

FACTORS INFLUENCING HUNTER RECRUITMENT, PARTICIPATION, AND  
RETENTION OF MALE AND FEMALE HUNTERS IN ILLINOIS

BY

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THESIS

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## ABSTRACT

Continued hunting participation is critical to maintain funding for natural resource conservation agencies; however, the hunting population has been decreasing on a national level. During recent decades, the number of female hunters has increased and to a degree mitigated the reduction in hunter population. Increased in female participation has prompted numerous studies, yet these studies primarily focused on females who hunt rather than comparing males and females within a hunting population. Moreover, gender can influence leisure preference and participation, so it is important for researchers to consider the influence of gender on hunter recruitment and participation. Previous studies of hunters often utilize close-ended questionnaires, yet this method may not provide researchers with a full understanding of hunters' perceptions of reality. I used semi-structured interview techniques to identify factors associated with hunter recruitment, participation, and retention to obtain more detailed accounts of hunter experiences in Illinois. Males and females interviewed differed in their hunting experiences, so studies that do not stratify by gender can fail to understand female recruitment and retention. Females were more likely to report mentoring and encouraging other females to hunt than males. Female-only programs provide opportunities to females to learn shooting and hunting skills, but developing programs that emphasize hunting as a family activity may help to recruit and retain females who are motivated to spend time with their family. Differences existed between comments discussed by interviewees and results of previous studies, suggesting utilizing only quantitative research methods may provide incomplete accounts of the hunting population. Using qualitative research methods will assist researchers to better understand gender differences in recruitment, participation, and retention, which will in turn guide quantitative assessments and assist managers in developing hunter recruitment and retention programs.

Keywords: gender, hunter, participation, recruitment, retention, semi-structured interviews

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## TABLE OF CONTENTS

LIST OF FIGURES .....	vi
LIST OF TABLES .....	vii
I PROJECT OVERVIEW .....	1
Introduction.....	1
Objective .....	2
Methods.....	3
References .....	4
II LITERATURE REVIEW .....	6
Introduction.....	6
Constraints .....	8
Differences in Constraints between Genders .....	12
Motivations .....	15
Self-efficacy .....	19
Social Support.....	21
Constraint Negotiation .....	22
References.....	24
III MALE AND FEMALE HUNTER DEMOGRAPHICS IN ILLINOIS.....	34
Introduction.....	34
Methods.....	35
Results.....	36
Discussion.....	38
References.....	40
IV FACTORS INFLUENCING HUNTER RECRUITMENT AND RETENTION OF MALE AND FEMALE HUNTERS IN ILLINOIS.....	42
Introduction.....	42
Methods.....	44
Results.....	51
Introduction to Hunting.....	51
Development as a Hunter .....	52
Hunter Identity .....	54
Influence of Shooting Sports .....	56
Learning to Hunt .....	56
Hunter Relationships.....	57
Mentoring New Hunters .....	58
Discussion.....	59

	Hunting Experiences .....	59
	Influence of Others .....	63
	Conclusion .....	66
	References.....	68
V	PERCEIVED CONSTRAINTS, MOTIVATIONS, SELF-EFFICACY, SOCIAL SUPPORT, AND CONSTRAINT NEGOTIATION ABILITIES OF MALE AND FEMALE HUNTERS IN ILLINOIS .....	74
	Introduction.....	74
	Gender and Leisure .....	75
	Constraints .....	76
	Motivations .....	78
	Self-efficacy.....	79
	Social Support.....	80
	Constraint Negotiation .....	80
	Objective.....	81
	Methods.....	82
	Results.....	85
	Constraints to Hunting .....	85
	Motivations to Hunt .....	87
	Self-efficacy and Hunting.....	89
	Support for Hunting .....	90
	Negotiation of Hunting Constraints .....	93
	Discussion.....	94
	Constraints to Hunting .....	94
	Motivations to Hunt .....	96
	Self-efficacy and Hunting.....	96
	Support for Hunting .....	97
	Negotiation of Hunting Constraints .....	99
	Conclusion .....	100
	References.....	101
VI	SYNTHESIS .....	109
	References.....	115
APPENDIX		
A	TELEPHONE SURVEY QUESTIONNAIRE .....	118
B	INTERVIEW QUESTIONS .....	120

## LIST OF FIGURES

2.1	Crawford and Godbey's (1987) intrapersonal constraints model .....	9
2.2	Crawford and Godbey's (1987) interpersonal constraints model .....	10
2.3	Crawford and Godbey's (1987) structural constraints model .....	10
2.4	Crawford et al.'s (1991) hierarchical constraints model .....	11
2.5	Mannell and Kleiber's (1997) general model of motivation.....	16
2.6	Bandura's (1977) sources of efficacy and modes of source operation .....	20
4.1	Illinois Department of Natural Resources administrative regions .....	46

LIST OF TABLES

3.1 Responses of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey .....37

3.2 Responses of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey .....37

3.3 Variables influencing perceived skill level of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey .....38

4.1 Interviewee responses to telephone survey questions .....47

4.2 General themes and subthemes emerged from interview responses .....49

5.1 General themes and subthemes emerged from interview responses .....84

## PROJECT OVERVIEW

### Introduction

Continuation of hunter participation is critical as it provides substantial funding for natural resource conservation agencies (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007). Hunter participation is defined as one purchasing a hunting license and going afield at least once during the hunting season. Despite the importance of hunting participation for continuous funding, the number of hunters decreased 11% nationally between 1991 and 2006 (USDI, 2012a). Hunting participation increased 9% from 2006 to 2011 (USDI, 2012b); however, this increase was only observed during one sampling period and may not be indicative of the long-term trend.

In recent decades, changing social norms related to gender have led to increased female participation in male-dominated activities (Henderson, Bialeschki, Shaw, & Freysinger, 1996; Taylor, 1989). Hunting has traditionally been considered a masculine activity and the number of women in the sport has increased in recent decades (Bissell, Duda, & Young, 1998; Heberlein, Serup, & Ericsson, 2008; Ryan & Shaw, 2011). Between 1991 and 2001, female participation increased from 8% of the hunting population to 11% (USDI, 1992; 2012a), and has helped to mitigate the loss of male hunters (Bissell et al., 1998; Heberlein et al., 2008; McFarlane, Watson, & Boxall, 2003).

Numerous studies have documented the influence of gender on leisure preference and participation (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994). Although females comprise a

minority of the hunting population, changes in the hunter population warrant researchers to reevaluate hunter characteristics to better understand female hunters. Most studies of female hunters occur by singularly evaluating females in a population and comparing results to previous literature (e.g., Adams & Steen, 1997; Heberlein et al., 2008), rather than using male hunters from the same population as a control. Additionally, the role of females in the recruiting of new hunters is not fully known. Understanding gender differences in recruitment, participation, and retention is imperative to identify those who are at a greater risk of desertion to allow programs to be refined to better promote the retention of existing and recruitment of new members.

## **Objective**

The objective of my study was to utilize qualitative research methods to identify factors associated with hunter recruitment, participation, and retention.

In Chapter II, I provide a literature review of factors that influence hunting participation, including: (a) constraints, (b) motivations, (c) self-efficacy, (d) social support, and (e) constraint negotiation.

In Chapter III, my objectives were to determine: (a) influence of gender on participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing to hunt, perceived skill level, total years hunting, years hunting in Illinois, and age; and (b) if perceived skill level is dependent on gender, participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing to hunt, total years hunting, years hunting in Illinois, and age.

In Chapter IV, I sought to determine if differences exist between genders for: (a) age of initiation and interest in hunting, (b) types of species hunted during initiation and currently, (c) perception of identity, (d) individuals who mentored them into hunting, (e) family members who hunt, and (f) individuals they mentored into hunting in Illinois.

In Chapter V, my objective was to qualitatively evaluate gender differences between perceived (a) constraints, (b) motivations, (c) self-efficacy, (d) social support, and (e) constraint negotiation.

Lastly, in Chapter VI, I provide an overview of the results and implications of the complete project.

## **Methods**

I utilized a two-step process in my study. First, I conducted a telephone survey to obtain information on Illinois hunter participation and demographics. Using purposive sampling, I then selected 12 male and 15 female telephone survey respondents for an in-person semi-structured interview.

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## II

### LITERATURE REVIEW

#### **Introduction**

Hunters provide substantial funding for natural resource conservation agencies through purchases of hunting licenses, hunting equipment, and memberships in conservation organizations (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007). Additionally, hunters support local economies through the purchase of lodging, food, and equipment at hunting locations (USDI, 2012a). Therefore, continued hunter participation is critical to maintain conservation funding and support local economies. During 2011, hunters spent \$33.7 billion USD on hunting related expenses, which equates to approximately \$2,460 USD spent per hunter (USDI, 2012a). Hunter participation is defined as one purchasing a hunting license and going afield at least once during the hunting season.

Hunter participation is critical to maintain funding for natural resource conservation, yet the hunting population has been decreasing (Vrtiska, Gammonley, Naylor, & Raedeke, 2013). Between 1991 and 2006, hunting participation decreased 11% nationally (USDI, 2012a). Hunting participation increased 9% from 2006 to 2011 (USDI, 2012b); however, this increase was only observed during one sampling period and may not be indicative of the long-term trend in hunting participation.

Hunting participation is initiated through recruitment into the sport. Hunter recruitment can be physical (e.g., buying licenses) and socio-psychological (e.g., identifying one's self as a hunter; Enck, Decker, & Brown, 2000). Socialization into the hunting culture is primarily taught by fathers or other male family members (Bissell, Duda, & Young, 1998; Boglioli, 2009; Duda,

Bissell, & Young, 1996; Purdy, Decker, & Brown, 1989; Shaw & Gilbert, 1974), and most are initiated into hunting as youths (Copp, 1975; Langenau & Mellon, 1980; O’Leary, Behrens-Tepper, McGuire, & Dottavio, 1987). Duda et al. (1996) stated that “It takes a hunter to make a hunter” (p. 329); therefore, exposure to hunting and presence of other family members are important to hunter initiation. Moreover, hunters introduced at younger ages are more likely to continue participation and have greater levels of commitment compared to those who began hunting later in life (McFarlane, Watson, & Boxall, 2003; O’Leary et al., 1987; Purdy et al., 1989).

In recent decades, feminist movements have led to changes in social norms of gender roles, and females are increasing participation in customarily male-dominated activities (Henderson, Bialeschki, Shaw, & Freysinger, 1996; Taylor, 1989). Hunting has traditionally been considered a masculine activity and the prevalence of women in the sport has been increasing in recent decades (Bissell et al., 1998; Heberlein, Serup, & Ericsson, 2008; Ryan & Shaw, 2011). Between 1991 and 2011 female participation increased from 1.1 to 1.5 million (USDI, 1992; 2012a). Moreover, females have become a greater proportion of the hunting population, increasing from 8% to 11% during the same 20 year period noted above (USDI, 1992; 2012a), and have helped to mitigate the loss of male hunters (Bissell et al., 1998; Heberlein et al., 2008; McFarlane et al., 2003).

Initiation into hunting can greatly differ between genders. In contrast to males, most females begin hunting as adults and are recruited by their spouse (Adams & Steen, 1997; Heberlein et al., 2008; Jackson, McCarty, & Rusch, 1989). Research suggests females develop leisure preferences that reflect preferences of other family members (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008; Henderson, 1996; Henderson & Allen, 1991); thus,

participation in hunting may not be an indication of a female's desire to hunt. Moreover, females are more responsive to input from social groups (Culp, 1998; Henderson, 1994; Jackson & Henderson, 1995; Thomas & Peterson, 1993), and social groups may be more influential when females participate in masculine recreation activities (Covelli, 2011; Hurtes, 2002). Due to the influence of social groups, females who participate in hunting may help to recruit and retain other females into hunting (Boglioli, 2009; McFarlane et al., 2003; Shaw & Gilbert, 1974).

Participation in leisure activities, such as hunting, is determined by numerous psychological and physical factors. Some factors (e.g., constraints, negative past experiences) reduce participation, whereas others (e.g., motivations, constraint negotiation) promote participation. Interactions occur between these factors, although a consensus as to how these factors interact does not exist (Alexandris, Tsorbatzondis, & Grouios, 2002; Carroll & Alexandris, 1997; Hubbard & Mannell, 2001; Schroeder, Fulton, Lawrence, & Cordts, 2012). Developing a better understanding of factors related to hunter recruitment, participation, and retention will help managers recruit future hunters and retain those who already participate.

## **Constraints**

Beginning in the 1980s several studies were conducted that evaluated relationships between constraints and participation in leisure activities (Jackson, 1988). Jackson (1988) noted that "Constraints inhibit people's ability to participate in leisure activities, to spend more time doing so, to take advantage of leisure services, or to achieve a desired level of satisfaction" (p. 203). Early evaluations of constraints referred to them as "barriers" (e.g., Crawford & Godbey, 1987), assuming those who experienced constraints did not participate in recreation (Jackson, Crawford, & Godbey, 1993). In the 1990s, the term "barriers" was replaced with "constraints,"

as researchers determined that the influence of constraints differs among individuals and may only reduce participation (Jackson et al., 1993; Jackson, 2000; Wright, Drogin Rodgers, & Backman, 2001).

Early models delineated individual constraints into two categories: (a) internal (i.e., personal, psychological, and perceived physical abilities) and (b) external (i.e., constraints that are not related to physical or mental state of the individual, such as lack of time, finances, or facilities; Crawford & Godbey, 1987; Jackson, 1988). Crawford and Godbey (1987) expanded upon these early studies by developing three discrete constraint categories: (a) intrapersonal, (b) interpersonal, and (c) structural. Intrapersonal constraints in Crawford and Godbey's (1987) model represented constraints previously classified as internal. The intrapersonal constraints model is illustrated as a linear relationship, wherein constraints influence leisure preferences, which in turn influence leisure participation (Crawford & Godbey, 1987; Figure 2.1).

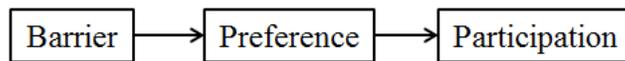


Figure 2.1. Crawford and Godbey's (1987) intrapersonal constraints model.

Crawford and Godbey's (1987) models describing interpersonal and structural constraints were constructed by subdividing the external category. Interpersonal constraints are developed through interactions with other people (Crawford & Godbey, 1987). For example, participating in a child's preferred leisure activity may be an interpersonal constraint if the mother reduces participation in her desired leisure activity. The interpersonal constraints model suggested constraints, preference, and participation influence one another as a triangular relation (Crawford & Godbey, 1987; Figure 2.2).

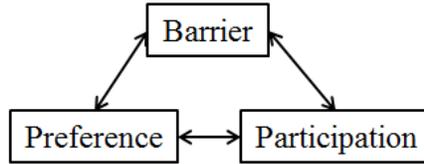


Figure 2.2. Crawford and Godbey's (1987) interpersonal constraints model.

Crawford and Godbey's (1987) third model described structural constraints (e.g., finances, time, perceived opportunity) that may influence participation in leisure activities. The structural constraints model is represented linearly similar to the intrapersonal constraints model; however, in the structural model, leisure preferences exist prior to the development of constraints that then influence participation (Crawford & Godbey, 1987; Figure 2.3).

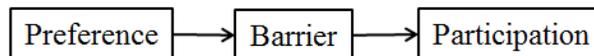


Figure 2.3. Crawford and Godbey's (1987) structural constraints model.

Crawford, Jackson, and Godbey (1991) expanded on Crawford and Godbey's (1987) model through the development of a single hierarchical model that better described the influence of constraints on participation. Similar to the Crawford and Godbey (1987) model, Crawford et al. (1991) suggested intrapersonal constraints affect the choice of leisure preferences. Once leisure preferences are developed, an individual may encounter interpersonal constraints. Individuals may not always encounter interpersonal constraints, but are more likely to encounter these constraints if the leisure activity requires multiple people (e.g., rock climbing, tennis; Crawford et al., 1991). After overcoming intrapersonal and interpersonal constraints, an

individual must then overcome structural constraints (Crawford et al., 1991). The hierarchical progression through constraints in the Crawford et al. (1991) model suggested that if one does not overcome intrapersonal constraints for particular leisure activities, he or she will not encounter interpersonal or structural constraints (Figure 2.4).

