

**Sport Subcultures and Their Potential for Addressing
Environmental Problems: The Illustrative Case of Disc Golf**

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Abstract

This study attempts to glean insight into the subculture of disc golfers and to assess how the knowledge about this particular subculture could be utilized for the management of environmental problems in recreation. The research is based on ethnography, incorporating informal interviews and field observations. Data revealed that in general disc golfers were lacking knowledge about the environmental consequences of their actions associated with playing the sport of disc golf. Data also uncovered that players had strong attachment to the park where they played disc golf and that they were willing to modify certain behaviors to decrease the negative impact on the environment. Implications for the management of recreational activities are discussed, emphasizing the potential sport subcultures have as the means to address the challenges facing recreational managers and practitioners.

Key Words: Sport subcultures, disc golf, recreation, environment.

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Introduction

In order to change human behavior, we have to motivate the process of change. This could be achieved through understanding the behavior as a manifestation of the variables related to the group's unique cultural characteristics. Cultural studies investigate how values, norms, and beliefs affect people's lives (Kim & Sherman, 2007). Behavioral research acquiring cultural knowledge is crucial if solutions for sustainable development are to be found (Milfont, Duckitt, & Cameron, 2006). These efforts require a people-oriented approach and in-depth knowledge about the values and beliefs of the specific culture and/or subculture. In fact, studying cultures has been identified as one of the vehicles for overcoming environmental problems not only at the local but at the global level as well (Vlek & Steg, 2007).

The introduction of subcultures by sociologists has triggered an avalanche of theoretical and empirical work. Subcultures contribute to the deconstruction of the concepts associated with the parent culture as well as describe the symbolic structure of groups organized around similar values, norms and beliefs. Those values, norms, and beliefs are not necessarily expressed in the dominant social culture. Subcultures are seen as new sources of identity signifying differences among individuals and groups.

Concerns about the practical efficacy of subcultures have inspired a substantial body of research (Donnelly, 1981; Donnelly & Young, 1988; Wilbert, 1991). The concept of subculture and its implications have been widely studied by sociologists in a variety of settings. For instance, subculture studies have influenced the work of sport ethnographers (Crosset & Beal, 1997) with the contribution of Donnelly (1981, 1988) being one of the most eminent in that area. In his work on sport subcultures and identity formation, Donnelly developed a model consisting of 4 components - pre-socialization, selection and recruitment, socialization, and acceptance/ostracism. The significance of his model is in that instead of confronting to the view of interactionist research where the process of socialization into subcultures is viewed as a process of identity formation, he suggests that we should examine this process as a far more deliberate act of identity construction. Subcultures provide the appropriate setting in which knowledge about members' characteristics could be enhanced (Wheaton, 2007). Subcultural studies have not only focused on the individual, but on organizations as well. For example, Colyer (2000) studied the organizational culture of different sport organizations in Australia and the formation of subcultures within the organizations, indicating the benefits of using the competing values model to probe sport organizational cultures.

Subcultures have also been employed as the means of exploring deviant behavior in sport (Sugden, 2007; Young, 1988, 1993), leveraging sport events (Green, 2001), analyzing the process of group affiliation (Young & Craig, 1997), windsurfing (Wheaton, 2003), climbing (Kiewa, 2002) and understanding consumers' characteristics (Wheaton, 2007) to name a few. Traditionally, the focus of subcultural analysis has been on the investigation of the values, norms, beliefs, and identity formation of individuals and groups, and not so much on the potential subcultures have to promote behavioral modifications.

Shared values and beliefs cultivate shared experiences, social interaction, and mutual affirmation and support among members. Thus, each subculture becomes a potential lever for shaping behaviors among those who identify with the particular subculture. In fact, social marketing techniques targeted at particular sport subcultures (Andreasen, 2006) and interventions designed to modify the subculture (Poole & Van de Ven, 2004) can be used to create desired norms and values.

Consumer behavior knowledge has been advanced by addressing the marketing relevance of subcultures, where cultural characteristics determine consumers' preferences; in turn, consumers are seen as cultural producers (Arnould & Thompson, 2005). Consumer culture research indicates that human activities based on consumption promote shared values and beliefs (Kozinets, 2002). Sport consumer subcultures have been studied with various objectives. For example, sport subcultures have been explored with the goal of understanding consumers and the way their lives are organized (Schouten & McAlexander, 1995), for the purpose of understanding sport tourism as the celebration of subculture (Green & Chalip, 1998), and with the aim of illustrating the marketing benefits which leveraging sport subcultures have on promoting sport events (Green, 2001).

Consumer ethnography explores the behaviors, attitudes, and culture of a particular group to better understand what customers want and how they make their decisions (Zukin & Maguire, 2004). It has applications in the study of subcultures where consumer categories are created and strategies based on those segments are prepared. Indeed, ethnographic techniques have been successfully employed to study the marketing relevance of subcultures in building brand community (McAlexander, Schouten & Koenig, 2002), to determine how consumer culture plays a role in forming collective identities (Zukin & Maguire, 2004), and to specifically study sport subcultures (Crosset & Beal, 1997; Schouten & McAlexander, 1995).

