based survey (N=744). The Swedish data (available in spring 2010) is designed to test both participation in, and preferences for, artificial recreation environments among the general population according to the typology presented above. For the analysis of the Finnish sample we used an index based on skiers' preferences for artificial snow and ski tunnels (i.e. 'artificial elements' and 'artificial indoor' following the typology above). A binary Logit model was used to investigate the joint effects of several explanatory variables using respondents with 'low artificial preferences' (n=231) and 'high artificial preferences' (n=139) as the dependent variable (Table 1).

We found that preferences for artificial skiing environments are more likely among male skiers, individuals with fitness as a motivator for skiing, more frequent skiers, and skiers who are willing to travel to distant locations in order to pursue the skiing activity. Age, income, nature experience and social motivators for skiing were among the factors which were not associated with preferences for artificial skiing environments.

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Table 1. Binary Logit model[1] of preferences for artificial skiing environments

	B	Sig.
Age	-0.11	0.41
Gender[2]	-0.70	**0.03**
Income	-0.01	0.85
Staying fit[3]	1.22	**0.00**
Nature experience[3]	0.19	0.58
Skiing with family/friends[3]	-0.25	0.41
Skiing frequency[4]	0.71	**0.00**
Distance to ski area[5]	0.17	**0.01**
Constant	-3.92	0.00

1) -2 Log likelihood 301.86, Cox & Snell R Square 0.36, Nagelkerke R Square 0.49
2) Male = 0, female =1
3) Motivators for skiing (1=yes, 0=no)
4) Number of skiing days per season
5) Maximum travel distance to go skiing

There are several possible implications of nature-based artificially constructed recreation environments (see Swarbrooke et al. 2003). Environmentally, they may have less impact on the environment (e.g. less travel if located close to populated areas) and less ecological impact if substituted for visits to sensitive natural areas, but they could also trigger more travel as attractions in the tourism system (cf. our results from Finland above). Commercially they can provide opportunities for economic development. Increased costs to participate (e.g. admission fees) could however also exclude certain groups from participation. Socially, artificial recreational environments may imply increased access to activities, greater social interaction, reduced safety risks and reduced crowding at popular sites. They can also allow physical activity in controlled environments, and serve as 'demand shifters' in case people are introduced to activities they later seek to do in natural environments. They could also provide sustained participation possibilities under altering environmental conditions caused for, by example, climate change.

The empirical correlates presented here provide an exploratory examination to better understand preferences for artificial recreation environments. Further inquiries into this matter will advance our knowledge on the human-nature relationship, substitutability in nature experiences and natural resource commodification processes.

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