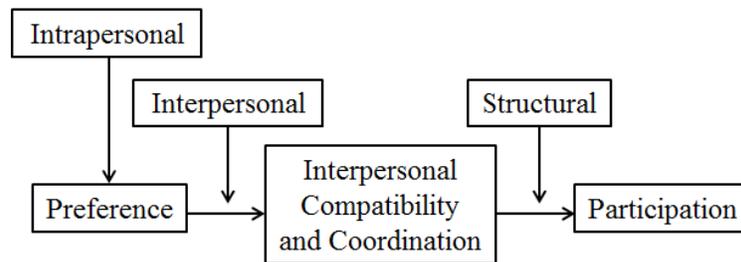


Figure 2.4. Crawford et al.'s (1991) hierarchical constraints model.

Though constraints have been traditionally classified as intrapersonal, interpersonal, and structural, alternative classification schemes exist. Studies of hunters have begun categorizing constraints as personal or situational (e.g., Covelli, 2011; Miller & Vaske, 2003; Schroeder et al., 2012). Personal constraints are those more likely to be influenced by the individual and can be intrapersonal, interpersonal, or structural (e.g., lack of interest, hunting partner, finances), whereas situational constraints are more likely to be controlled or partially controlled by agencies (e.g., not enough game, season too short, sites too crowded). The personal and situational classification scheme appears to hold the greatest value for hunting studies, as it can be used to evaluate the relationship between the individual and natural resource managers.

## **Differences in Constraints between Genders**

Concurrent with the development of constraints theory, researchers began to identify the need to categorize individuals within the sample to better understand leisure participation within a population (Jackson, 1990). Early leisure studies have sought to subdivide populations by demographic variables, such as age, sex, family structure, and income level (Jackson & Henderson, 1995; Sky, 1994). Evaluations of sex as a variable primarily focused on structural constraints that typically affect both sexes (e.g., lack of time or money), but ignored intrapersonal and interpersonal differences between sexes (Shaw, 1994). Moreover, research showed that sex itself may not be a factor in leisure participation (Jackson & Henderson, 1995).

In the mid-1990s, researchers emphasized the need to study effects of gender instead of sex within the theoretical construct of leisure studies (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994). Gender is the socially developed stereotypes of how each sex should behave (e.g., masculine v. feminine identities), which differs from biological sex of male or female (Culp, 1998; Jackson & Henderson, 1995). The inclusion of gender studies in leisure research encouraged researchers to determine the reasoning behind differences in leisure participation and preferences between sexes (Shaw, 1994; Sky, 1994).

Feminist theory assisted researchers in identifying reasons for differences in leisure participation and preferences between the sexes (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994) and is focused on social change and justice for women (Henderson, Hodges, & Kivel, 2002). Literature on feminist theory emerged in response to resurgence of the women's movement in the 1960s (Sky, 1994; Taylor, 1989). Feminist theory highlights the oppression, sexism, and patriarchy women face in male-dominated cultures (Sky, 1994); in other words, feminist theory evaluates societal constraints on women. Influence of feminist and gender theory in leisure

research has guided new perspectives in leisure constraints theory (Parry, 2005; Parry, Glover, & Shinew, 2005; Shaw, 1994; Sky, 1994) and has allowed researchers to better understand leisure participation by females and males (Henderson, 1996; Henderson & Hickerson, 2007).

Feminist constraint research has led to the identification of gender constraints that influence leisure participation and preference. Gender constraints are encountered as a result of a person's perception of gender roles (Culp, 1998), and can be intrapersonal (e.g., a male not participating in an activity he perceives as feminine), interpersonal (e.g., female peer pressure to participate in feminine activities rather than masculine ones), or structural (e.g., single-sex organizations).

Shaw (1994) identified three conceptual foundations within feminist constraint research. The first foundation described how oppression in the daily life of females constrains access and enjoyment of leisure activities. Shaw's (1994) second foundation focused on the idea that leisure activities themselves can be constraining, and acceptance of the social definition of activity as masculine or feminine can act as a deterrent to participation (Henderson, 1996; Jun & Kyle, 2012; Shaw, 1994). Lastly, leisure choices can be rejection or resistance of gender roles assigned by society when one participates in an activity outside of typical gender roles (Henderson & Hickerson, 2007; Parry, 2005; Parry et al., 2005; Shaw, 2001).

Constraints can differ within and between gender groups (Jackson & Henderson, 1995); however, females generally encounter more constraints than males (e.g., Jackson & Henderson, 1995; Shaw, 1994; Wesely & Gaarder, 2004). Jackson and Henderson (1995) found males were more likely to report structural constraints (e.g., lack of time due to work, equipment cost), whereas females encountered more intrapersonal and interpersonal constraints (i.e., perceptions of physical inadequacies, lack of time due to family care, unease with social encounters).

Notably, some constraints identified by females in Jackson and Henderson's (1995) study alluded to a female's dependency on others to foster participation in leisure activities (i.e., "don't know where to participate," "don't know where to learn"). Among females interested in hunting, constraints included fear of hunting alone and a lack of training or skills (Martin & Miller, 2008; Thomas & Peterson, 1993; Wesely & Gaarder, 2004). Indeed, studies of female hunters highlighted the importance of a woman's spouse serving as a hunting partner and mentor (e.g., Adams & Steen, 1997; Heberlein et al., 2008).

In addition to encountering more constraints than males, females also spend less time participating in leisure activities than males (Jackson & Henderson, 1995; Shaw, 1994). Henderson (1996) identified that time for personal leisure is reduced as a woman undertakes more roles in her life (i.e., wife, mother, full-time employee). Another possibility for reduced female participation in leisure is related to ethic of care ideology, which is more prevalent among females than males (Henderson & Allen, 1991; Shaw, 1994; Strang, 2001). Ethic of care refers to putting others' needs for comfort and assistance before one's own needs (Henderson & Allen, 1991; Shaw, 1994). The propensity to put others' needs before one's self has been linked to a reduced sense of entitlement to participate in personal leisure pursuits and guilt for taking time to participate (Henderson & Dialeschki, 1991; Peters & Raaijmakers, 1998; Shaw, 1994; Strang, 2001).

Closely related to ethics of care is familism, which describes the roles of individuals within the family structure (Henderson & Allen, 1991; Shaw, 1994). The role of the female as the primary care giver within the family can restrict time for leisure activities (Henderson & Allen, 1991; Shaw, 1994). Thompson (1995) suggested females report more constraints to leisure time because of family responsibilities than men. Brown, Lee, Mishra, and Bauman

(2000) suggested women without children participate in leisure more than mothers of the same age. In addition to being a constraint, putting the needs of others first may shape leisure motivations to match those of a spouse or other family members (Henderson, 1996; Henderson & Allen, 1991). For example, female hunters have identified spending time with their spouses and family as one of the primary reasons they choose to also hunt, which differs from male motivations for hunting (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008).

## **Motivations**

Motivations explain why people choose to participate in recreation activities and are related to benefits sought by the recreationist (Manfredo, Driver, & Tarrent, 1996; Kleiber, Walker, & Mannell, 2011; Pearce & Lee, 2005). Motivations promote participation in a leisure activity, whereas constraints reduce or inhibit participation (Manfredo et al., 1996; Pearce & Lee, 2005; Wright et al., 2001). Certain motivations may be shared among participants of the same activity, but the influence of activity-specific motivations vary individually (Graefe, Thapa, Confer, & Absher, 2000; Pearce & Lee, 2005). Motivations for specific leisure activities have remained constant within the population (Graefe et al., 2000; Manfredo et al., 1996); however, motivations for an individual may be change over time (Manfredo et al., 1996).

Motivations are comprised of four components: (a) needs or motive, (b) behavior or activity, (c) goals or satisfactions, and (d) feedback (Mannell & Kleiber, 1997; Figure 2.5). Mannell and Kleiber (1997) suggested motivations begin with one's needs, motives, desires, or expectations for participating in a leisure activity. At the first stage, individuals experience dissonance, which leads to the individual participating in their desired leisure activity. Goals or satisfaction with a leisure activity is developed from the expectations associated with the needs,

motives, and desires for a specific leisure activity (Mannell & Kleiber, 1997). Based on one's perception of their goals or satisfaction with a leisure activity, an individual may sustain or modify their needs or motives. Mannell and Kleiber (1997) suggested if participation in a leisure activity satisfies his or her needs, the individual will experience positive feedback that confirms and sustains their needs and by extension their motives. In contrast, if needs and satisfaction are not met through participation in a leisure activity, the individual will perceive negative feedback and modify his or her needs or motives, potentially choosing to eliminate participation in the future.

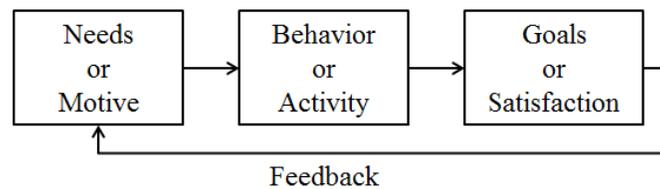


Figure 2.5. Mannell and Kleiber's (1997) general model of motivation.

Motivation can be intrinsic (i.e., participating in the activity is rewarding) or extrinsic (i.e., the activity yields other benefits, such as awards or monetary gain; Kleiber et al., 2011). Deci and Ryan (1985) suggested when intrinsic and extrinsic motivations are lacking, but the individual continues to participate, that individual experiences amotivation. Vallerand and Losier (1999) proposed three forms of intrinsic motivation. The first form is termed “toward knowledge” and suggested individuals are motivated to learn a new a new activity or expand their knowledge on the activity (Vallerand & Losier, 1999). “Toward accomplishment” is the second form of intrinsic motivation and is related to an individual's motivation to reach personal goals associated with an activity or to beat a personal best (Vallerand & Losier, 1999). Vallerand

and Losier's (1999) final form, "toward experiencing stimulation," referred to an individual participating in an activity because specific aspects of the activity are pleasurable. The magnitude of each form differs by individual and influences future participation (Kleiber et al., 2011). Indeed, handball players with lower levels of intrinsic motivation were more likely to cease participation in the sport (Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002).

Similar to intrinsic motivation, extrinsic motivation can take multiple forms (Deci & Ryan, 1991; Ryan & Deci, 2000). External motivation is developed through pressures outside one's self to continue an activity, such as a reward or punishment. Related to external motivation is introjected motivation, which is developed when an individual is seeking to please others. Introjected motivation is the pressure one puts upon himself or herself to continue an activity. Identified motivation relates to one participating in an activity because they think it will improve other aspects of their life. The last extrinsic motivation is integrated motivation and relates to an individual identifying themselves based on their choice of activity.

Motivations have been assessed in many ways (Covelli, 2011), though the Recreation Experience Preference (REP) scale developed by Driver and others (1991) or its reduced form developed by Decker and others (2001) is most commonly used in studies of outdoor recreation (e.g., Adams & Steen, 1997; Covelli, 2011; Schroeder et al., 2012; Wilhelm Stanis, Schneider, & Russell, 2009). The REP scale is based on the belief that leisure activities satisfy certain needs that would not be satisfied in non-leisure situations and was designed to address outdoor recreation participation in natural settings (Driver, Tinsley, & Manfreda, 1991; Manfreda et al., 1996). Driver and others (1991) developed the REP scale to measure 19 items related to motivations experienced by individuals participating in leisure activities; however, not all 19 items have been evaluated in individual studies (e.g., Covelli, 2011; Wilhelm Stanis et al. 2009).

The REP scale was reduced by Decker and others (2001) into 3 motivation orientations: (a) achievement, (b) affiliative, and (c) appreciative (Decker, Brown, & Siemer, 2001; Enck et al., 1993). The achievement motivation orientation is related to meeting tangible goals, such as harvesting a daily limit of ducks or a “trophy buck” (Decker et al., 2001; Enck et al., 1993). Social interactions, such as spending time with family and friends or being defined as a hunter, comprise the affiliative motivation orientation (Decker et al., 2001; Enck et al., 1993). Decker and others’ (2001) final motivation orientation, appreciative, is associated with the value related to spending time in nature and taking a break from everyday life. Motivations for hunting participation are frequently assessed using the motivation orientations developed by Decker and others (2001) rather than Driver and others’ (1991) REP scales (e.g., Adams & Steen, 1997; Schroeder et al., 2012). Satisfaction research closely parallels the categorization used for motivations by Decker and others (2001; e.g., Brunke & Hunt, 2007; Vaske, Fedler, & Graefe, 1986), which may be the reasoning for this apparent preference. However, Oquendo (2010) cautions against defaulting to the use of Decker and others (2001) motivation orientations and suggested researchers use exploratory factor analysis to determine which motivation classifications best fit their data.

Miller and others have hypothesized current methods for assessing motivations in consumptive recreation may be lacking and are testing an alternative method (C. A. Miller, Illinois Natural History Survey, personal communication). Additionally, current methods for assessing motivations may not capture motivations for hunting among females. Decker and others (2001) developed their scale for consumptive-recreation activities; however these activities are largely male-dominated. For example, in 2011 females comprised 11% of the total hunter and 27% of the angler population nationwide (USDI, 2012a). Previous studies of female

hunters have used methods to assess motivations similar to those in studies of the whole hunting population. Given that constraints differ between genders, motivations will likely also differ, meaning past survey designs may have resulted in an inaccurate assessment of motivations among female hunters. An assessment using open-ended questions of motivations among hunters is warranted because open-ended questions will allow respondents to respond in greater detail than close-ended questions (i.e., a respondent chooses a response from a list of potential responses). Close-ended questions are most commonly used in mail surveys and other quantitative studies, whereas open-ended questions are used in qualitative research.

### **Self-efficacy**

Self-efficacy is the belief one has in himself or herself to overcome challenges and negotiate constraints through self-confidence (Bandura, 1982; Loucks-Atkinson & Mannell, 2007). Bandura (1977) identified four sources of self-efficacy and the modes in which the sources operate: (a) performance accomplishments, (b) vicarious experiences, (c) verbal persuasion, and (d) emotional arousal (Figure 2.6). Performance accomplishments are based on previous experiences where the individual feels he or she has mastered or succeeded during the leisure activity (Bandura, 1977). Bandura (1977) suggested that successful experiences can help to mitigate the occasional negative experiences. The second source of self-efficacy is vicarious experience, which described the expectations an individual develops based on experiences from others (Bandura, 1977). Bandura's (1977) third source, verbal persuasion, proposed self-efficacy can be developed through information passed on from others. Using the previous example, the new hunter experiences the source of verbal persuasion when the mentor verbally shares hunting knowledge or experiences. Self-efficacy developed on vicarious experiences and

verbal persuasions are weaker and more pliable than performance accomplishments because they are based on the experiences of others rather than the individual’s own experiences (Bandura, 1977). The last source of self-efficacy as described by Bandura (1977) is emotional arousal.

Given that self-efficacy is a belief, standardized methods across leisure research to measuring self-efficacy do not exist as beliefs are linked to specific behaviors (Loucks-Atkinson & Mannell, 2007). Covelli (2011) developed a measure for self-efficacy among hunters using three categories (i.e., “skill confidence,” “support confidence,” “fear confidence”). Because standardization of self-efficacy measurements are not relevant across leisure research, utilizing open-ended questions to access hunters’ perceptions of self-efficacy is needed to understand how hunters are influenced by this factor of participation.

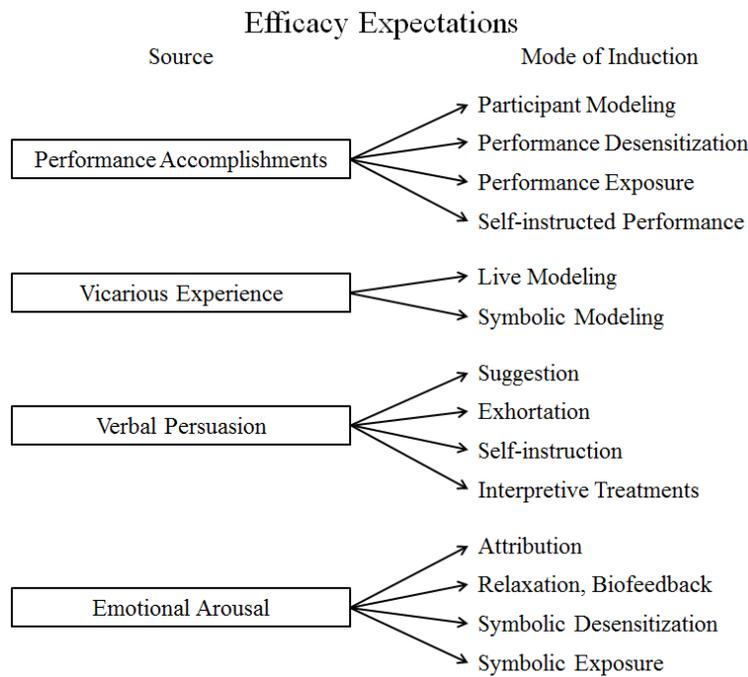


Figure 2.6. Bandura’s (1977) sources of efficacy and modes of source operation.