In addition to utilizing cultural knowledge for marketing purposes, such knowledge has been used to promote environmentally friendly consumer habits

(Schuhwerk & Lefkoff-Hagius, 1995). Although cultural characteristics have received some attention as a means of promoting pro-environmental behaviors, they remain underutilized as a resource for initiating behavior change. This study focused on the sport of disc golf as an illustration of the potential sport subcultures have to promote pro-environmental behavior among recreationists. The rationale for choosing disc golf was based on two reasons: 1) disc golf is a popular sport, and 2) some environmentalists have voiced concerns over the environmental impacts in recreational activities (Lawrence, 2010; LeClerc, Che, Swaddle & Cristol, 2005; Trendafilova, 2008). For example, in a study on sand dune communities, Liddle (1975) evaluated the soil and vegetation condition as markers of human trampling. Measures of soil compaction and change to vegetation cover were used by Sun and Walsh (1998) who presented an overview of the ecological impacts of recreational activities in Australia and they argued that some of the physical degradations include soil loss and compaction as well as vegetation damage. Similar results were found by Goeff and Alder (2001) in their study on mountain biking in Australia, showing that trail erosion, soil compaction and vegetation damage occur on the trails. Traffic over soil is the major contributor to soil compaction. For example, moist soil can reach 75% maximum compaction the first time it is stepped on, and 90% by the fourth time it is stepped on (Whiting, Wilson & Card, 2006). Recreational trampling leads to increase in soil compaction and a decrease in soil organic matter as well as a decrease in plant cover (Cole, 1995; Hylgaard & Liddle, 1981; Kuss, 1986; Sun & Liddle, 1993).

Investigating the values and beliefs of disc golfers in relation to pro-environmental behavior provided understanding of the means through which behavior modifications could be achieved. Such knowledge is important because values and beliefs extend beyond the sport activity as they encompass matters linked to lifestyle, personal identity, and group membership (Trendafilova & Chalip, 2007). In fact, shared beliefs and values cultivate a common identity which nurtures group effort (Brewer & Kramer, 1986; Kollock, 1998; Kramer & Brewer, 1984). Therefore, values can play an important role in behavioral changes in situations where collective action is necessary for achieving the desired behaviors.

Individuals who can relate to each other and have similar values are more likely to act cooperatively toward a common goal (Sally 1995; Van Vugt, 2001). Therefore, exploring the various ways in which values and beliefs are expressed within the subculture of disc golf could prove beneficial in the effort to eliminate some of the problem behaviors associated with the sport. The ethnographic study presented in this paper provided some useful knowledge about the subculture of disc golf.

METHOD

In order to understand the subculture of disc golf players, the researcher employed the ethnographic method of being a passive participant. Ethnography is the traditional research method utilized for the purpose of exploring and describing groups and subcultures in their natural setting (Agar, 1996; Hill, 1993; Spradley, 1975, 1980). Ethnographic studies can provide some valuable knowledge and important insights into the behavior and experience of a particular culture (Agafonoff, 2006; Arnould & Price, 2006). The research methods employed in the investigation of the subculture of disc golfers consisted of field observations, informal interviews and casual conversations.

Setting

Before the start of this project, the author was somewhat familiar with the sport of disc golf based on visits to disc golf courses and watching people play the game. Three parks in a city in the South were chosen as the sites of interest. Visits to the parks began with the initial purpose of becoming more familiar with the environment and the players. The usual place for observing was by the starting tee. Sometimes disc golfers casually approached the researcher and started a conversation, while other times the researcher approached them and initiated a conversation. The author was open about the purpose of her visits and the nature of her endeavors, and all players accepted her in a friendly manner. A concern about the validity and reliability of observational data is the effect of the observer on what is observed. The researcher acknowledges that some players may have had conversations among each other about the presence of the researcher and the fact that they were observed while playing disc golf. Players were willing to help in any way they could. As they became more accustomed to her presence, they started introducing her to their friends who were also disc golf players. They also started offering to let her borrow their disc golf equipment and to provide her free disc golf lessons. The researcher was able to develop friendly relations with two of the players (e.g., one still playing and the other one retired) while still maintaining some distance, and recruited them as key informants. Key informants are individuals who have knowledge about the inquiry setting (Patton, 2002). Both key informants were very helpful in introducing the researcher to other players, thus making the initial contact much easier. There were also helpful in providing additional insights as to what was happening and why. Although both informants were helpful, the researcher was careful not to rely on them too much since some of their perspectives could have been limited and biased.

The author also attended many of the mini-tournaments organized in the three parks on a weekly basis. Visiting the parks during these mini-tournaments allowed her to interact with competitive players in addition to the players who had already interacted with her during other visits to the park. The researcher either visited before the tournaments started or after the tournaments were over which were more suitable times to talk to players rather than during the actual tournaments when everyone was focused on the game. Her visits lasted about two hours. There were no organized or informal social gatherings in which disc golfers participated except for the social events that took place before and/or after mini-tournaments. During this fieldwork, a local disc golf club hosted a disc golf tournament, which was ranked among the top 50 tournaments in the United States; at that time the researcher was able to interact with six of the players who came to compete in this tournament.