## **Social Support**

Perceived or actual negative input from social groups has been well documented as a source of interpersonal constraints, especially among females and adolescents (e.g., Culp, 1998; Henderson, 1994; Hurtes, 2002; Thomas & Peterson, 1993). In contrast, positive input or social support (e.g., mentoring, helping with scouting trips, information sharing) has been shown to increase participation (Covelli, 2011; Enck et al., 2000). When females participate in activities that are traditionally considered masculine, such as hunting, the role of social support may be of greater importance than when females participate in feminine or gender-neutral leisure activities (Covelli, 2011; Hurtes, 2002).

Spouse support is similar to social support, except that it is related to the emotional support provided by one's partner, such as communication, encouragement, and empathy (Burke & Weir, 1982; Goff, 1997; Skinner, 1982; Stebbins, 1992). Spouse or family support can also take the form of a family participating in the committed individual's preferred leisure activity (Stebbins, 1992). Goff (1997) determined commitment and perceived conflict from the committed individual's spouse were positively related. Conflict with spouses or other family members may influence future participation or the level of commitment. Including family members in the preferred leisure activity may reduce conflict for the committed individual. In a study of runners, Yair (1990) suggested committed individuals who participate in running with their family have reduced leisure-family conflict than individuals whose family does not participate in running. Social support from spouses, family, and friends may be of greatest importance for mothers because they are often constrained due to child care and household responsibilities (Brown, Brown, Miller, & Hansen, 2001). Brown et al. (2001) suggested the form of social support needed most by mothers is childcare and leisure companionship.

Among hunters, Covelli (2011) classified social support as “assistance with hunting” and “confidence from others.” While valid choices for categorizing social support, it is my opinion this study should have included measures of an individual’s perception of the approval they receive from their social groups, as such approval can at times determine one’s choice to participate or not (Culp, 1998; Henderson, 1994; Hurtes, 2002; Thomas & Peterson, 1993). Evaluating hunters using open-ended questions will allow researchers to become more familiar with the role of social support in hunter participation.

### **Constraint Negotiation**

Constraint negotiation is the process of overcoming perceived constraints to participation (Jackson, 2000; Jackson et al., 1993; Scott, 1991). Negotiation strategies are triggered when constraints are perceived to exist (Hubbard & Mannell, 2001). Motivations, self-efficacy, and social support have been shown to have a positive relationship with constraint negotiation (Covelli, 2011; Loucks-Atkinson & Mannell, 2007; Shaw, 1994; White, 2010), whereas constraints are negatively related (Hubbard & Mannell, 2001; Jackson et al., 1993; Loucks-Atkinson & Mannell, 2007; Son, Mowen, & Kerstetter, 2008). Interactions between one’s motivations and constraints to a leisure activity determine how well one can negotiate constraints (Hubbard & Mannell, 2001; Jackson et al., 1993; Loucks-Atkinson & Mannell, 2007; Son, Mowen, & Kerstetter, 2008). Individuals who are more motivated and perceive few constraints are more likely to overcome their constraints than those with little motivation who perceive many constraints.

Constraint negotiation strategies can be cognitive (e.g., “ignoring the problem,” “just putting up with it”) or behavioral (e.g., managing time or finances, obtaining skills or training).

Research shows behavioral negotiation strategies are used more often than cognitive (Jackson & Rucks, 1995). Wilhelm Stanis et al. (2009) included cognitive strategies when evaluating negotiation strategies of park visitors, but many studies of constraint negotiation focus exclusively on behavioral strategies (e.g., Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son, Kerstetter, & Mowen, 2008; Son, Mowen, & Kerstetter, 2008). The majority of constraint negotiation studies evaluated the four behavioral negotiation categories (i.e., time management, skill acquisition, interpersonal coordination, financial management) developed by Hubbard and Mannell (2001), but some researchers have modified these categories to fit their studies (e.g., Covelli, 2011; Loucks-Atkinson and Mannell, 2007; Wilhelm Stanis et al., 2009).

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### III

## MALE AND FEMALE HUNTER DEMOGRAPHICS IN ILLINOIS

### **Introduction**

Hunters contribute substantial funding for natural resource conservation through the purchase of hunting licenses, hunting equipment, and memberships in conservation organizations (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007). Additionally, hunters provide support to local economies through the purchase of lodging, food, and equipment at hunting locations (Grado, Hunt, Hutt, Santos, & Kaminski, 2011; USDI, 2012a). During 2011, hunters spent 33.7 billion US dollars on hunting related expenses, which equates to approximately 2,460 US dollars spent per hunter (USDI, 2012a). Hunter participation is critical to maintain funding for natural resource conservation, yet the hunting population decreased 11% nationally between 1991 and 2006 (USDI, 2012b). Hunting participation increased 9% from 2006-2011 (USDI, 2012a); however, this increase was only observed during one sampling period and may not be indicative of the long-term trend of hunting participation.

In contrast to national hunting population trends, female hunting participation increased (Ryan & Shaw, 2011); between 1991 and 2011 female participation increased from 1.1 to 1.5 million (USDI, 1992; 2012a). Moreover, females became a greater proportion of the hunting population, increasing from 8% to 11% during the same 20 year period noted above (USDI, 1992; 2012a).

Numerous studies have documented influences of gender on leisure preference and participation (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994). Changes in hunter demographics warrant reevaluation of hunter characteristics to better understand female hunters. Developing a

better understanding of increased female participation may provide a foundation for developing programs that recruit and retain hunters.

My objectives for this study were to determine: (a) influence of gender on participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing to hunt, perceived skill level, total years hunting, years hunting in Illinois, and age; and (b) if perceived skill level is dependent on gender, participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing to hunt, total years hunting, years hunting in Illinois, and age.

### **Methods**

During July 2013, I conducted a telephone survey of individuals who purchased an Illinois resident hunting license for the 2012-13 hunting season (Appendix A). I stratified my sample by gender and attempted to contact 680 males and 588 females. One-hundred twelve males (16%) and 84 females (14%) completed the telephone survey. Females accounted for 9% of the hunting population; however, females comprised 46% of my sample because I wanted to have an equal representation of males and females. Telephone calls were made during evenings (i.e., 1800-2000 hours) Sunday-Thursday and afternoons (i.e., 1400-1600 hours) Saturday-Sunday. I called individuals up to five times before categorizing them as a non-respondent.

I used a Pearson's chi-squared analysis to determine the influence of gender on participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing for hunting, and perceived skill level (SPSS 21). I used logistic regression analysis to evaluate influence of gender on total years hunting,

years hunting in Illinois, and age (SPSS 21). Lastly, I used a stepwise regression to analyze the components that contribute to perceived skill, including gender, participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing for hunting, total years hunting, years hunting in Illinois, and age (SPSS 21).

## Results

Males hunted an average of 37.6 years total and 34.2 years in Illinois. In contrast women hunted an average of 11.9 years total and 11.1 years in Illinois. Additionally, mean age for males was 56.3 years, whereas mean age for females was 42.1 years.

Males and females differed in number of days hunted during the 2012-13 hunting season ( $\chi^2 = 20.895, p < .01, \phi = .341$ ) and perceived skill level ( $\chi^2 = 41.397, p < .01, V = .461$ ; Table 3.1). Gender did not influence participation in the 2012-13 hunting season ( $\chi^2 = .204, p = .651, \phi = .032$ ), intention to hunt during the 2013-14 hunting season ( $\chi^2 = .010, p = .919, V = .007$ ), or number of days spent preparing to hunt ( $\chi^2 = .712, p = .701, V = .063$ ). Males hunted more years total ( $\beta = -.607, \Delta R^2 = .365, F_{1,192} = 111.766, p < .01$ ) and in Illinois ( $\beta = -.570, \Delta R^2 = .321, F_{1,192} = 92.310, p < .01$ ) as well as were older than females ( $\beta = -.348, \Delta R^2 = .117, F_{1,192} = 26.795, p < .01$ ; Table 3.2).

Table 3.1. Results from Pearson's chi-squared analysis determining the influence of gender on hunter participation and perceived skill level of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey;  $n = 112$  males and 84 females.

Variable	Response	Male	Female	$\chi^2$	$p$	$\phi$ or $V$
Participated in the 2012-13 hunting season	Yes	91%	93%	.204	.651	.032
	No	9%	7%			
Intending to hunt during the 2013-14 hunting season	Yes	94%	94%	.010	.919	.007
	No	6%	6%			
Number of days hunting during the 2012-13 season	<10	49%	82%	20.895	< .01	.341
	11-20	19%	8%			
	>20	32%	10%			
Number of days preparing for the 2012-13 hunting season	<10	73%	68%	.712	.701	.063
	11-20	9%	12%			
	>20	18%	20%			
Perceived skill level	Novice	5%	33%	41.397	< .01	.461
	Intermediate	51%	57%			
	Advanced	44%	10%			

Table 3.2. Results from logistic regression analysis determining the influence of gender on hunter demographics of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey;  $n = 112$  males and 84 females.

Variable	$\bar{x}$		$\beta$	$\Delta R^2$	$df$	F	$p$
	Males	Females					
Total years hunting	37.6	11.9	-.607	.365	1,192	111.766	< .01
Years hunting in Illinois	34.2	11.1	-.570	.321	1,192	92.310	< .01
Age	56.3	42.1	-.348	.117	1,192	26.795	< .01

Gender ( $\beta = -.207$ ,  $t = -2.557$ ,  $p = .011$ ), number of days hunted during the 2012-13 season ( $\beta = .158$ ,  $t = 2.274$ ,  $p = .024$ ), and number of years hunted ( $\beta = .294$ ,  $t = 3.648$ ,  $p < .01$ ) were significant in the stepwise regression model to predict perceived skill level (Table 3.3). Males who hunted more days and years were more likely to report a greater skill level than others ( $\Delta R^2 = .263$ ,  $F_{3,173} = 21.956$ ,  $p < .01$ ; Table 3.3). The variable "participation in the 2012-

13 hunting season” was reported to be “constant or missing correlations” and was removed from the model (SPSS 21).

Table 3.3. Results from stepwise regression analysis determining the components contributing to perceived skill level, including gender, hunter participation, and hunter demographics of 2012-13 Illinois resident hunting license purchasers contacted during the telephone survey;  $n = 112$  males and 84 females.

Variable	$\beta$	t	p	$\Delta R^2$	df	F	p
Gender	-.207	-2.557	.011	.263	3,173	21.956	< .01
Number of days hunting during the 2012-13 season	.158	2.274	.024				
Total years hunting	.294	3.648	< .01				

## Discussion

Females accounted for a lower proportion of the hunting population in Illinois (9%) than nationally (11%; USDI, 2012a). Males hunted an average of 25.7 years more than females, yet are only 14.2 years older, suggesting that women began hunting later in life or hunt intermittently. Participation in the 2012-13 hunting season and intention to hunt during the 2013-14 season did not differ between males and females; however, females hunted fewer days during the hunting season than males.

Perceived hunting skill level was related to gender, number of days hunting, and number of years hunting. Number of years hunting had the greatest influence on perceived skill level, with number of days participating during the season having the least influence. Influence of gender in this model suggests females were more likely to report a lower skill level than males with similar hunting experience (i.e., number of days preparing for hunting, number of years

hunting). Females perceived themselves to have a lower skill level than males, which may be related to the reduced participation during the hunting season and fewer years of hunting experience.

Female hunting participation has been increasing nationwide (Ryan & Shaw, 2011), yet programs may need to be developed that will increase participation during the hunting season and build upon existing skills to retain this portion of the population. Comparison of motivations and constraints perceived between males and females related to hunting should be considered for future studies to ensure managers understand the increasing female proportion of this population. Developing an understanding of potential differences between genders may help managers customize recruitment and retention programs for specific groups within the hunting population.

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## IV

# FACTORS INFLUENCING HUNTER RECRUITMENT AND RETENTION OF MALE AND FEMALE HUNTERS IN ILLINOIS

### **Introduction**

Natural resource conservation is funded largely by hunters and other consumptive recreationists. Hunters purchase hunting licenses, hunting equipment, and memberships in conservation organizations, and those moneys are contributed to conservation endeavors (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007). Hunter recruitment and retention is needed to maintain funding for conservation programs, and the 11% decline in the hunter population between 1991 and 2006 is a cause of concern for future management efforts (USDI, 2012a). Hunting participation has increased 9% from 2006-2011 (USDI, 2012b); however, this increase was only observed during one sampling period and may not be indicative of the long-term trend of hunting participation.

Social norms of gender roles have been challenged through feminist movements, and females are increasing participation in customarily male-dominated activities (Henderson, Bialeschki, Shaw, & Freysinger, 1996; Taylor, 1989). Hunting has traditionally been considered a masculine activity and the number of women in the sport has increased in recent decades (Bissell, Duda, & Young, 1998; Heberlein, Serup, & Ericsson, 2008; Ryan & Shaw, 2011). Female participation increased from 1.1 to 1.5 million between 1991 and 2001 (USDI, 1992; 2012b). Moreover, female recruitment is currently helping to mitigate the loss of male hunters (Bissell et al., 1998; Heberlein et al., 2008; McFarlane, Watson, & Boxall, 2003), as the

proportion of the hunting population also increased from 8% to 11% during the same 20 year period noted above (USDI, 1992; 2012b).

Socialization into the hunting culture is primarily taught by fathers or other male family members (Bissell et al., 1998; Boglioli, 2009; Duda, Bissell, & Young, 1996; Purdy, Decker, & Brown, 1989; Shaw & Gilbert, 1974), and most are initiated into hunting as youths (Copp, 1975; Langenau & Mellon, 1980; O'Leary, Behrens-Tepper, McGuire, & Dottavio, 1987). Duda et al. (1996) stated that "It takes a hunter to make a hunter" (p. 329); therefore, exposure to hunting and presence of other family members are important to hunter initiation. Moreover, hunters introduced at younger ages are more likely to continue participation and have greater levels of commitment compared to those who began hunting later in life (McFarlane et al., 2003; O'Leary et al., 1987; Purdy et al., 1989).

Initiation of female hunters differs greatly from that of male hunters, as most begin hunting as adults and are recruited by their spouse (Adams & Steen, 1997; Heberlein et al., 2008; Jackson, McCarty, & Rusch, 1989). Additionally, research suggests females develop leisure preferences that reflect the preference of other family members (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008; Henderson, 1996; Henderson & Allen, 1991); thus, participation in hunting may not be an indication of a female's desire to hunt. Moreover, females are more responsive to input from social groups (Culp, 1998; Henderson, 1994; Jackson & Henderson, 1995; Thomas & Peterson, 1993), and social groups may be more influential when females participate in masculine recreation activities (Covelli, 2011; Hurtes, 2002). Due to the influence of social groups, females who participate in hunting may help to recruit and retain other females into hunting (Boglioli, 2009; McFarlane et al., 2003; Shaw & Gilbert, 1974).

Females comprise a minority of the hunting population, yet an understanding of their recruitment into hunting and role in recruiting new hunters is not fully known. Most studies of female hunters occur by singularly evaluating females in a population and comparing results to previous literature (e.g., Adams & Steen, 1997; Heberlein et al., 2008), rather than using male hunters from the same population as a control. Understanding gender differences in recruitment and retention is imperative to identify those who are at a greater risk of desertion to allow programs to be refined to better promote the retention of existing and recruitment of new members.

My objectives for this study were to determine if differences exist between genders for: (a) age of initiation and interest in hunting, (b) types of species hunted during initiation and currently, (c) perception of identity, (d) individuals who mentored them into hunting, (e) family members who hunt, and (f) individuals they mentored into hunting in Illinois.

## **Methods**

During the summer of 2013, I conducted semi-structured interviews of 2012-13 Illinois hunting license purchasers (Appendix B). I chose semi-structured interviews because they provide flexibility to individualize the interview and allowed me to obtain a detailed account of the interviewee's hunting experience (Wengraf, 2001). Among hunters, individuals develop their own meaning of hunting and reasons for participating. I used a constructivist epistemology with an interpretivist perspective when developing my study because it fits best with the hunting experience. Constructivist epistemology suggests that there is no universal truth; rather individuals develop their own personal understandings and perceptions of the truth (Crotty, 1998). The interpretivist perspective works well with the constructivist epistemology because it

assists the researcher in developing an understanding of how a person develops his or her perception of reality (Crotty, 1998).

I wanted to interview individuals with diverse hunting backgrounds, but the 2012-13 hunting license database provided only each individual's contact information. Therefore, I conducted a brief telephone survey to obtain more information about each hunter (Chapter 2) and selected a purposive sample of individuals who represented different age, gender, hunting background, and other demographic factors for interviews (Oliver, 2006). Ninety-nine males and 59 females responded to the telephone survey and expressed an interest to participate in an in-person interview. To control for differences in responses based on location within the state, I stratified my sample by the five Illinois Department of Natural Resources (IDNR) administrative regions (Figure 4.1). My data became saturated (i.e., new responses were not generated by additional participants; Creswell, 2007; Marshall, 1996) after interviewing 12 males and 15 females. Background information on interviewees can be found in Table 4.1. I conducted interviews in-person at an interviewee's home or a public location (e.g., coffee shop, fast food restaurant), depending on interviewee's preference. Interviews took an average of 90 minutes.

I analyzed interviews using symbolic interactionism methodology because this methodology addresses how individuals interact with things based on their own meaning assigned to it and meanings can be modified based on interactions with others in their social group (Crotty, 1998). Using an inductive approach, I categorized statements into general themes and subthemes. General themes primarily followed the theme of interview questions (Appendix B), but other themes emerged while talking with interviewees. General themes were divided into subthemes to describe the data at a finer scale (Table 4.2).

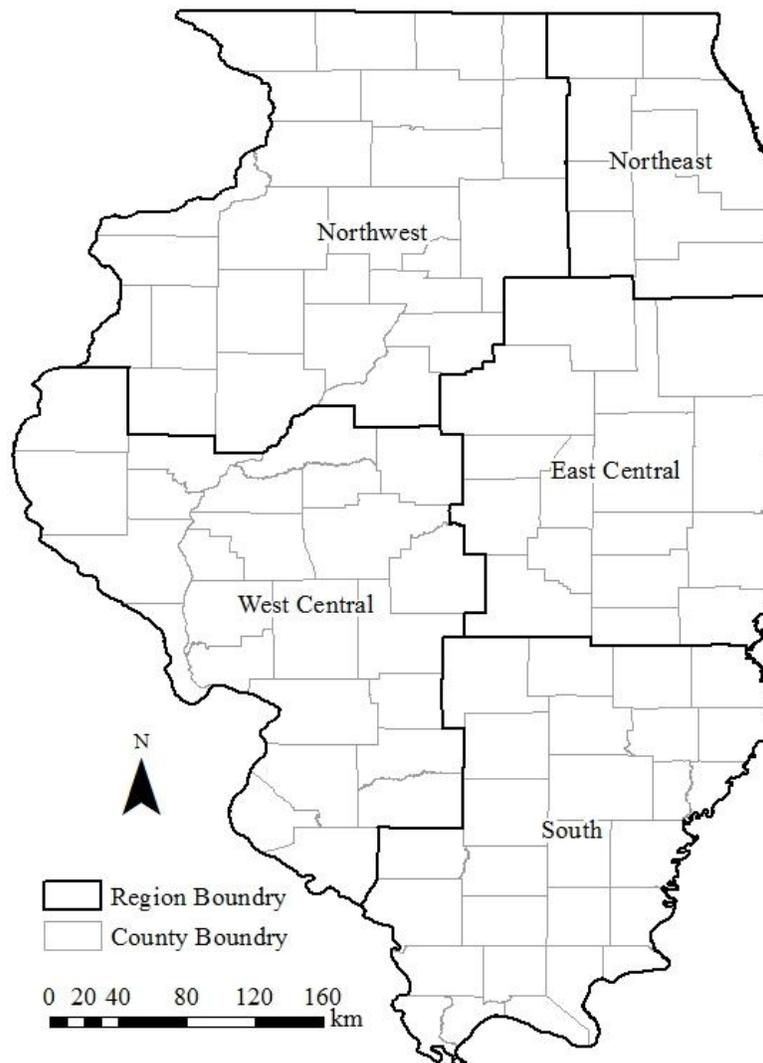


Figure 4.1. Illinois Department of Natural Resources administrative regions.

Table 4.1. Interviewee responses to telephone survey questions.

Pseudonym	Gender	Hunted during 2012-13 season	Plan to hunt during 2013-14 season	Days hunted during 2012-13 season	Days preparing for 2012-13 season	Skill level <sup>a</sup>	Total years hunting	Years hunting in Illinois	Age	Region <sup>b</sup>
Abraham	Male	Yes	Yes	>20	>20	A	46	46	66	S
Amy	Female	Yes	Yes	11-20	<10	A	35	21	58	WC
Andrea	Female	Yes	Yes	<10	<10	I	10	10	55	NE
Beth	Female	Yes	Yes	>20	<10	I	25	25	34	S
Bob	Male	Yes	Yes	<10	<10	I	42	4	58	NW
Carl	Male	No	Yes			I	70	70	81	WC
Carol	Female	Yes	Yes	>20	>20	I	30	30	76	EC
Dale	Male	Yes	Yes	>20	<10	I	50	50	54	EC
Daryl	Male	Yes	Yes	<10	<10	A	31	31	36	EC
Eliza	Female	Yes	Yes	<10	>20	I	2	2	55	NW
Eugene	Male	No	No			A	60	60	79	WC
Glenn	Male	Yes	Yes	<10	<10	N	20	20	41	NE
Haley	Female	No	Yes			N	0	0	17	NE
Jim	Male	Yes	Yes	>20	<10	I	45	40	69	NW
Joe	Male	Yes	Yes	>20	11-20	I	12	12	21	S
Judith	Female	Yes	Yes	<10	<10	N	30	20	65	WC
Lily	Female	Yes	Yes	<10	<10	I	10	10	66	S
Lori	Female	Yes	Yes	<10	>20	N	1	1	48	EC
Maggie	Female	Yes	Yes	>20	<10	A	18	18	67	EC
Mary	Female	Yes	Yes	<10	<10	N	5	5	74	WC
Patricia	Female	Yes	Yes	<10	<10	I	6	6	52	S
Penny	Female	Yes	Yes	>20	>20	A	10	10	54	WC

<sup>a</sup>Self-assessed skill level, where A = Advanced, I = Intermediate, and N = Novice.

<sup>b</sup>Illinois Department of Natural Resources' administration region, where EC = East Central, NE = Northeast, NW = Northwest, S = South, and WC = West Central (Figure 4.1).

Table 4.1 (continued). Interviewee responses to telephone survey questions.

Pseudonym	Gender	Hunted during 2012-13 season	Plan to hunt during 2013-14 season	Days hunted during 2012-13 season	Days preparing for 2012-13 season	Skill level <sup>a</sup>	Total years hunting	Years hunting in Illinois	Age	Region <sup>b</sup>
Phillip	Male	Yes	Yes	>20	<10	A	25	25	43	S
Rick	Male	Yes	Yes	11-20	<10	I	25	25	44	EC
Shane	Male	Yes	Yes	<10	<10	N	65	65	72	NW
Sophia	Female	Yes	Yes	<10	>20	I	10	10	58	WC
Tara	Female	Yes	Yes	>20	>20	N	1	1	63	NW

<sup>a</sup>Self-assessed skill level, where A = Advanced, I = Intermediate, and N = Novice.

<sup>b</sup>Illinois Department of Natural Resources' administration region, where EC = East Central, NE = Northeast, NW = Northwest, S = South, and WC = West Central (Figure 4.1).

Table 4.2. General themes and subthemes emerged from interview responses.

General theme	Subtheme I	Subtheme II	Subtheme III
Experiences	Access	Private	Family Friend Own
		Provides access	
	Consumption	Public Self Others	Donate Given to family or friends
	Current harvest	Large game Small game	
	Equipment		
	Excitement		
	Favorite	Large game Small game	
	Future hunts		
	Hunting frequency	Decline	Age Health
	Lapses	Childrearing College/army License fees	
	Moral code	Ethics	Fair chase No poaching Reduce wounding
		Safety Scouting Shooting Other	
		Preparation	
	Hunters	Traditions	
Family		Males Females Significant other	
Friends		Couples Female Male	
Partner		Alone Club	
Family		Female Male Significant other	
Friends		Female Male	

Table 4.2 (continued). General themes and subthemes emerged from interview responses.

General theme	Subtheme I	Subtheme II	Subtheme III
Identity	Hunter	Defines self	
Interest	Development	Part of identity Lack of interest Others	Female Male Significant other
Introduction	Expected Outdoors Recreation		
	Age Experience	Self	
Lessons from hunting	Harvest	Exposure Opportunity Large game Small game	
	Appreciation Resistance Self-sufficiency	Natural resources Gender roles	
Mentoring others	Abilities Family	Female Male Significant other	
	Others Outdoors	Female Male Female Male Youth	
Mentors	Regrets Appreciation Education Family		
	Others Self	Safety Male Significant other Male	

Table 4.2 (continued). General themes and subthemes emerged from interview responses.

General theme	Subtheme I	Subtheme II	Subtheme III
Perceptions	Gender	Camaraderie Changes in norms Inequality	
	Hunting	Dedication Subsistence Trophies	
	Opportunity	Decrease Increase	
Shooting sports	Competition		
	Female only	NWTF IDNR	
	Host event		
	Interest Passion Safety	Hunting	

## Results

### Introduction to Hunting

All males that were interviewed began hunting before they were 18. In contrast, five females went afield when they were youths, but two reported going afield without a firearm or bow. Twelve females began or reentered hunting as adult; three women reported being exposed as youths but ceased being afield for multiple years before starting again. Males discussed being family members giving them firearms and ammunition, and two men discussed how access to land for hunting provided them with an opportunity to hunt. Women discussed their hunting opportunities, commenting on lack of mentors, exposure to hunting, and perceived opportunities to participate in hunting. Nearly all males began hunting small game (e.g., eastern cottontail rabbit [*Sylvilagus floridanus*], ringed-neck pheasant [*Phasianus colchicus*]), and some reported hunting large game (e.g., eastern wild turkey [*Meleagris gallopavo*], white-tailed deer

[*Odocoileus virginianus*]) during their first hunts. Females, however, were more evenly split, with approximately half who began hunting small game and half hunting large game.

Males and females also differed in development of their interest in hunting. Three males discussed how hunting was expected of them since they were raised a rural community, but none of the females felt that their participation in hunting was expected by others. Most women and some men commented on others increasing their interest in hunting. Females primarily said that those who sparked their interest were their significant other or other males; however, male interviewees did not specify the gender of those who influenced their interest. Additionally, three women discussed their lack of interest in hunting until others exposed them to the sport. Females and males stated that their interest in hunting was self-motivated, but the reasons behind this interest differed between genders. Females remarked on their interest to try the sport, whereas males commented on being provided with guns, property on which to hunt, or other tangible opportunities.

Three males and females said their interest developed because hunting was a way to spend their leisure time. Interviewees discussed a lack of other recreation activities while growing up on a farm and the others discussed an interest in firearms that developed into a desire to hunt during their leisure time. Females also commented that their interest in being outdoors made them interested in hunting.

### **Development as a Hunter**

Most males and females hunted and preferred to hunt large game at the time of the study. Additionally, most males also commented on hunting small game; however, few females reported hunting this type of game. Reasons for preference to hunt certain species were similar

between genders. Large game hunters cited the challenges associated with hunting these species and being in the outdoors where it is peaceful. Carol, a woman who has been hunting for 30 years, described the challenge of calling turkeys and the beauty of their response; “When a tom gobbles out there first thing in the morning, it is like the sound of music.” Small game hunters cited the abundance of wildlife and greater chance of harvest as reasons for preferring to hunt small game over large game. Additionally, approximately half of the females interviewed commented on different types of hunting that they would like to try in the future, whereas few males made similar comments.

Five males and females hunted with firearms, one male and female hunted with bows, and four males and females hunted with both firearms and bows. Males discussed how their hunting experience connected them to the tradition of hunting with family members, but no females commented on hunting as a component of family tradition. Females commented that their hunting experience was related to excitement in seeing and hunting game; only one male commented on this topic.

Most males and females had access to private land for hunting. Males hunted on property that they owned, land owned by family members, or friend’s property. Females also hunted on their own property or on property owned by friends. One male and female discussed hunting on public land. Additionally, one male and two females discussed providing access to other hunters who hunted for species that they did not hunt.

Most males and females commented on eating what they harvested or having other arrangements for the meat before they harvested (e.g., give to a friend, donate to food pantry). Females discussed their moral code while hunting, but no males made such statements. For instance, Carol remarked that her family stressed safety and hunting ethics, such as fair chase

and no poaching, whereas Judith was “picky” and did not like shooting “fat fawns.” Females also commented on the importance of harvesting an animal instead of wounding it. Maggie, a hunter for 18 years, said she follows the motto “If it’s brown, it’s down with just one round.” Females stated that it is important to be patient during hunting to prevent wounding animals or to ensure that you safely make a quality shot. Amy, a hunter for 35 years said “I learned to just wait for the shot and if it not meant to be, it’s not meant to be.” No males discussed patience while hunting.

Males and females discussed similar methods for preparing for the hunting season. Three males and one female commented on scouting areas before the season to learn the movements of wildlife through the area. Two females and one male discussed the importance of practicing shooting, and said that they would go to a shooting range or set up a shooting range on their property. Additionally, one woman said that she prepared for the hunting season by practicing getting into and out of a tree stand to overcome her fear of heights.

More females than males stated periods of non-hunting. All females cited raising children or being pregnant as the reason for their lapse in hunting. Reasons for a lapse in hunting by males included being in college or enlisted in the army, unwilling to participate since license fees were increased, and raising children. Only males discussed a decline in their hunting frequency and cited increased age and decreased health as the cause.

### **Hunter Identity**

Approximately half the interviewees said that they identified themselves as hunters. Bob, a male hunter of 42 years, stated “I like to shoot and hunt. Some people play golf, I happen to like that [hunting] better.” The remaining interviewees said that they did not identify themselves as hunters, but all of those continued the conversation by saying that being a hunter was part of

their identity. Males commented that hunting has taught them an appreciation of nature, whereas females discussed what hunting meant to them in relation to gender roles. Amy said that being a hunter “Defines that I can carry a gun and know how to use it.” She continued, stating, “I am a girly-girl, but this is something that I like to do... women are capable and equal to men.” Two women also discussed how hunting made them feel more self-sufficient and had found ways to participate in hunting without depending on a male to assist them.

Females discussed their perceptions of gender and hunting; no males discussed this topic. Maggie discussed her experiences of inequality and said other individuals would say “Oh, she is a woman.” Amy commented “They [men] don’t want women around [when hunting],” although she also mentioned that hunting “Used to be termed gender-specific, but it does not have to be.” Indeed, Patricia, a hunter of six years, commented on the camaraderie among female hunters and perceived females as being a key to bringing more people into the sport.

Most interviewees discussed their perceptions on hunting. Five hunters commented on other hunters hunting for trophies rather than animals, and Shane, a hunter of 65 years, summarized, “Everybody [deer hunters] is deer crazy.” Andrea, a hunter of 10 years, in talking on her perceptions for reasons to hunt, said that societies were developed through hunting for food and disliked those who hunt for sport. “I do not consider myself a killer... it [hunting] is part of being an omnivore.” Indeed, Jim, a hunter of 45 years, commented that humans were the “original predator” since you could not always buy food from a grocery store. Three hunters talked about the dedication needed for hunting. For instance, Penny, a hunter of 10 years, said, “Hunting sounds easy, but it really is not... a lot of people hunt, but it is easy to make mistakes and end up not killing any deer.”