The author interacted with disc golf players in all three parks with three purposes: (a) to engage in conversations; (b) to observe how the game is played; and (c) to look at the relationship between players and the environment. The main objective was to learn about the values, beliefs, and feelings the disc golfers had about their sport and the surrounding environment. Also of interest was whether there was any discrepancy between the actions of the players and their understanding of the impact their sport had on the environment; the researcher was curious to find out the disc golfers' willingness to make adjustments and modify behaviors in order to improve the condition of the park and the disc golf courses in particular.

Design and Procedure

In order to gather data and attain the above objectives, the author took field notes and conducted informal interviews and numerous conversations, which occurred during the course of the observations. This provided for an opportunity to create some personal involvement which is critical in doing ethnography (Agar, 1996). Players available in the parks at the time of the visits were subjects to informal and unstructured interviews as well as casual conversations. Those interviews and conversations varied in length depending on the time available to the players. Some conversations lasted only a few minutes while others were about 15 minutes. Some of the conversations were on a one-to-one basis, while others were conducted in groups. The size of the group varied from two to eight players. The informal interviews and conversations were not structured and had a free-flow format. For example, some of the questions were: (a) How would you describe the community of disc golfers?; (b) What are some of the reasons why you come to play in this park?; and (c) What do you find attractive about

disc golf? The researcher did not record the informal interviews and conversations on the spot; however, she wrote up notes as soon as she got back to the car in the parking lot of the parks. This provided for avoiding memory errors. The researcher assured all interviewees that their anonymity would be protected. The identities of the players were kept confidential and no indicators were recorded that could lead to personal identification. The researcher was the only one who had access to the data.

The researcher did not participate in the game. Most of the times, she set in the area of the practice basket and around the starting tee, since these were the locations with the largest number of players where social interactions took place and allowed for better viewing. On a few occasions she followed the players to learn about the specific obstacles on the course and how players approached them.

Analysis

The field notes contained the researcher's reflections about what she had observed on the courses as well as players' quotes. The data based on the informal and unstructured interviews and conversations were analyzed for themes and patterns and were coded using standard protocols for analysis of qualitative data (Sands, 2002; Spradley, 1980). For example, notes and quotes that had been written down were read numerous times and each reading provided emerging patterns and cultural themes. The intermix use of observations, casual conversations and informal interviews served as triangulation and provided for testing the consistency of the data (Patton, 2002). Themes were data driven; they were inductively discovered from the raw information. The analysis was conducted after all data were collected from the interviews and conversations rather than on a daily and/or weekly basis. These methods reduced researcher bias in the identification of new themes and from the premature confirmation of existing ones (Bryman & Burgess, 1994). Data analysis of field notes could have had some limitations because of the possibility that the observer may have affected the situation being observed. Observations are also limited in focusing only on behaviors and do not provide for information about participant's feelings and thoughts. Therefore, data analysis of the casual conversations and informal interviews provided for more in-depth understanding of the subculture of disc golfers. Data analysis based on field notes observations complimented by the analysis of interviews and conversations offered a more complete description of the world of disc golfers. This also provided for testing one source of information against another and increased the validity of data analysis (Fetterman, 2010). The use of methodological triangulation as the means to gather and analyze data presented

confidence in the quality of research data and created ways of understanding better the phenomenon under study.

RESULTS AND DISCUSSION

Based on the identified patterns, five themes gradually emerged. The first theme, *lack of knowledge and awareness about the surrounding environment and the damage the sport of disc golf causes*, was not directly linked to the values of the subculture of disc golfers. However, it deserves some attention because it indicated that increasing the knowledge and awareness about the relationship between the environment and the consequences of playing disc golf could contribute to achieving the desired behaviors. The second theme, *sense of ownership and attachment to the park* players play in, was linked to the high value golfers placed on the park and the sport. The third theme, *willingness to donate time as volunteers* to maintain disc golf courses and keep disc golf as a recreational sport, was linked to the sense of ownership and the value players placed on the socializing that took place at the course. The fourth theme, *family and fun-oriented atmosphere*, provided valuable information about the value disc golfers placed on the time spent together and their perception of the park as their home. The last theme, *male dominated sport*, offered some insights about a subculture dominated by males and about the effect of the behavior of the golfers on female players. The first theme split into two branches: tree damage, and soil erosion and compaction. The second and third theme had some common characteristics, which are discussed in the results section.

Before a detailed discussion of each of the identified themes, a brief description of the disc golf players based on field observations and interactions with the golfers is presented. Knowing who these individuals are assists in better understanding of the emerging themes.

The Subculture of Disc Golfers

An extract from the field notes provides a concise way to describe the subculture of disc golfers to the unfamiliar reader:

There were 15 players who all appeared Caucasian, except for one who appeared to be Hispanic, and 12 of them were not wearing shirts. Some wore denim or khaki shorts, others wore denim jeans. It seemed like they did not care much about their appearance since some of them had their shorts and/or jeans pulled down quite a lot. They were all males, and some had cans of beer in their hands, while a few others were smoking. They appeared to be in their

early- and mid-twenties. Some were talking loudly and even using foul language that I could hear from where I was sitting. There was not a single female player out there. Each player had a bag with disc golf equipment and more than half of them carried a cooler. Some wore tennis shoes, some wore hiking shoes, and some simply wore flip-flops.

As this extract indicates, the subculture of disc golfers is predominantly male. Players had very casual appearance with the majority of them not wearing shirts regardless of age and physique. A large number of the disc golfers smoked and drank beer while playing and/or socializing with other players. Players usually carried bags filled with discs and in some instances small coolers containing drinks. In rare cases, some golfers had a dog walking alongside them.

Having these initial observations and impressions about the disc golfers, one might expect that they would show some resistance to outsiders. Field notes proved exactly the opposite. Players were friendly regardless of whether the researcher was there to simply watch them play or indicated that she wanted to learn how to play the game. They were interested in getting to know her as much as she was interested in getting to know them.

Disc golfers presented themselves as laidback and outgoing. They seemed friendly to the outsider and easy to approach. Starting a casual conversation with them was not a problem regardless of whether the researcher indicated she had any knowledge about the game. In general, players were cooperative and eager to provide information.

The themes recognized in the data analysis and a discussion of each follows:

Lack of Knowledge and Awareness

The comments of most disc golf players indicated the players were not very aware of the damage they caused to the surrounding environment through playing their sport. Since they interact so closely and frequently with nature, one would logically expect them to be much more aware of the impact of their actions on the ecosystem. However, field observations and notes from interviews and conversations indicated that this was not the case. The following discussion focuses on three particular environmental issues – tree damage, soil erosion and soil compaction and the way players felt about these issues.

Tree damage. Due to the essence of disc golf and considering the environment in which it takes place a concern is the tree damage caused by discs when they hit trees during the course of a game (Lichter, 2005). This

leads to damage to the bark of the trees, which eventually destroys the tree. In fact, The Environmental Committee founded by the Professional Disc Golf Association suggests using stakes to protect the tree trunks and sensitive trees and shrubs. All three disc golf courses in this study were located in areas with many trees, not surprisingly since the presence of trees makes the game more interesting and challenging for the players. Due to the nature of disc golf, players' skill levels, and weather conditions (e.g., wind velocity and direction), discs frequently hit trees. This, however, did not seem to bother the players. In fact, when one player with a few years of disc golf experience was asked what his thoughts were about tree damage in the instances when discs hit trees, he replied:

Yeah, those trees have seen a lot of hits but they're pretty tough. They're oak trees and oak trees don't die that easily. They may look like they're in bad shape but they're not.

Similarly, another player stated:

I think most of those trees are cedar trees and they're supposed to be pretty sturdy. They won't break that easily.

Both interview excerpts show a lack of knowledge and awareness among players about the ecological damage to the trees as a result of playing disc golf. A second point that stands out is the lack of knowledge in identifying the tree species in particular. It is evident how some players thought trees were oak, while others thought they were cedar. This indicates the confusion players had about the tree species in each park.

During a visit to one of the parks, two players were observed playing very competitively and hitting the trees very often. After one strong but unsuccessful throw of the disc one of the players hit a tree and commented:

I don't care if I break the trees; that's how it goes.

The statement above is also an indicator of how players perceived that hitting trees was a part of the game, thus, placing more importance on the game rather than on the environmental consequences of their actions. In another instance, when a player was asked why he thought that hitting the trees with the discs does not affect the trees, he replied:

I don't think the disc can damage the tree unless you keep hitting the tree at exactly the same spot or unless the tree is hit from all directions. No, I don't think it's damaging to the trees.

Similarly, a long-time disc golfer was convinced that trees are pretty tough and are barely affected by the discs:

Yeah, sometimes a disc will hit a tree, but I don't think it's that bad. To be honest I have never seen a tree being knocked down by a disc [laughs].

This quote illustrates that disc golfers acknowledge the fact that trees are hit, but at the same time they are not convinced that this is damaging to the trees.

In an attempt to better understand why disc golfers did not find tree damage to be a big issue, the researcher asked another player what his thoughts were about the collision between the disc and a tree. He answered that his discs have lasted for years, and whatever material they are made of, they do not break. He also pulled out about ten different discs from his bag and started hitting the ground really hard to show how durable they were. His actions indicated that he was more concerned with his discs being damaged than about the tree damage caused by the discs. To him, damage was more associated with the discs rather than with the trees.

In one of the parks, a tree had a trunk that branches and a disc golf basket was located right at the center of it. When asked whether or not this was bad placement of the basket since the likelihood of hitting the tree is very high, a player replied:

Well, actually because of the location of that basket, in the middle of the tree, it makes it easier to get the disc in. All you need to do is to aim at the tree and if the disc hits the tree it bounces back and falls into the basket, so it's kind of an advantage that the tree is there.

Once again, this quote illustrates that players were more concerned about the game and the factors affecting the outcome of the game than about the environment. This also indicates that golfers focused on disc golf and ignored the preservation of the environment in which the sport takes place.

During field observations, the researcher also noticed that some players used the trees as practice targets when the designated practice baskets were too crowded, meaning that too many players were practicing at them. While interviewing a long-time disc golfer (a long-time disc golfer was considered a player who has played the sport for more than 10 years), the researcher asked if using trees as practice targets was something that was common in disc golf. The response was as follows:

Sometimes, when there are not enough baskets to practice, we'll tie a ribbon around a tree and use it as a practice basket.