More females than males commented on an interest in hunting other species of wildlife in the future. Two males commented on a decline in hunter opportunities due to changes in habitat. In contrast, three females and one male discussed an increase in opportunities. The inclusion of crossbows in hunting regulations allowed three hunters to continue bow hunting once age and health limit their ability to draw a recurve or compound bow.

### **Influence of Shooting Sports**

Males and females discussed participating in shooting sports activities. Interviewees commented on their interest and passion for shooting sports and hunting, while teaching firearm safety. Glenn, a hunter of 20 years, said “I do have a love for guns,” while Maggie stated, “Shooting is my life, guns are my life.” Males and females commented on hosting shooting sports events on their property with family and friends. Two women said they participated in 3-D archery competition with their significant others, while another commented on previously participating in pistol shooting competitions. Additionally, two women discussed participating in female-only shooting opportunities (i.e., IDNR wingshooting clinics, National Wild Turkey Federation Women in the Outdoors program).

### **Learning to Hunt**

Most males learned to hunt from male family members, such as fathers, uncles, brothers, and grandfathers. Some males said that they learned to hunt from their male friends or on their own as they did not come from a hunting family or others in their family were not familiar with the type of hunting they learned. Almost half of the interviewed females learned to hunt from their significant others; however, no males learned to hunt from their significant others. Another

difference between male and female recruitment was that some females learned to hunt from their sons, whereas no males commented on learning from their children. Two females learned to hunt from males outside their family, but in contrast to male hunters, these individuals were friends with the female hunter's spouse and not their personal friends. For instance, Mary, a novice hunter of five years, said that her husband and his deer camp friends taught her to hunt. Additionally, one female said that she learned to hunt on her own, but she had shot pistol competitively, and thus was experienced with firearms before learning to hunt.

Females discussed their appreciation of having family members to encourage them and teach them to hunt. Sophia, a hunter of 10 years, stated that it is "Nice to have a supportive husband, without that, I probably would not have pushed it [learning to hunt]." No males commented on their appreciation of those who taught them to hunt. Males and females commented on the role of hunter and gun education courses in their development as a hunter. Hunters commented on the importance of learning how to safely handle firearms for hunters and non-hunters. For instance, Daryl, a hunter of 31 years, stated that "Ignoring guns doesn't make them safer, it just makes you ignorant."

### **Hunter Relationships**

Nearly all hunters reported having family member who hunted and of those, all had males in their family who hunted. Approximately half of the interviewees commented on having female family members who hunted. Most males and approximately half of the females reported having fathers who hunted. Females reported having more hunters from younger generations in their family than males. Additionally, nearly half of the females commented on having younger female hunters in their family (i.e., daughters, granddaughters), whereas few males reported the

same. Many females said they had daughters who also hunted, but only one male had a daughter who hunted. Additionally, males and females similarly reported having younger male hunters in their family (i.e., son, grandson). Most females said their significant other also hunted, but few males had significant others who hunted. Most males and females commented on having friends who also hunted. Males and females said they had male friends who hunted; however, females also had female friends who hunt. Additionally one female reported knowing couples in her circle of friends who hunt.

Most males and females hunted with family members; most hunted with males, but some also hunted with females. More males reported hunting with male friends than hunting with family members. In contrast, females hunted with female friends, but more commented on hunting with family members. Some males and females said that they hunted alone. One male said he was a member of a hunting club and hunted with that group, while one female mentioned going on hunting trips with the group Ladies in Camo which provides female-only hunting opportunities.

### **Mentoring New Hunters**

All males and most females introduced others into hunting. Males predominately taught their sons and daughters. In contrast, females predominately taught their granddaughters, grandsons, and daughters. Males also taught their significant others to hunt, whereas no females taught their significant other to hunt.

Males taught others outside their family to hunt, most of whom were males. Three males mentioned they took youths from their local area hunting. One female discussed teaching other females to hunt, but thought that it had occurred indirectly through her involvement in the

National Wild Turkey Federation [NWTf] Women in the Outdoors [WITO] program. Males and females commented on mentoring others about the outdoors. Two females and one male commented on teaching their grandchildren to enjoy the outdoors and wildlife. One female said that her husband did not participate in outdoor recreation activities before they were together, so she mentored him; he in turn taught her to hunt. Dale, a hunter of 50 years, mentioned assisting in a youth camp that taught hunter safety, shooting, and fishing to get youths interested in the outdoors and stated that he enjoyed his role since “The kids are the future.”

Two females expressed concern about their abilities to mentor others. One female said she felt her husband would be a better teacher as he has more experience, while the other said that she was still learning and thought her daughter may not want to learn from her. One male said that he regrets that he did not teach his daughters to hunt since they had expressed an interest. Carl, a hunter of 70 years, talked about the change in hunter recruitment opportunities from when he started hunting. He felt that people have changed to a “different breed” and there were too many other activities for youths that it made it difficult for them to find the time to hunt.

## **Discussion**

### **Hunting Experiences**

Studies of hunters documented that at least 80% of hunters began hunting as youths (Copp, 1975; Langenau & Mellon, 1980; O’ Leary et al., 1987). Similarly, males in my study began hunting as youths, primarily hunting small game. Males also perceived opportunities to hunt when they were provided with tangible items, such as firearms or other equipment or

hunting property. In contrast, few females were afield when they were youths. Moreover, some of those women only observed other hunters and did not carry a firearm or bow. Studies of female hunters also documented individuals beginning initiation in adulthood (Adams & Steen, 1997; Heberlein et al., 2008; Jackson et al., 1989). Of the females who began going afield as youths, some had a lapse in hunting participation and did not reenter the sport until they were adults. Moreover, more females than males began hunting large game and discussed their hunting opportunities in relation to others (e.g., access to mentors, exposure to hunting).

Hunters were predominately white males raised in rural areas (Langenau & Mellon, 1980; Zinn, 2003). Males interviewed perceived themselves as being expected to hunt, especially if they were raised in a rural community, suggesting that hunting may be part of the local culture and recreation in rural areas. Indeed, hunters commented on developing an interest in hunting as a result of a lack of other recreation activities in their rural communities.

Similar to males, exposure to hunting is linked to females developing an interest in the sport. Although I did not ask specific questions about perceived constraints, responses from females followed previous constraint research that suggests females are dependent on others to foster participation in leisure activities (cf, Jackson & Henderson, 1995). Additionally, comments from female hunters alluded to the different types of constraints experienced by each gender. Females commented on making a choice to hunt, suggesting negotiation of intrapersonal constraints (Crawford & Godbey, 1987; Jackson, 2000; Jackson, Crawford, & Godbey, 1993). In contrast, males commented on obtaining firearms and hunting property, suggesting negotiation of structural constraints (Crawford & Godbey, 1987; Jackson, 2000; Jackson et al., 1993). In that regard, my findings are similar to that of Jackson and Henderson (1995) who suggest females are

more likely to report more intrapersonal and interpersonal constraints, whereas males are more likely to perceive more structural constraints.

Most males currently hunted small and large game, whereas females predominately hunted large game only. Considering most males and approximately half of the females in my study started hunting small game, it appears that participation in that activity decreases as a hunter becomes more experienced. Additionally, my study suggests individuals are not learning to hunt small game after they have learned to hunt large game. McFarlane et al. (2003) suggests females are less committed to hunting than males, but my findings seem to contradict theirs as more females than males commented on future hunting plans. Comments from females about future hunts may be related to fewer years of experience compared to males (i.e., males may have already had those experiences).

Females are more likely than males to have mutualism or animal rights value orientations (Bright, Manfredo, & Fulton, 2000; Teel & Manfredo, 2009; Vaske, Jacobs, & Sijtsma, 2011). Indeed, concern for animal welfare was documented among female interviewees, as they discussed fair chase and minimizing chances of wounding animals, but was not discussed by males. Females also discussed the need to practice safety when afield, but males did not. My findings are similar to others who have also documented females being more concerned with personal safety when participating in leisure activities than males (e.g., Coble, Selin, & Erickson, 2003; Johnson, Bowker, & Cordell, 2001; Lee, Graefe, & Li, 2007).

Although differences existed in the types of animals that males and females started hunting and currently hunt, differences between genders were not as great for the types of species hunters preferred to hunt. Additionally, the reasons for favoring a specific type of hunting did not differ between genders. Time spent and activities to prepare for the hunting

season were similar between the genders and included scouting to learn wildlife movements and practicing shooting. Similarities also existed in method of take used by male and female hunters and taking hunting trips outside of Illinois. Males and females predominately hunted on private land owned by themselves, family, or friends.

Males and females each discussed a lapse in their hunting participation, but reasons differed between genders. Males suspended participation for a variety of reasons, whereas females discontinued participation due to responsibilities related to childrearing. Indeed, numerous studies have documented a reduction in female leisure participation due to roles within the family structure (e.g., Henderson & Allen, 1991; Shaw, 1994; Thompson, 1995). Brown, Lee, Mishra, and Bauman (2000) suggest women without children participate in leisure more often than mothers of the same age. Applegate (1977) suggests that hunting lapses were uncommon (9%), but multiple females and some males in my study commented on temporarily dropping out of hunting and females had longer periods of discontinuity than males. Males reported decreased hunting frequency due to health and age, but females did not report this same decrease. Perhaps this difference is due to males comparing their current hunting frequency to that of their youth or young adulthood. Females begin hunting at a later age and have fewer years of hunting participation, so it is possible that a change in hunting frequency due to health and age is less detectable among them.

Half of the interviewees identified themselves as hunters, whereas the remaining interviewees perceived it to be part of their identity. Males were more likely to comment on hunting teaching them to appreciate nature, whereas females commented on participating in hunting as a way to challenging gender roles and helping to encourage other women to try hunting. Some women also commented that hunting made them feel more self-sufficient because

they found a way to participate in the sport without depending on assistance from males. Specifically, one woman mentioned that she enjoyed hunting turkey more than deer because she can bring a harvested turkey out of the field alone, but she cannot do that with a deer.

### **Influence of Others**

Traditions and social norms of hunting cultures are largely taught to youths by a father or other male family member (Bissell et al., 1998; Boglioli, 2009; Purdy et al., 1989; Shaw & Gilbert, 1974). Similarly, interviewed males primarily learned to hunt from their fathers and uncles and discussed their hunting experiences in terms of tradition shared with family members. Some males discussed learning from male friends or on their own, but commented that they learned in this manner because their father did not hunt or did not hunt a certain type of game. In contrast to male hunters, females are often motivated to start hunting as a way to connect with their spouse or spend time with their family (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008). Females in this study reported learning to hunt from their significant other, father, or son. Moreover, only females commented on learning to hunt from their significant others or sons. Females were also the only group to discuss an appreciation of the people who taught and encouraged them to hunt, attributing to these individuals their choice to hunt and continue hunting.

All interviewees identified males in their family who hunted and approximately half identified female family members. More male interviewees reported having males in their family from older generations who hunted than female interviewees, and males were more likely to state that their father hunted. Three out of four males reported having fathers who hunted, which supports previous studies that document the importance of a father figure who hunts for

individuals learning the sport (e.g., Bissell et al., 1998; Boglioli, 2009; Purdy et al., 1989; Shaw & Gilbert, 1974). Females reported more hunters in their family from younger generations than males, specifically younger females, suggesting that women are helping to promote hunter recruitment through mentorship or encouragement. Females and adolescents are more influenced by perceived or actual input from social groups, and approval from social groups can at times determine one's choice to participate (Culp, 1998; Henderson, 1994; Hurtes, 2002; Thomas & Peterson, 1993). Therefore, female participation in traditionally masculine recreation activities such as hunting may help to recruit and retain other females and youths into the activity (Boglioli, 2009; McFarlane et al., 2003; Shaw & Gilbert, 1974).

More females than males reported having significant others who hunted, and previous research suggests females are more likely to select leisure activities that reflect those of their spouse or other family members (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008; Henderson, 1996; Henderson & Allen, 1991). Additionally, support from an individual's spouse may increase an individual's participation or commitment to recreation activities (Brown, Brown, Miller, & Hansen, 2001; Yair, 1990). Support can take the form of encouragement, empathy, or participation (Burke & Weir, 1982; Goff, 1997; Skinner, 1982; Stebbins, 1992), and may be more important for females than males (Brown et al., 2001). Indeed, some females reported sharing hunting with their spouse; however, of interviewees reporting on spouses who did not hunt, males commented on their spouse being supportive more than females.

Males and females predominately hunted with male family members. Males also hunted with male friends, whereas females reported hunting with female friends. Similar to support from one's spouse, support from one's social group may influence recreation habits. Positive exchanges with social group members, such as mentoring, helping with scouting trips, or

information sharing has been shown to increase participation (Covelli, 2011; Enck, Decker, & Brown, 2000). The role of social group support may be of greater importance for females who participate in activities that are traditionally considered masculine, such as hunting, than for those who participate in feminine or gender-neutral leisure activities (Covelli, 2011; Hurtes, 2002). Thus, female hunters may be seeking out social relationships with other female hunters, whereas males do not seek these types of relationships. Indeed, one woman discussed connecting with a group of women who participate in female-only hunting trips.

Most hunters reported teaching younger generations to hunt and the importance to teach them about natural resources. Daryl suggested that if you “Take your kids hunting and you won’t have to hunt for your kids.” Males primarily taught their children and significant others to hunt, whereas females mentored their daughters, granddaughters, and grandsons. Females also commented on their role in providing encouragement for their children and grandchildren to try hunting. Andrea stated that her role in mentoring her daughter was to “Encourage her to think it is fun and an ok thing to do; you should not be afraid of guns.”

Males were more likely to mentor family members who were one generation younger, whereas females were more likely to teach family members who were two generations younger. Males hunted, on average, 28 years longer than females, so it is possible that females were not hunting at the time their children learned to hunt. Indeed, some females commented on postponing their leisure when their children were younger in favor waiting until their children moved out of the home. Eliza commented on her interest in learning to hunt when her children were younger, but she only began hunting two years ago because she thought it was more important for her children to spend time hunting with their father. Additionally, some women perceived lack of experience, and thus mentoring abilities, when their children were learning to

hunt. Females commented on their significant others being a better mentor since they had been hunting longer and were more experienced. Women may take longer to develop confidence in their hunting abilities, which may explain why females are mentoring their grandchildren instead of their children.

### **Conclusion**

Hunting began at different ages for men and women and species hunted also differed. Females were more likely to report lapses in hunting due to childrearing, whereas males commented decline in hunting frequency due to health and age. Males account for the majority of hunters (89%) nationwide; however, female participation is increasing (USDI, 2012b). Studies that do not stratify by gender can fail to interpret how female hunters enter the sport and the potential for these hunters to cease participation.

Females interviewed in this study remarked on ways that hunting can help to challenge gender roles. They learned to hunt from their significant others, suggesting the importance of spousal support in their decision to hunt. Social support may also be important in female hunter retention, as females commented more than males on knowing and hunting with other females. Women also were more likely to report mentoring and encouraging other females to hunt, which suggests that they are providing the support as well as receiving it.

Female participation in hunting appeared to be most related to the exposure that they had to the sport and specific types of hunting. Indeed, females commented on a lack of interest towards hunting before they were exposed to the sport. Moreover, women were not hunting small game as much as males, which may be related to a lack of exposure if males initiating them to hunting are no longer participating in small game hunting. Women commented on the

empowerment hunting gave to them and the feeling of self-sufficiency associated with hunting without relying on the help of a man. One woman mentioned that she preferred hunting turkey because it allowed her to bring her game out of the field alone. Exposing women to small game hunting may provide them with the opportunity to foster growth as a self-sufficient hunter as they can remove their own game.

Female-only programs such as Women in the Outdoors, Becoming an Outdoors Woman, and Ladies in Camo provide opportunities to females to learn shooting and hunting skills, but these programs may only be relevant to a subset of females. Females are more likely to participate in leisure activities that are family-oriented (e.g., Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008), so programs that emphasize hunting as a family activity may be a way to recruit and retain females. The IDNR has developed wingshooting events to promote female and youth inclusion in shooting sports, but developing family shooting and hunting programs may also be beneficial. Additionally, females discussed waiting to learn how to hunt since they did not want to interfere with their children learning and spending time hunting with their spouse. Programs should emphasize that the inclusion of the whole family in hunting does not decrease the experience of youths, but rather has the potential to improve the experience.

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PERCEIVED CONSTRAINTS, MOTIVATIONS, SELF-EFFICACY, SOCIAL SUPPORT,  
AND CONSTRAINT NEGOTIATION ABILITIES OF MALE AND FEMALE HUNTERS IN  
ILLINOIS

**Introduction**

Hunters provide substantial funding for natural resource conservation agencies through purchases of hunting licenses, hunting equipment, and memberships in conservation organizations (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007; Vrtiska, Gammonley, Naylor, & Raedeke, 2013), thus continued hunter participation is critical to maintain funding. Hunter participation decreased 11% nationally between 1991 and 2006 (USDI, 2012a); however, hunting participation increased 9% between 2006 and 2011 (USDI, 2012b). As this increase was only observed during one sampling period it may not be representative of the long-term trend of hunter participation. In contrast to overall hunting participation, female participation in hunting is increasing and mitigating the loss of male hunters (Bissell, Duda, & Young, 1998; Heberlein, Serup, & Ericsson, 2008; McFarlane, Watson, & Boxall, 2003; Ryan & Shaw, 2011). Female participation increased 1.1 to 1.5 million between 1991 and 2001, and the proportion of females in the hunting population increased from 8% to 11% (USDI, 1992; 2012a).

Participation in leisure activities, such as hunting, is determined by numerous psychological and physical factors. Some factors (e.g., constraints, perceived conflicts, negative past experiences) reduce participation, whereas others (e.g., motivations, constraint negotiation, social support) promote participation. Interactions occur between these factors, although a consensus as to how these factors interact does not exist (Alexandris, Tsorbatzondis, & Grouios,

2002; Carroll & Alexandris, 1997; Hubbard & Mannell, 2001; Schroeder, Fulton, Lawrence, & Cordts, 2012). Increasing our understanding of factors that increase, reduce, or inhibit hunting participation will assist natural resource managers in developing ways to recruit and retain hunters.

## **Gender and Leisure**

Early leisure studies have sought to subdivide populations by demographic variables, such as age, sex, family structure, and income level (Jackson & Henderson, 1995; Sky, 1994), but research showed that sex itself may not be a factor in leisure participation (Jackson & Henderson, 1995). Researchers emphasized the need to study effects of gender instead of sex within the theoretical construct of leisure studies (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994). Gender is the socially developed stereotypes of how each sex should behave (e.g., masculine v. feminine identities), which differs from biological sex of male or female (Culp, 1998; Jackson & Henderson, 1995). Inclusion of gender studies in leisure research encouraged researchers to determine the reasoning behind differences in leisure participation and preferences between sexes (Shaw, 1994; Sky, 1994).

Feminist theory assisted researchers in identifying the reasons behind the differences in leisure participation and preferences between the sexes (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994) and is focused on social change and justice for women (Henderson, Hodges, & Kivel, 2002). Literature on feminist theory emerged in response to the resurgence of the women's movement in the 1960s (Sky, 1994; Taylor, 1989). Feminist theory highlights the oppression, sexism, and patriarchy women face in male-dominated cultures (Sky, 1994); in other words, feminist theory evaluates societal constraints on women. Influence of feminist and gender theory

in leisure research has guided new perspectives in leisure constraints theory (Parry, 2005; Parry, Glover, & Shinen, 2005; Shaw, 1994; Sky, 1994) and has allowed researchers to better understand leisure participation by females and males (Henderson, 1996; Henderson & Hickerson, 2007).

### **Constraints**

Constraints can prohibit or limit participation in a leisure activity (Jackson, 1988; 2000; Jackson, Crawford, & Godbey, 1993; Wright, Drogin Rodgers, & Backman, 2001). Constraints have traditionally been categorized as intrapersonal, interpersonal, or structural. Intrapersonal constraints are related to an individual's physical or mental state (Crawford & Godbey, 1987). Interpersonal constraints are related to an individual's interactions with others (Crawford & Godbey, 1987). Lastly, structural constraints are described as limitations that are not based on social interactions, such as perceived lack of finances, time, or opportunity (Crawford & Godbey, 1987).

In recent studies of hunters, researchers have begun to categorize constraints as personal or situational (e.g., Covelli, 2011; Miller & Vaske, 2003; Schroeder et al., 2012). Personal constraints are those more likely to be influenced by the individual and can be intrapersonal, interpersonal, or structural (e.g., lack of interest, hunting partner, finances), whereas situational constraints are more likely to be controlled or partially controlled by agencies (e.g., not enough game, season too short, sites too crowded). The personal and situational classification scheme appears to hold the greatest value for hunting studies, as it can be used to evaluate the relationship between the individual and natural resource managers.

In addition to constraints perceived by the overall population, gender constraints can also influence leisure participation and preference. Gender constraints are encountered as a result of a person's perception of gender roles (Culp, 1998). Gender constraints can be intrapersonal (e.g., a male not participating in an activity he perceives as feminine), interpersonal (e.g., female peer pressure to participate in feminine activities rather than masculine ones), or structural (e.g., single-sex organizations).

Constraints can differ within and between gender groups (Jackson & Henderson, 1995); however, females generally encounter more constraints than males (e.g., Jackson & Henderson, 1995; Shaw, 1994; Wesely & Gaarder, 2004). Jackson and Henderson (1995) found males were more likely to report structural constraints (e.g., lack of time due to work, equipment cost), whereas females encountered more intrapersonal and interpersonal constraints (i.e., perceptions of physical inadequacies, lack of time due to family care, unease with social encounters). Notably, some constraints identified by females in Jackson and Henderson's (1995) study allude to a female's dependency on others to foster participation in leisure activities (i.e., "don't know where to participate," "don't know where to learn"). Among females interested in hunting, constraints included fear of hunting alone and a lack of training or skills (Martin & Miller, 2008; Thomas & Peterson, 1993; Wesely & Gaarder, 2004). Indeed, studies of female hunters highlighted the importance of a woman's spouse serving as a hunting partner and mentor (e.g., Adams & Steen, 1997; Heberlein et al., 2008).

In addition to encountering more constraints than males, females also spend less time participating in leisure activities than males (Jackson & Henderson, 1995; Shaw, 1994). Henderson (1996) identified that time for personal leisure is reduced as a woman undertakes more roles in her life (i.e., wife, mother, full-time employee). The ethic of care and familism

ideologies are closely related and seek to explain the reduction in female leisure participation (Henderson & Allen, 1991; Shaw, 1994; Strang, 2001). The ethic of care ideology is more prevalent among females than males and refers to putting others' needs for comfort and assistance before one's own needs, which is linked to a reduced sense of entitlement and guilt for participation in personal leisure pursuits (Henderson & Allen, 1991; Henderson & Dialeschki, 1991; Peters & Raaijmakers, 1998; Shaw, 1994; Strang, 2001). Familism describes the roles of individuals within the family structure, suggesting that the female's role as the primary caregiver in the family can restrict time for leisure activities (Henderson & Allen, 1991; Shaw, 1994). Thompson (1995) suggested females report more constraints to leisure time because of family responsibilities than men. Brown, Lee, Mishra, and Bauman (2000) suggested women without children participate in leisure more than mothers of the same age.

## **Motivations**

Motivations are the drivers behind an individual's choice to participate in recreation activities and are related to the benefits that are sought (Manfredo, Driver, & Tarrent, 1996; Kleiber, Walker, & Mannell, 2011; Pearce & Lee, 2005). Unlike constraints that reduce or inhibit participation, motivations promote participation in a leisure activity (Manfredo et al., 1996; Pearce & Lee, 2005; Wright et al., 2001). Motivation can be intrinsic (i.e., participating in the activity is rewarding) or extrinsic (i.e., the activity yields other benefits, such as awards or monetary gain; Kleiber et al., 2011). Deci and Ryan (1985) suggested when intrinsic and extrinsic motivations are lacking, but the individual continues to participate, that individual experiences amotivation. Motivation to participate in leisure activities can be shared by participants, but the influence of the motivation may vary for each individual (Graefe, Thapa,

Confer, & Absher, 2000; Pearce & Lee, 2005). Additionally, motivations for specific leisure activities have remained constant within the population (Graefe et al., 2000; Manfredi et al., 1996); however, motivations for an individual may be change over time (Manfredi et al., 1996).

Motivations for consumptive-recreation activities are often measured using the categorization developed by Decker, Brown, and Siemer (2001); however, these activities are largely-male dominated and may not capture motivations among female hunters. The ethic of care ideology may influence motivations, as putting the needs of others first may shape leisure motivations to match those of a spouse or other family member (Henderson, 1996; Henderson & Allen, 1991). Additionally, studies have documented spending time with a spouse or family members as the primary motivation for female hunters (e.g., Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008). Evaluations of motivations for female hunters, however, have been done using close-ended questions and may not be collecting all the information that a respondent has to offer on the subject. Using open-ended questions allows respondents to provide feedback in greater detail than close-ended questions, and thus a study utilizing open-ended questions is warranted to provide researchers and managers to have a better understanding of female hunters.

### **Self-efficacy**

Self-efficacy is the belief one has in himself or herself to overcome challenges and negotiate constraints through self-confidence (Bandura, 1982; Loucks-Atkinson & Mannell, 2007). Given that self-efficacy is a belief, standardized methods across leisure activities to measure self-efficacy do not exist as beliefs are linked to specific behaviors (Loucks-Atkinson & Mannell, 2007). Covelli (2011) developed a measure for self-efficacy among hunters using three categories: (a) skill confidence, (b) support confidence, and (c) fear confidence. Given the

limited knowledge on self-efficacy in the hunting population, exploring hunter's perceptions through open-ended questions is necessary to refine future studies that feature close-ended questions.

### **Social Support**

Input from social groups can be a source of interpersonal constraints (Culp, 1998; Henderson, 1994; Hurtes, 2002; Thomas & Peterson, 1993) or help to foster participation (Covelli, 2011; Enck, Decker, & Brown, 2000). Social support consists of positive input from an individual's social group. For hunters, this can take form as mentoring, helping with scouting hunting locations, or sharing information (Covelli, 2011; Enck et al., 2000). Social support may be of greater importance for females participating in masculine activities, such as hunting, than for females participating in feminine or gender-neutral leisure activities (Covelli, 2011; Hurtes, 2002).

Similarly, one can receive emotional support from their significant other, including communication, encouragement, and empathy (Burke & Weir, 1982; Goff, 1997; Skinner, 1982; Stebbins, 1992). Support from one's spouse or family can take the form of participation in leisure activities (Stebbins, 1992), whereas a lack of support may cause conflicts and influence participation (Goff, 1997; Yair, 1990).

### **Constraint Negotiation**

Individuals can use constraint negotiation strategies to overcome constraints when they are perceived to exist (Hubbard & Mannell, 2001; Jackson, 2000; Jackson et al., 1993; Scott, 1991). Motivations, self-efficacy, and social support have been shown to have a positive

relationship with constraint negotiation (Covelli, 2011; Loucks-Atkinson & Mannell, 2007; Shaw, 1994; White, 2010), whereas constraints are negatively related (Hubbard & Mannell, 2001; Jackson et al., 1993; Loucks-Atkinson & Mannell, 2007; Son, Mowen, & Kerstetter, 2008). Indeed, individuals who are more motivated and perceive fewer constraints are more likely to overcome their constraints than those with little motivation that perceive many constraints.

Constraint negotiation strategies can be cognitive (e.g., “ignoring the problem,” “just putting up with it”) or behavioral (e.g., managing time or finances, obtaining skills or training). Research shows behavioral negotiation strategies are used more often than cognitive ones (Jackson & Rucks, 1995). Wilhelm Stanis, Schneider, and Russell (2009) included cognitive strategies when evaluating negotiation strategies of park visitors, but many studies of constraint negotiation focus exclusively on behavioral strategies (e.g., Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son, Kerstetter, & Mowen, 2008; Son, Mowen, & Kerstetter, 2008). The majority of constraint negotiation studies evaluated the four behavioral negotiation categories developed by Hubbard and Mannell (2001): (a) time management, (b) skill acquisition, (c) interpersonal coordination, and (d) financial management, but some researchers have modified these categories to fit their studies (e.g., Covelli, 2011; Loucks-Atkinson and Mannell, 2007; Wilhelm Stanis et al., 2009).

## **Objective**

Lack of qualitative research of hunters’ (especially female hunters’) perceived constraints, motivations, self-efficacy, social support, and constraint negotiation abilities necessitates assessment to better understand hunters’ perception of factors that influence hunting

participation. My objective is to qualitatively evaluate gender differences between perceived (a) constraints, (b) motivations, (c) self-efficacy, (d) social support, and (e) constraint negotiation.

### **Methods**

During the summer of 2013, I conducted semi-structured interviews of 2012-13 Illinois hunting license purchasers (Appendix B). I chose semi-structured interviews because they provide flexibility to individualize the interview and allowed me to obtain a detailed account of the interviewee's hunting experience (Wengraf, 2001). Among hunters, individuals develop their own meaning of hunting and reasons for participating. I used a constructivism epistemology with an interpretivist perspective when developing my study because it fits best with the hunting experience. Constructivism epistemology suggests an understanding that there is no universal truth; rather individuals develop their own personal understandings and perceptions of the truth (Crotty, 1998). The interpretivist perspective works well with the constructivism epistemology because it assists the researcher in developing an understanding of how a person develops his or her perception of reality (Crotty, 1998).

I wanted to interview individuals with diverse hunting backgrounds, but the 2012-13 hunting license database provided only each individual's contact information. Therefore, I conducted a brief telephone survey to obtain more information about each hunter (Chapter 2) and selected a purposive sample of individuals who represented different age, gender, hunting background, and other demographic factors for interviews (Oliver, 2006). Ninety-nine males and 59 females responded to the telephone survey and expressed an interest to participate in an in-person interview. To control for differences in responses based on location within the state, I stratified my sample by the five Illinois Department of Natural Resources (IDNR) administrative

regions (Figure 4.1). My data became saturated (i.e., new responses were not generated by additional participants; Creswell, 2007; Marshall, 1996) after interviewing 12 males and 15 females. Background information on interviewees can be found in Table 4.1. I conducted interviews in-person at an interviewee's home or a public location (e.g., coffee shop, fast food restaurant), depending on interviewee's preference. Interviews took an average of 90 minutes.

I analyzed the interviews using symbolic interactionism methodology because this methodology addresses how individuals interact with things that they assign their own meaning assigned to it and meanings can be modified based on interactions with others in their social group (Crotty, 1998). Using an inductive approach, I categorized statements into general themes and subthemes. General themes primarily followed the theme of interview questions, but other themes emerged while talking with interviewees. General themes were divided into subthemes to describe the data at a more detailed level (Table 5.1).

Table 5.1. General themes and subthemes emerged from interview responses.

General theme	Subtheme I	Subtheme II	Subtheme III
Constraints	Personal	Family structure Financial Health Other leisure Postponing leisure Time	Single parent  Guilt Family Other commitments Work
	Situational	Property  Season	Access Crowding Length Weather Wildlife
Motivation	Extrinsic	Food Family Trophy harvest Resistance	Gender roles
	Intrinsic	Spiritual Challenge Enjoyment Leisure Outdoors Relaxation Solitude Wildlife viewing	
Negotiation	Behavioral	Financial management Health management	ATV Crossbow Ground blind
		Interpersonal coordination  Skill acquisition Time management	Access crowding  Family responsibilities Prioritization Season structure Vacation Work schedule
	Cognitive		

Table 5.1 (continued). General themes and subthemes emerged from interview responses.

General theme	Subtheme I	Subtheme II	Subtheme III
Self-efficacy	At desired level		
	Confidence	Development Fear Gained	Hunting alone Hunting alone Shooting abilities
	Improvement	Lacking Pride Self-sufficiency Always can Skills	Assistance Method of take Shooting abilities Wildlife calling
Social	Bonding	Family Friends	
	Support	Against	General Female hunters Childcare assistance Consumption Encouragement Equipment loan Household assistance
		For	Given Not received
		Spousal	Provide to others
	Encouragement		

## Results

### Constraints to Hunting

Male and female hunters commented more often on personal constraints than situational constraints. Interviewees mentioned current and past constraints they experienced. I selected to present current and past constraints together as they provided an understanding of the constraints experienced through an individual's lifetime. Males primarily discussed personal constraints associated with work schedules, declining health, and family life. Daryl, a hunter of 31 years,

stated “Family comes first,” and others commented on sharing childcare responsibilities with their wives as their work schedules had more flexibility than their wives’. Males also mentioned other leisure activities taking precedence over hunting, finances needed for purchasing equipment or taking hunting trips as a constraint, and other commitments in their life that limited their time for hunting.