The above quote illustrates the fact that players found this damaging practice to be considered "normal" and a part of the game.

For other players the fact that they had been playing for many years (many years was not quantified by the players and this is what the players referred to on a normal basis) and were visiting the park on a regular basis made them believe that they had a solid knowledge about the environment. According to a veteran player (a player was considered a veteran if he/she has played for more than 10 years), trees were not dying because of the hits they got from the discs but because of the ball moss growing on the trees. When the researcher explained her understanding was that ball-moss was not a parasite sucking nutrients out of the trees, the player insisted that his personal experience and observations showed otherwise. This showed a lack of knowledge about and resistance some players had towards accepting the impact disc golf could have on the surrounding environment. Professional assessments have indicated that trees are damaged during the game of disc golf (Lichter, 2005).

Soil erosion and compaction. There have been some disturbing concerns about the condition of the soil in places where disc golf is played (Estrella, 2005; Gascoyne, 2005; LeBlanc, 2006; McCaughan, 2004; Tren-dafilova, 2008). The research listed above has indicated that high foot traffic associated with disc golf leads to soil compaction, leading to the destruction of plants. The lack of vegetation cover favors conditions for soil erosion (Estrella, 2005; Gascoyne, 2005; LeBlanc, 2006; McCaughan, 2004). In fact, courses in California have been closed due to soil erosion. Results of this study indicated the opposite - disc golfers showed a lack of knowledge and awareness about the condition of the soil in the parks where they played, and more specifically about soil erosion and compaction. Although a natural process, soil erosion is increased due to the essence of the game because as part of the game most players take a few steps back and forth before throwing the disc. These extra steps cause vegetation damage leading to soil erosion and compaction problems. When a golfer was asked how he felt about the condition of the soil in the park and particularly about erosion, he responded:

Erosion is a natural process and this is a flood zone and has been a flood zone for many years... it is not the disc golf that causes erosion...it is the flooding that takes place here...and yeah, there maybe some problems with trampling, but it is not that bad.

His response indicates that he minimizes human impact on the soil. To him, whatever causes the soil erosion is due to Mother Nature and not humans. Similarly, another player seemed convinced that erosion had been there for years and that the introduction of disc golf to the park did not amplify the problems:

Since the park opened we had soil erosion problems...it is not because of the disc golf...we always had erosion problems.

During the course of the field observations some disc golfers were noted to drag their heavy bags filled with equipment on the ground instead of carrying them over their shoulder. Although seemingly harmless, this behavior causes additional impact on the vegetation and, therefore, more soil compaction problems; this, in turn, leads to a decrease in vegetation cover and, ultimately, to soil erosion. When a player was asked about this particular behavior, his response was:

Well, the bags are kind of heavy, but they are not that heavy...and it is not like a 300-pound person walking [laughs].

Interestingly, some players acknowledged the soil problems but attempted to blame other users for the erosion and compaction:

If it wasn't for all the other people using the park...like people jogging, walking their dogs, riding their bikes, you know...even riding their horses...yeah, there was a guy that sometimes rides his horse in the park...I don't think we would have had these soil erosion problems.

It was apparent that golfers would either deny that their sport caused soil problems or would try to look for some other explanations unrelated to the game of disc golf. Perhaps this could be explained by the fact that, for the most part, soil erosion and compaction are not immediately visible. The problem with this type of environmental degradation is the time lag between the time of the actual damage and the time the damage is detected; this makes the impact not immediately tangible. People, in general, tend to notice sudden changes in the surrounding environment much easier than changes that occur slowly and incrementally over time.

Sense of Ownership and Attachment

Although the three parks were managed and maintained by the City Recreation Department, the disc golf courses were not. In addition, government funds were not allocated for the management and maintenance

of the courses. This leads to disc golfers being responsible for the management of the courses, which, in turn, leads to the development of a sense of ownership and attachment to the park. As one player said:

This is our home. This is our park. We take care of it.

Similar feelings were expressed by another player:

We love our park and the course here and we really don't like other people walking on it because it's interfering with the game and it's dangerous.

The above response also indicates that golfers did not welcome other park users on the disc golf course. This could be because these parks have designated areas for other outdoor activities such as trails for walking dogs and riding bicycles, and having people walking on the disc golf course could, in fact, interfere with the game, and in some instances be rather dangerous.

When players were asked how the disc golf community manages to keep the courses and maintain them, a veteran golfer replied:

Players donate money and buy the baskets. The city does not buy them. We love this park and we don't want the city to do anything even if something breaks. We take care of the course and we organize volunteer days.

This excerpt indicates the strong feelings players had developed about the park and the disc golf course in particular. It also shows how the sense of ownership and attachment has led to golfers being willing to volunteer their time in order to keep the course well-maintained. They seemed to enjoy the responsibility of being in charge of the course.