In contrast to males, most females commented on personal constraints associated with family life and they discussed these constraints in more detail. Of those who remarked on family life, most commented on raising young children, but some also discussed their acceptance of limited or postponed hunting in order to spend more time with their family. For instance, Eliza, a hunter of two years, wanted her husband and sons to bond and develop memories of hunting together, so she postponed learning to hunt knowing there would be an opportunity after they left to learn. Similarly, Sophia said, “Childcare is paramount since there is only a short time before college,” so she wanted her children to enjoy their childhood. Three females commented on responsibilities for babysitting family members, while two discussed needing to obtain babysitters if they wanted to hunt. Moreover, Maggie, a hunter of 18 years, expressed her guilt in leaving her son with a babysitter when participating in any leisure activities, stating “If I want to do something fun, it should be with him.” Two females mentioned constraints associated with being a single parent limited their time for hunting. Females also commented that work schedules and participating in other leisure activities were constraining their hunting participation. Other constraints experienced by females when trying to participate in hunting included other commitments, health problems, and finances.

Situational constraints discussed by interviewees related to hunting property and season. Males and females commented on access to private land, stating that is difficult to find

“Available land at a reasonable cost” (Bob, a hunter of 42 years) and landowners make hunters sign liability waivers before gaining access to their property (Maggie). Hunters also discussed constraints associated with hunting on public lands. One male and two females commented on crowding at public hunting areas, especially during deer season. Hunters remarking on constraints related to hunting period, cited season scheduling, weather, and wildlife movements. One male and two females also mentioned that season length was too short during deer season and changes in waterfowl season regulations were difficult to understand. In relation to season dates, males and females commented on weather being too cold during some hunting seasons for their preference and a lack of deer movements during the late winter and special chronic wasting disease (CWD) hunting seasons.

### **Motivations to Hunt**

Hunters commented on intrinsic and extrinsic motivations for hunting. The primary intrinsic motivation mentioned by male interviewees was the challenge associated with hunting. For example, Abraham, a hunter of 46 years, stated, “They [deer] can smell and hear so well... [you are] trying to outwit one of nature’s greatest survivors.” Male hunters also remarked on their motivation to hunt as a way to spend time in the outdoors, watch the sun rise, and see the plants and animals. Joe, a hunter of 12 years, summarized many of the other hunter’s comments by stating that he “Would rather be hunting than sitting in a house.” Additionally, males stated that their motivation was based on the enjoyment they get from hunting. Dale, a hunter of 50 years, stated “Once I get started, I don’t want to quit. I just love it [hunting] that’s all.” Lastly, males discussed their motivation to hunt as a way to spend their leisure time, relax, enjoy

solitude, and view wildlife. Dale said, “I just love it... [hunting] takes the stress out of life,” while Abraham added that when you are alone in the woods “You can do a lot of thinking.”

Females primarily stated that their intrinsic motivation for hunting was related to spending time in the outdoors. Carol, a hunter of 30 years, said, “I like being out, you never know what you are going to see... it always seems like we [her significant other and herself] see something new, something different.” More than half of females mentioned wildlife viewing as a motivation for hunting. Many females have also discussed the challenge of hunting and harvesting wildlife, enjoyment from spending time in nature, relaxation, and solitude as motivations for hunting.

Most males mentioned that their extrinsic motivation was food for themselves or family members as the animals they harvest “taste good” (Glenn, a hunter of 20 years, and Phillip, a hunter of 25 years). Males also commented on spending time with family members and harvesting trophy animals as motivations for hunting. The most often noted extrinsic motivations for hunting discussed by females included spending time with family members and harvesting food. Andrea, a hunter of 10 years, said, “In our house it [hunting] is a family sport” and Patricia, a hunter of six years, stated that it is “Special to spend time with dad since he loves it [hunting] so much.” Females also discussed wild game comprising the majority of the food their families consumed. For instance, Penny, a hunter of 10 years, stated, “We eat more deer than anything else” and went on to comment that her family preferred to eat venison since the meat has less fat and is healthier. Females also commented on resistance to gender roles as an extrinsic motivation for hunting. Amy, a hunter of 35 years, stated, “Don’t tell me I can’t do something. If I want to do it I will.” Three females were motivated to harvest trophy animals. Additionally, Carol, a hunter of 30 years, commented on the spiritual connection she felt while hunting. In her own

words “I feel closer to God when I am out in the woods... being out there, me and God together.”

### **Self-efficacy and Hunting**

Seven males felt they were where they wanted to be as a hunter, whereas only two of females stated this. For instance, Carol said, “If my [hunting] skills never changed, I would be just as happy.” Most males and females commented on improving their hunting abilities, suggesting that there is always room for improvement with one’s hunting abilities. Penny stated that “You never stop learning, you will make mistakes and you can learn from them.” Similarly, Daryl commented, “There is always room for improvement, any hunter who suggests they are at the top of their game is delusional... I never want to be maxed out, I always want to see improvement.”

Interviewees also discussed how they have developed their hunting skills, such as practicing shooting, learning wildlife calls, and becoming knowledgeable about the land and wildlife movements. Dale, a hunter of 50 years, stated that he was “Working to improve methods... I like to be the best I can be.” In terms of skills they would like to improve, hunters discussed a desire to improve wildlife calling abilities and shooting skills. Interviewees also commented on improving their familiarity with different types of firearms or bows through shooting practice or trying to use a different method of take. Many of the interviewees complained, however, of the difficulty in finding time to improve or learn new skills. Additionally, one male and female remarked on needing to find someone to assist them in developing their abilities.

Most females commented on their confidence in themselves and their abilities when hunting, but no males noted their confidence. Of those remarking on confidence, most discussed the confidence they gained from hunting, such as the confidence to hunt alone and to handle and shoot firearms. Females also discussed their fears associated with hunting. Two females commented on their fear of hunting alone since they did not feel capable, one was fearful of handguns since she had minimal exposure to firearms, and one was fearful of coyotes since she previously had a negative experience with one. Females also discussed the trust in their skills and development of their self-confidence, whereas few females commented on their lack of confidence in regards to their shooting abilities. Additionally, some females commented on their confidence in their abilities to be self-sufficient and did not need to rely on males to assist them, and one female discussed being proud of herself for the accomplishments she made while hunting.

Three women discussed their reluctance of certain aspects of hunting. Two women commented that they did not think that they could harvest a deer. Tara, first year hunter, said her reluctance stemmed from being an “animal lover,” whereas Andrea, a hunter of 10 years, only hunted farm-raised pheasants and was unsure about harvesting a mammal. As she mentioned, “I don’t want to shoot Bambi.” Eliza, a hunter of two years, commented on her unwillingness to handle firearms and thus limited herself to bow hunting.

### **Support for Hunting**

All interviewees commented on other individuals in their lives being supportive of their choice to hunt. Interviewees discussed hunting as being part of their community’s culture, family members helping with childcare, and others loaning them equipment. Women mentioned family

members and friends encouraging them to purchase equipment and start hunting, but few men discussed this form of support. Sophia stated that it is “Nice to have a supportive husband, without that I probably would not have pushed.” Females also mentioned wanting to share an activity with their significant other or that their significant other helped them create time to hunt, but no males remarked on this. Women discussed the importance of sharing leisure activities as a way to bond with their spouse and their spouses increasing assistance in the home to allow them to make time for hunting. Some interviewees reported having spouses who did not hunt. Men reported that their non-hunting spouses were supportive of their choice to hunt. Daryl elaborated saying that his wife was a “city girl” and the “Closest she wants to be is seeing me put meat in the freezer.” When talking of his wife, Glenn stated, “She is not interested in hunting, but she is not unsupportive, if that makes sense... [she is just] not into guns or cleaning animals... [I am] kind of on my own.” Females mentioned that non-hunting spouses were uninterested in the sport. Mary, a hunter of five years, mentioned that her spouse never made an effort to try hunting with her, while Amy said it was “Not his [her ex-husband’s] cup of tea.”

Approximately half of the interviewees commented on assistance they received from others in relation to hunting or activities associated with hunting. All males and some females discussed family and friends assisting them in the consumption of their harvest. Women noted that others assisted them in the harvest and retrieval of their game, but no men commented on this form of aid. Additionally, females mentioned others helped to reduce their responsibilities by helping in childcare or cooking meals at deer camp so they could spend more time hunting. Some men and women said that others would help them clean their harvest. Lastly, women also commented on receiving help with building hunting blinds before the season.

Females commented on providing encouragement to others who were interested in hunting; however, males did not discuss providing encouragement. Females talked of exposing others to hunting by serving wild game at dinner parties and encouraging younger generations, especially females, to try hunting. Andrea stated that she provided an environment in her home to “Encourage her [her daughter] to think it [hunting] is fun and an ok think to do.”

Males and females additionally commented on spending time and bonding with others while hunting and participating in associated activities. Males commented more often on bonding with family members, whereas females talked more often about bonding with friends. Mary said that it is “More fun to hunt with somebody rather than by yourself” and Andrea stated that hunting was a “Great way to spend time with buddies.” Sophia mentioned that she and her husband hosted a deer camp at their home, which she described as “An organized 3-day festival in the barn for the neighborhood,” and invited hunters and non-hunters to share meals.

Females commented on individuals in their life who did not support their choice to hunt, but only one male commented on a lack of support. Tara reported that she was asked by others “How could you kill Bambi,” while Sophia discussed a male neighbor who voiced his disagreement with females hunting. According to Sophia, this man felt women could not shoot to kill and thus only wounded wildlife. Sophia was most aggravated by these comments as he was a local hunter safety instructor. Abraham, a hunter of 46 years, was the only male who commented on a lack of support, stating that his father was a workaholic and thought hunting was a waste of time and that his daughter was against hunting.

## **Negotiation of Hunting Constraints**

Interviewees commented on using cognitive negotiation strategies, stating that they did not need to negotiate their constraints as some things were “Just part of life.” For instance, Rick, a hunter of 25 years, summarized other hunters’ comments by saying, “It’s just one of those things where there are other priorities.”

Interviewees also reported health management, interpersonal coordination, skill acquisition, financial management, and time management behavioral negotiation strategies. Males said they negotiated constraints due to health problems by hunting from ground blinds or by using ATVs to get to their blind. Jim, a 69 year old, commented on developing skills to use a crossbow, which allowed him to negotiate health constraints. As he stated, “I couldn’t archery hunt if I did not use a crossbow.” Few males and females discussed interpersonal coordination negotiation strategies, saying that they would contact friends and landowners to ensure they had access to private hunting locations. Additionally, one female commented on hunting certain days to avoid crowding from other hunters. One man and one woman commented on negotiating finances by saving money to offset travel costs associated with hunting trips.

Prioritization was the most often cited time management negotiation strategy for males and females. For instance, Phillip said, “Sometimes you just have to say heck with everything else and just go... my wife understands that once the season starts, I don’t have time for anything else.” Carol discussed her prioritization of hunting, stating, “When the season is in, if you really like to hunt you should do it then. You can always go shopping or socialize with friends the rest of the year.”

Both men and women commented on rearranging their work responsibilities to allow for hunting. These interviewees discussed saving vacation time during the year so it can be used

during the hunting season. Women commented on negotiating their family responsibilities to create time to participate in hunting, saying that they would ask family members to watch their children so they could spend time hunting. Interviewees also commented that the flexibility of hunting hours and hunting season structure helped to negotiate their constraints related to time allocation.

## **Discussion**

### **Constraints to Hunting**

All males and females reported constraints they perceived to limit their participation in hunting, but perceived constraints differed by gender. Similar to Jackson and Henderson's (1995) findings, females interviewed in this study were more likely to report intrapersonal and interpersonal constraints whereas males commented more on structural constraints. Previous studies have documented females perceiving constraints associated with fear of hunting alone and a lack of training or skills (cf, Martin & Miller, 2008; Thomas & Peterson, 1993; Wesely & Gaarder, 2004). Females interviewed in my study did not comment on these constraints; however, I interviewed individuals who were already hunting, so it is possible they had already negotiated these constraints. Evaluating individuals who have expressed interest in hunting (e.g., participated in a hunting education course), but did not begin hunting may provide an understanding of why some individuals are not able to negotiate hunting constraints.

Men commented more often on health and work constraints whereas women commented more on family constraints. Males discussed a decline in their hunting frequency as a result of health and age (Chapter 3), so it is unsurprising that they perceived their health as a constraint to

their hunting participation. Women are typically the primary caregiver, and as a female undertakes more roles in her life (i.e., wife, mother, full-time employee), her time for leisure decreases (Henderson, 1996; Henderson & Allen, 1991; Shaw, 1994). Females commented on constraints associated family life more often than males, which is similar to the findings of Thompson (1995). Moreover, the types of constraints associated with family care differed between genders. Males commented on limiting their participation in hunting to share childcare responsibilities with their spouse. In contrast, females commented in greater detail and on more topics related to family constraints than males, and their constraints could be attributed to ethic of care and familism. Women discussed raising children, helping family members with childcare, postponing leisure to allow children to enjoy theirs, and constraints associated with being a single parent. Women also commented on delaying personal opportunities and expressed guilt for taking time to hunt, which is similar to other studies of females' participation in leisure activities (cf, Henderson & Dialeschki, 1991; Peters & Raaijmakers, 1998; Shaw, 1994; Strang, 2001)

Males and females perceived more personal than situational constraints. Similar to Crawford, Jackson, and Godbey's (1991) hierarchical constraints model that suggested individuals perceive intrapersonal constraints before interpersonal and structural constraints, it appears hunters perceived personal constraints before situational constraints. Personal constraints are controlled by the individual, whereas situational constraints are controlled or partially controlled by outside factors, so individuals may need to negotiate personal constraints before they encounter situational ones. Additionally, most interviewees had access to private land for hunting (Chapter 3), so those individuals would be less likely to experience situational constraints than individuals who hunted on public land.

## **Motivations to Hunt**

Males and females expressed numerous intrinsic motivations; however, greater proportions of females than males reported intrinsic motivations for hunting. The primary extrinsic motivation for males was harvesting food, but this topic was not discussed as much by females. Additionally, males and females were similarly motivated to hunt as a way to harvest a trophy animal. Previous studies suggested females have a greater interest in hunting for food and less interest in trophy hunting than males (Adams & Steen, 1997; Duda, 2001; Heberlein et al., 2008; Purdy & Decker, 1986); however, interviewees in my study did not follow this pattern. Studies of female hunters have documented that they are motivated to spend time with their spouses and family (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008), and I found similar results. Females also commented on their motivation to hunt as a way to resist gender roles. Studies of leisure participation have identified resistance as a motivation (Henderson & Hickerson, 2007; Parry, 2005; Parry et al., 2005; Shaw, 1994; 2001); however, this has not been discussed in studies of hunters.

## **Self-efficacy and Hunting**

Covelli (2011) developed a measure of self-efficacy focusing on three types of confidence categories (i.e., skill, support, fear). Interviewees in this study discussed these and additional categories related to confidence and self-efficacy related to their hunting abilities. Covelli's (2011) "support confidence" category is closely related to social support and focused on the ability one has to connect with others who hunt, but comments by interviewees did not lend support for this category. Instead, interviewees commenting on social relationships commented on their enjoyment of bonding with family and friends, but did not relate these

relationships to their efficacy. Additionally, only females commented on their confidence in relation to hunting. Comments included discussions of the confidence they gained in general by choosing to hunt, development of their skills and confidence, fears associated with hunting, and where they felt their confidence was lacking. Females also discussed how hunting made them feel self-sufficient and the pride they had for themselves for developing hunting abilities. Additionally, females commented on their reluctance towards specific components of hunting, such as hunting certain species or handling firearms.

### **Support for Hunting**

All interviewees reported others supporting their choice to hunt, but nearly half of the females interviewed commented that they knew of at least one individual who disagreed with them hunting. Negative input from social groups can be a source of interpersonal constraints (Culp, 1998; Henderson, 1994; Hurtes, 2002; Thomas & Peterson, 1993); however, females interviewed did not report interactions with others as constraining. Perhaps females interviewed were less influenced by negative input because they were already hunting and had accepted the potential for such comments as they participate in a masculine activity. Indeed, females commented on ignoring negative comments or proving those negative individuals wrong, which is related to comments on motivation to resist gender roles.

Similar to Covelli (2011), interviewees discussed the assistance they received from others when afield and preparing for hunting. However, interviewing hunters yielded different results from mail surveys (e.g., Covelli, 2011). Specifically, females commented on receiving assistance in managing responsibilities such as childcare and food preparation from others. Mothers participated in leisure less than females without children as they were constrained by childcare

and household responsibilities (Brown, Brown, Miller, & Hansen, 2001; Brown et al., 2000). Brown et al. (2001) suggested that social support in the form of childcare is most needed by mothers, and I suggest future evaluations of social support for hunters include questions about assistance with responsibilities.

Interviewees discussed bonding with family and friends and receiving encouragement from others, which is similar to the “confidence from others” category suggested by Covelli (2011). Again, selecting to interview hunters instead of sending mail surveys produced additional information about the social aspects of hunting. Females commented on providing encouragement to others, especially other females, to maintain or increase their hunting participation. Positive input from social groups increases participation and may be of particular importance when females participate in masculine activities (Covelli, 2011; Enck et al., 2000; Hurtes, 2002), so it is possible that these females were helping to recruit and retain other hunters.

Spousal support is related to social support and emerged as a theme during my interviews. Stebbins (1992) suggested that spousal support can take the form of participation in the committed individual’s preferred leisure activity, and indeed, females mentioned wanting to share in an activity with their spouse. Similar numbers of males and females remarked on their spouse not hunting, but more males than females stated that their spouse was supportive of their participation in hunting (Chapter 3). Notably, females commented more than males on a lack of interest in hunting by their non-hunting spouse (Chapter 3). These findings seem to challenge the findings of previous research that suggested females were motivated to hunt with their spouses (Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008). Granted, some interviewees did discuss their motivation as such, and it is important to note that female hunters are not as homogeneous as previous studies have suggested.

## **Negotiation of Hunting Constraints**

Interviewees commented on their cognitive and behavioral negotiation strategies; however, most previous studies centered wholly on behavioral strategies (e.g., Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son, Kerstetter, & Mowen, 2008; Son, Mowen, & Kerstetter, 2008). Interviewees using cognitive negotiation strategies acknowledged constraints to hunting existed and accepted those restrictions as a part of their lifestyle. Comments on behavioral negotiation strategies followed the categorization suggested by Hubbard and Mannell (2001), with the exception of an additional category, health management.

Males and females had similar cognitive and behavioral negotiation strategies with the exception of the time management category for behavioral strategies. Females reported more negotiation strategies associated with time management than males. The greatest difference in time management negotiation strategies between genders was related to family responsibilities and prioritization of their leisure time. Females reported more constraints associated with family responsibilities, so it is unsurprising that they commented more on negotiating these types of constraints as constraints need to be perceived in order for negotiation strategies to be triggered (Jackson, 2000; Jackson et al., 1993; Hubbard & Mannell, 2001; Scott, 1991). Females are also more likely to have a reduced sense of entitlement to participate in personal leisure pursuits and guilt for taking time to participate due to their propensity to put others' needs before themselves (Henderson & Dialeschki, 1991; Peters & Raaijmakers, 1998; Shaw, 1994; Strang, 2001). Such responses may be related to women utilizing prioritization negotiation skills more often than men.

## **Conclusion**

Most previous studies of hunters have used close-ended questionnaires mailed to respondents and data were analyzed quantitatively to develop a generalization for the population (e.g., Adams & Steen, 1997; Covelli, 2011; Heberlein et al., 2008); however, these studies may have failed to provide an in-depth understanding of hunters, especially females. The lack of qualitative analysis of hunters seems to have created a disparity between hunters' reality and researchers' understanding. Evaluating hunters qualitatively highlighted aspects of the hunting experience being missed by quantitative studies. Most notably, females commented on their resistance to gender roles and the influence of family structures. These topics are presented in non-consumptive leisure studies when evaluating gender differences, but they seem to be ignored in the hunting literature. Instead, I propose future research use qualitative research methods to guide quantitative assessments. Qualitative assessments allow researchers to probe their subjects more thoroughly through open-ended questioning than the close-ended questions associated with quantitative research methods. Once a base of knowledge has been developed from qualitative research, quantitative methods can be used to access the hunting population as a whole. Both methodologies have their strengths, but ignoring one can leave weaknesses in researchers' knowledge.

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## VI

### SYNTHESIS

Natural resource conservation agencies are substantially funded by hunters who purchase hunting licenses, hunting equipment, and memberships in conservation organizations (Enck, Swift, & Decker, 1993; Loveridge, Reynolds, & Milner-Gulland, 2007), therefore continued hunter participation is critical to maintain continued funding. Hunter participation is vital to maintain funding for natural resource conservation, yet the hunting population has been declining. Between 1991 and 2006, hunting participation decreased 11% nationally (USDI, 2012a). Hunting participation increased 9% from 2006 to 2011 (USDI, 2012b); however, this increase was only observed during one sampling period and may not be indicative of the long-term trend of hunting participation. In contrast, female participation has been increasing in recent decades (Bissell, Duda, & Young, 1998, 1998; Heberlein, Serup, & Ericsson, 2008; Ryan & Shaw, 2011). Between 1991 and 2011 female participation increased from 1.1 to 1.5 million (USDI, 1992; 2012a). Moreover, females have become a greater proportion of the hunting population, increasing from 8% to 11% during the same 20 year period noted above (USDI, 1992; 2012a).

Hunting participation is initiated through recruitment into the sport. Most hunters are taught by their fathers or other male family members (Bissell et al., 1998; Boglioli, 2009; Duda, Bissell, & Young, 1996; Purdy, Decker, & Brown, 1989; Shaw & Gilbert, 1974), and most are initiated into hunting as youths (Copp, 1975; Langenau & Mellon, 1980; O'Leary, Behrens-Tepper, McGuire, & Dottavio, 1987). Hunters who are introduced at younger ages are more

likely to continue participation and have greater levels of commitment compared to those who began hunting later in life (McFarlane, Watson, & Boxall, 2003; O'Leary et al., 1987; Purdy et al., 1989).

Females, however, often begin hunting as adults and are recruited by their spouses (Adams & Steen, 1997; Heberlein et al., 2008; Jackson, McCarty, & Rusch, 1989). Moreover, females are more responsive to input from social groups than males (Culp, 1998; Henderson, 1994; Jackson & Henderson, 1995; Thomas & Peterson, 1993). Additionally, social groups may be more influential when females participate in masculine recreation activities, such as hunting (Covelli, 2011; Hurtes, 2002). Due to the influence of social groups, females who participate in hunting may help to recruit and retain other females into hunting (Boglioli, 2009; McFarlane et al., 2003; Shaw & Gilbert, 1974).

Females comprise a small percentage of the hunting population, yet their presence in the hunting population is increasing and has helped to mitigate the loss of male hunters (Bissell et al., 1998; Heberlein et al., 2008; McFarlane et al., 2003). Previous studies of female hunters singularly evaluate females in the population and comparing their findings to previous literature (e.g., Adams & Steen, 1997; Heberlein et al., 2008), rather than also sampling male hunters from the same population to serve as a control. Gender can influence leisure preference and participation (e.g., Henderson, 1996; Shaw, 1994; Sky, 1994); however, studies of hunters that utilized close-ended questionnaires may not have provided researchers with a full understanding of hunters' perceptions of their hunting experience. Understanding gender differences in recruitment, participation, and retention is imperative to identify those who are at a greater risk of desertion will allow programs to be refined to better promote the retention of existing and recruitment of new members. Therefore, the objective of my study was to utilize qualitative

research methods to identify factors associated with hunter recruitment, participation, and retention.

Participation in leisure activities, such as hunting, is determined by numerous psychological and physical factors. In Chapter I, I provide an overview of the complete study and the objectives associated with each component of the project. In Chapter II, I presented a literature review of the different factors that influence hunting participation and the influence of gender on these factors. The first factor is constraints that can reduce hunter participation. I then presented four factors that promote hunter participation: (a) motivations, (b) self-efficacy, (c) social support, and (d) constraint negotiation.

In Chapter III, I evaluated the influence of gender on participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing for hunting, perceived skill level, total years hunting, years hunting in Illinois, and age. Additionally, I evaluated if perceived skill level is dependent on gender, participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, number of days hunting, number of days preparing for hunting, total years hunting, years hunting in Illinois, and age. Males and females differed in the number of days hunted during the 2012-13 hunting season, perceived skill level, total years hunting, years hunting in Illinois, and age. Gender did not influence participation in the 2012-13 hunting season, intention to hunt during the 2013-14 hunting season, or number of days spent preparing for hunting. Additionally, males who hunted more days and years were more likely to report a greater skill level than others.

In Chapter IV, I evaluated the differences between genders in terms of: (a) age of initiation and interest in hunting, (b) types of species hunted during initiation and currently, (c) perception of identity, (d) individuals who mentored them into hunting, (e) family members who

hunt, and (f) individuals they mentored into hunting in Illinois. The findings showed that males began hunting as youths and primarily hunted small game, whereas most females began hunting as adults and hunted large game. Currently, most males hunted small and large game, whereas females predominately hunted large game only. Interviewees commented on identifying themselves as hunters or perceiving it to be part of their identity, regardless of gender. Males primarily learned to hunt from their fathers and uncles, whereas females reported learning to learn to hunt from their significant others, fathers, and sons. More male interviewees reported having males in their family from older generations who hunted than female interviewees, and males were more likely to state that their father hunted. Females reported more hunters in their family from younger generations than males, specifically younger females. Additionally, more females than males reported having significant others who hunted. Males primarily taught their children and significant others to hunt, whereas females mentored their daughters, granddaughters, and grandsons. Females also commented on their role in providing encouragement for their children and grandchildren to try hunting.

In Chapter V, I evaluated the difference in gender between perceived: (a) constraints, (b) motivations, (c) self-efficacy, (d) social support, and (e) constraint negotiation. Males reported more health and work constraints, whereas females reported more constraints related to family commitments. Females reported on their motivations for hunting more often than males. Males reported being motivated to harvest food, whereas females remarked on their motivation to spend time with family. Females also discussed their motivation to hunt as a way to resist gender roles. Most males commented that they felt they were where they wanted to be as a hunter, but females remarked on seeking new ways to improve themselves and learn from their previous hunting experiences. Moreover, only females discussed that hunting increased their confidence and self-

sufficiency. All interviewees reported being supported in their choice to hunt, but nearly half of the females reported someone disagreeing with them hunting. Males and females had similar cognitive and behavioral negotiation strategies, with the exception of the time management category for behavioral strategies; females reported more negotiation strategies associated with time management than males, specifically time management related to family responsibilities.

Females perceived themselves to have a lower skill level than males, which may be related to the reduced participation during the hunting season and fewer years of hunting experience. Males and females differed in their hunting experiences, so studies that do not stratify by gender can fail to understand female recruitment and retention. Females were more likely to report mentoring and encouraging other females to hunt. Female-only programs such as Women in the Outdoors, Becoming an Outdoors Woman, and Ladies in Camo provide opportunities to females to learn shooting and hunting skills, but these programs may only be relevant to a subset of females. Females are more likely to participate in leisure activities that are family-oriented (e.g., Adams & Steen, 1997; Boglioli, 2009; Heberlein et al., 2008), so programs that emphasize hunting as a family activity may be a way to recruit and retain females.

Most previous studies of hunters have used questionnaires that were mailed to respondents and data was analyzed quantitatively to develop a generalization for the population (e.g., Adams & Steen, 1997; Covelli, 2011; Heberlein et al., 2008); however, these studies may have failed to provide a complete understanding of hunters, especially females. Evaluating hunters qualitatively highlighted aspects of the hunting experience that are being missed by quantitative studies. Most notably, females commented on their resistance to gender roles and the influence of family structures. These topics are presented in non-consumptive leisure studies when evaluating gender differences, but they seem to be overlooked in the hunting literature.

Continuing to utilizing qualitative research methods will allow researchers to better understand hunters' perceived constraints, motivations, self-efficacy, social support, and constraint negotiation abilities and guide quantitative assessments.

Future research should apply these findings to the development of a quantitative survey that can assess experiences of the hunting population rather than specific individuals as this project did. Some females discussed a moral code for hunting, which alluded to a mutualism value orientation. Previous studies on value orientations have evaluated gender, but participation in consumptive activities, such as hunting, may yield a new understanding on individuals' value orientation. Additionally, most hunters reported hunting on private land, so future studies could evaluate gender differences in attitudes about land conservation.

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## TELEPHONE SURVEY QUESTIONNAIRE

Calls	Date	Time	Code
First			
Second			
Third			
Fourth			
Fifth			

**Call Codes:** AM=Answering Machine      NA=No Answer      WN=Wrong Number  
 B=Busy signal      R=Refusal      NT=Not Tonight

---

Hello, my name is \_\_\_\_\_ and I'm a student [or work] with the Illinois Natural History Survey. We're conducting a short survey of hunters. May we please speak with \_\_\_\_\_.  
 Are you able to take 5 minutes to answer a few short questions about hunting? Please note that you have a right to refuse to participate in part or all of this survey.

---

1. Did you hunt between August 1, 2012 and July 31, 2013?

\_\_\_ Yes      \_\_\_ No (*Please go to **Question 4***)

2. How many days did you hunt?

\_\_\_ Fewer than 10 days      \_\_\_ 11-20 days      \_\_\_ More than 20 days

3. How many days did you spend preparing for hunting? (e.g., dog training, sighting guns, scouting for hunting locations)

\_\_\_ Fewer than 10 days      \_\_\_ 11-20 days      \_\_\_ More than 20 days

4. Do you plan to hunt between August 1, 2013 and July 31, 2014?

\_\_\_ Yes      \_\_\_ No

5. How would you rate your hunting skill level?

\_\_\_ Novice      \_\_\_ Intermediate      \_\_\_ Advanced

6. How many years have you hunted?

\_\_\_ Years

7. How many years have you hunted in Illinois?

\_\_\_ Years

8. What is your gender?

\_\_\_ Male      \_\_\_ Female      \_\_\_ Refusal

9. What is your age?

\_\_\_\_ Years

\_\_\_\_ Refusal

10. What is your county of residence?

\_\_\_\_\_ County

\_\_\_\_ Refusal

11. In the future, we will be conducting a study about a person's hunting experiences. Would you be willing to participate in a short interview where we could ask you a few more in-depth questions about hunting?

\_\_\_\_ Yes

\_\_\_\_ No

12. Is this the best way to contact you?

\_\_\_\_ Yes

\_\_\_\_ No; preferred

method \_\_\_\_\_

**Thank you for your time.**

---

**For data entry only**

IDNR management zone

\_\_\_\_\_

## B

### INTERVIEW QUESTIONS

1. When did you become first interested in hunting? (e.g., age, period in life, etc.)
  - a. What began this interest?
2. When did you start hunting? (e.g., age)
  - a. When did you first shoot a firearm or bow? (e.g., age)
3. Who took you on your first hunt?
4. With whom do you hunt with most often at this point in your hunting career?
5. What species did you start hunting?
6. What species do you hunt most often at this point in your hunting career?
7. What is your favorite species to hunt?
8. Have you mentored anyone as they become a hunter?
9. Does your family and friends support your involvement in hunting?
  - a. How do they support you? (e.g., approve of choice to hunt, serve as a mentor)
10. Do you have any family or friends that are opposed to your decision to hunt? Why?
11. What are your reasons for hunting?
12. Does hunting help define who you are? (e.g., how so?)
13. Do you feel you are where you could be as a hunter? (e.g., skills, competency)
  - a. What area(s) would you like to improve?
  - b. What is keeps you from fully developing your abilities?
  - c. Do you know where to go/possible ways to build these skills?
14. What limits/restricts/reduces your participation in hunting or hunting preparation?
15. How do you overcome these limitations?
16. Is there anything else you would like to share about your hunting experience?