Willingness to Volunteer

Closely related to the sense of ownership and attachment was the golfers' desire to donate time to keep the disc golf courses in good condition. During the course of this study, the researcher was able to visit one of the parks on a day scheduled for some volunteer work. Workers were provided with food and drinks as well as with some of the necessary equipment to clean the disc golf course. When asked why they volunteer, a golfer responded:

Well, because this is my park and I play here and I like it a lot, and you know, because no one else will do it, no one else really cares. It's good for

the community...players clean up the park.

When asked how many people usually respond to a volunteer day, a player answered:

Many people come to help. We have had about 100-120 volunteers sometimes.

It was interesting to examine the process of recruiting volunteers and how the players managed to organize such an event. The experience of another player indicated that the number of volunteers is not always large and that, at times, only a few golfers show up:

Usually when we decide to have a volunteer day we start telling people three weeks prior to that day and we don't call people or e-mail them. It's more like word-of-mouth. Last time we had a volunteer day there were only eight or nine people that showed up but we all stayed until we got the work done, and there were three people that weren't even disc golf players...but you know, they were friends of some of the players.

During a conversation with another player, it was pointed out that although the general impression might be that the city is taking care of the disc golf courses, it is actually the golfers who volunteer their time and spend hours beautifying the courses:

The volunteers are actually the ones doing the work. They move and install the baskets. They spread out the mulch in the park. They spend many hours working hard...Oh, they are fanatics!

This excerpt also indicates the high level of commitment players have towards keeping the courses well-maintained and their strong dedication to investing time and effort in that process.

Other players indicated their willingness to volunteer time as well. However, at the same time, they expressed unwillingness to help with the maintenance of the disc golf courses located in other parks:

I like volunteering but I will not go and volunteer at [name deleted] because this is my home. This is my park. I'm not going to help them clean up their [expletive].

Although the City Parks and Recreation Department was not in charge of the disc golf courses around the city and did not allocate money for maintenance, a friendly relationship existed between the golfers' community and the Parks and Recreation Department as indicated by the following statement:

It's actually us, the Disc Golf Club, that manages the disc golf course in the park, but the city helps us organize tournaments. Look, they made these signs for the upcoming event next week, and we're having a volunteer day tomorrow to get the course ready for the tournament.

Based on personal observations and casual conversations with the players it seemed like the relationship between the sense of ownership and attachment and the willingness to volunteer was reciprocal. In other words, the more the golfers developed a sense of ownership and attachment to the park and course where they played, the more they were willing to devote time and resources to keeping the courses well-maintained. The more time they spent taking care of the courses, the stronger their sense of ownership and attachment became.

Family and Fun-oriented Atmosphere

To the disc golf players, family atmosphere was not necessarily associated with the traditional image of family with children; rather it was associated with the closeness amongst players and the friendships they had developed through the game of disc golf. Players enjoyed the time spent together not only playing disc golf, but also socializing with other players. When asked what they like about disc golf, some of the responses were:

It's fun, it's free and it's great to be outside. I do it casually. It's just a lot of fun. Anyone can do it. It beats the hell out of sitting at home.

The above statements indicate the enthusiasm players feel about disc golf because it takes place outside, it is free and fun, and does not require any special skills.

For other players going to the park and playing disc golf was a family recreational activity in the traditional sense:

I come here with my kids...they absolutely love it...Homeless people aren't hanging out in the area as much as they used to...it's because the area is thick with disc golfers now and it's like...you know...we are a family.

A close examination of this quote also illustrates the credit golfers assign to themselves for running away the homeless people from the area, thus, making it more family attractive.

There was general agreement among players that disc golf offered family type of environment where one could not only go and play the game but could also socialize with others while having a drink or two, forgetting about daily problems. For one player, disc golf had

even more special meaning:

Disc golfers are like one big family. I actually met my wife of 8 years playing on a disc golf course. Now together we are playing disc golf.

Quotes above suggest that golfers enjoy the social experience of the sport and the opportunity to get together either to play or simply to spend time with friends. To them, disc golf was not purely a recreational activity; it represented a close family where one could feel comfortable and relax.

An interesting observation related to the family-oriented atmosphere experienced by disc golf players was the fact that the majority of players were male. Although society associates the traditional family atmosphere with members of both genders, sport historically has been associated with male dominance and viewed as an arena for developing masculinity. This association, however, has been linked more with organized and competitive sports and not as much with recreational sports. Gender and its relation to disc golf is described next.

Male Dominated Sport

Considering the relative simplicity of disc golf and the inexpensive equipment required to play, one would expect that the sport would be popular with people from both genders. After months of fieldwork and observations, it was surprising to see only a few females playing the sport. When a male player was asked whether he had seen females play, his response was:

Well, women play too, but not as many as guys. Actually a couple of weeks ago there was a big only women tournament, but I can't remember the city. They had a lot of really good players there, all women.

For the most part male players agreed that disc golf was not as popular for females as it was for males. When challenged to speculate why, a long-time player suggested:

Hmmm, there are a few sometimes, but I guess they play somewhere else or close to where they live.

Another golfer offered a different explanation:

Girls are not that physically strong and skillful as guys are, but we have seen a few girls play.

Similarly, a female player remarked:

This is my second time playing with my husband, but I am not doing very well [laughs]...I can't throw as far as the guys...so, I guess I should bring my camera next time and just walk around and take pictures.

While the above excerpts suggest that both male players and some female players believe there is a physical difference and that that is why females do not play disc golf as much as males do, interestingly, a male player also suggested a psychological reason:

Girls are intimidated by the guys and that is why there are not too many girls playing the sport.

In interacting with some of the female players, it was surprising that some felt the same way as male players did about the small number of females participating in disc golf. For example, one woman stated:

Girls don't play much the sport, because they are not that strong and can't throw that far.

Another female golfer offered a different answer about why disc golf was not that popular among females:

Girls are more impatient than guys and they tend to quit quickly if they are not getting better and improving. If you see a few girls around the disc golf course, it is because they are carrying their boyfriends' coolers [laughs]...and not because they are playing.

Although the population of male golfers considerably outnumbered the population of female golfers and there were some feelings of discomfort on the side of the females participating in a male dominated sport, it seemed like the relationship between the two genders was hospitable and amicable. As one male golfer stated:

It's a male sport and girls don't feel comfortable...but I have seen guys trying to teach girls how to play and usually they [guys] are very encouraging and nice.

A veteran male golfer also expressed an interesting opinion about the low number of females playing the sport:

Girls are discouraged to play, because the guys who teach them how to play don't know how to explain the game to them...they [guys] maybe good players, but don't know how to coach disc golf.

These quotes are supported by the statements from in-

terviewees as well as by data from the Professional Disc Golf Association (PDGA). According to PDGA, females represent only about 8% of the disc golf population (Professional Disc Golf Association, n.d.). The gender issue in disc golf raises interesting questions about this emerging sport, its construction, and the ways in which it might reinforce gender stereotypes. While on the one hand, it seems that the male population of golfers is fairly convivially oriented towards the female population, on the other it appears that females feel somewhat uncomfortable and are hesitant to join this space as participants.

CONCLUSIONS

The topic of sport in relation to the construction of gender has been widely discussed in the literature, but the focus has mainly been on organized and professional sports (Curry, 1991; Messner, Duncan & Jensen, 1993). Newly emerging sports such as disc golf, in-line skating, and mountain biking have received little attention (Anderson, 1999). Exploring further the nature of the relationship between genders could deepen our understanding of the social ties and friendships developed through participation in disc golf and the differing values males and females may place on them. Analyzing the gender issues in disc golf could contribute to the understanding of some of the underlying principles that influence gender construction and reinforce notions of gender differences and stereotypes. New and emerging sports such as disc golf could be sites for a new construction of gender identity and relations.

Male dominance in the sport of disc golf may be a temporary phenomenon. A comparison with the history of snowboarding, another outdoor recreational activity which emerged in the late 1960's and early 1970's at the same time disc golf was born reveals a similar pattern in gender participation. Snowboarding started as a male dominated sport and it was not until a few years ago when the female phenomenon in snowboarding was recognized (Thorpe, 2005). It is possible that disc golf is still in transition from being an apparently male dominated sport to being equally enjoyed by both genders. Perhaps a historical trend analysis of different outdoor recreational sports would be beneficial for better understanding some of these participation patterns.

Based on the findings about gender issues in disc golf and the lack of awareness about the consequences some behaviors have on the environment, one could make an interesting case for further investigation. In fact, these two issues show some common trends. For example, to an outside observer the behaviors of the disc golfers do not seem to be inviting, especially to the opposite gender. On the other hand, this study indicated that male players were excited about having females play along, and were willing to offer help in teaching the rules of the

sport. Female players indicated that although they felt intimidated by the predominantly male presence in the sport, they felt very welcome when trying to learn how to play. This could indicate that male golfers might not be aware of the consequences of their behaviors not only on the environment, but also on the people watching them play. In both instances the outcome is a rather negative effect contrary perhaps to the desires and perceptions of the disc golf players. A future study focused on gender and environmental issues could shed some light on whether there are any differences between males and females. Scholars in the field of environmental sociology, social psychology, and political science have found a gender gap for environmental concern, values, and perceptions of environmental risks (Bord & O'Connor, 1997; Davidson & Freudenburg, 1996; Hampel, Boldero & Holdsworth, 1996; Strandbu & Skogen, 2000; Szagun & Pavlov, 1995).

The results of this study suggest that the sport of disc golf attracts participants because it not only provides the opportunity for the players to play a sport they enjoy, but an environment for social interactions. Disc golfers seem to seek more than participation in a recreational activity; they seek the social atmosphere associated with disc golf and the friendship they develop with other players. Being a member of the disc golf subculture provides a sense of community, which is highly valued among these players. These findings are important because they provide insight into the meaning disc golf has for players. Results are consistent with other work on sport subcultures indicating that participating in these subcultures provides for more than simply the opportunity to play (Green & Chalip, 1998). When designing an intervention program for changing the problem behaviors associated with disc golf, emphasis should be placed on the value disc golf has in providing an environment for social interactions as well as community development and stewardship of the land.

The community of golfers appeared to value the time spent together having fun as a group and the friendships they developed. This, in turn, led to the feeling of belonging to one big family as it could be seen from the following quote:

We are like a family...have you seen the show Cheers...yeah...we are like the people in that show. I could have gone to the gym, but I decided to come here and relax and spend time with these people...they are my family.

Similarly, another player shared:

This is a social get together for us...we have been doing it for 14 years and we absolutely love it... this is our family...it is a family atmosphere...we

drink and we talk.

Disc golfers valued the socializing that takes place in the park and the family oriented atmosphere. This family-oriented atmosphere could have contributed to the interpretation of the park as their home. This, in turn, led to the golfers' willingness to protect their home (e.g., park) and to donate time and resources in order to continue to provide for the conditions necessary to maintain this home.

The population of disc golfers was very diverse and laidback, and did not express formal adherence to any strict norms of conduct. There did not appear to be any form of policing of undesirable or unacceptable behaviors. It seemed that "anything goes" was the accepted rule. Individuals were never encouraged or discouraged to act in a certain way. However, this also applied to environmentally damaging behaviors.

Interestingly, the majority of golfers were not aware of the ecological impact disc golf caused on the surrounding environment nor were they aware of the specific behaviors associated with this impact. However, the strong attachment they had to their park and the disc golf course in particular has the potential to be used in the design of behavioral interventions. The work of Ryan (2005) on public attachment to urban natural areas supports this view. Ryan suggests that people with a strong attachment to natural areas have the potential to promote stewardship for natural area preservation. This notion of place attachment could be incorporated into the design of a campaign aimed at modifying some of the problem behaviors associated with the negative impact disc golf has on the environment.

The issue of strong attachment to the park is related to the high value players placed on disc golf and the park; the high value placed on the sport contributed to this attachment. While attachment could be used as a lever to modify behaviors, its power is rather weak when compared to the power of value. For example, even though strong attachment to the park could motivate players to donate time and resources to maintain the disc golf course, the high value placed on the sport and on the park as their home may have a greater potential for influencing behaviors.

Disc golfers expressed the value they placed on being outdoors and on the natural environment. One could expect that they would have a better understanding of the consequences of their actions on the surrounding environment. As it turned out a strong false belief was prevalent among them that their behaviors such as dragging bags on the ground and hitting trees with discs could not possibly lead to ecological degradation. This belief, therefore, plays a key role in resolving a contradiction that would otherwise arise between the value they placed on the park and the value they placed on the game

of disc golf. For example, tree targeting during warm-up which involves repetitively hitting the trees, is not an indication of a lack of environmental values if the player does not perceive this behavior as harmful to the tree. It appears then that disc golfers are not facing the dilemma of choosing one value over the other if playing the game is not in their eyes at the expense of the park.

One can see the critical part played by the lack of awareness amongst most golfers about the consequences their sport had on the surrounding environment. A variety of different approaches such as prompts, modeling, and rewards could prove to be effective in an effort to increase environmental awareness (Lehman & Geller, 2004). The work of Stern (2005) on environmentally significant behavior suggests that increasing individuals' awareness about the consequences of their actions on something they highly value could, motivate people to make behavioral changes.

Disc golfers expressed a strong sense of ownership of the park they played in, which, was tied to their willingness to invest time and resources to keep the sport for the future. This has implications for managers and park developers, pointing at the importance of knowing the values of park users and their perception about the surrounding environment. This could contribute to a better understanding of the human-nature relationship (Sasidharan, 2002). Knowledge about this relationship and the values of the recreationists could make program planning for management of natural resources more effective and efficient. It could also contribute to the development of intervention measures for achieving the desired behaviors by emphasizing the sense of ownership disc golfers have about the park and by emphasizing the importance of their efforts in preserving the sport of disc golf.

The significance and utility of the disc golf subculture (and subcultures in general) is expressed in their power to explain certain behaviors, which could contribute to establishing and modifying behaviors necessary for sustainable sport. The utility of a subculture depends on the depth of our knowledge about the way the subculture evolves and changes over time. Although the study of subcultures has a long history, the work presented in this paper calls for a revised approach to the study of sport subcultures. More particularly, in the past, sport subcultures have been studied mostly with the main purpose of leveraging sport events (Green, 2001), learning more in-depth about spectators and consumers' characteristics (Wheaton, 2007), or with the purpose of understanding deviant behavior in the sport context (Sugden, 2007). While such endeavors have substantially contributed to the theory of subcultures, and, in particular, sport subcultures, studies related to the potential sport subcultures have for addressing environmental problems in the sport context have been underutilized.

The challenge for future researcher and practitioners would be to find ways to foster maintenance of desired environmentally friendly behaviors over a long time period, thus producing lasting behavior change based on intrinsic motivation and shared subcultural values. Interventions could be designed to modify the subculture and create these desired norms and values. Shared norms and values cultivate a common identity, which nurtures group effort (Brewer & Kramer, 1986; Kollock, 1998; Kramer & Brewer, 1984). The challenge, therefore, is to formulate interventions that can socialize participants (and, where appropriate, spectators) into the desired beliefs and values, and to use those beliefs and values to prompt environmentally friendly behavioral norms. In order to formulate such interventions, sport subcultures and variations amongst them must be better understood. Evaluation of interventions based on that knowledge can test resulting theories about subcultures in sport and the relations between subcultures and environmental consciousness. What is then learned in the sport context may even have value in other subculture sport settings.

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