

The influence of norms on catch & release behavior in salmon angling

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Introduction

The live release of salmon (a.k.a. catch & release (C&R)) has been proposed as a tool to continue fishing for salmon while ensuring enough spawners in the river. In Norway angling has for a long time had taking fish for food as an end point. Semi-subsistence attitudes such that “you do not play with the food” (cf. catch & release) have been dominating. The growth of C&R is changing both the character of the fishery, abundance of fish and behavior of anglers. The literature on C&R is extensive and multidisciplinary, but many aspects of C&R are not well understood. Norms are known to influence human behavior, but their impact on catch and release angling has not been investigated yet as we are aware of. This study addresses the influence of norms on salmon anglers’ behavioral intention to voluntarily release fish.

Theory

Norms

Norms are defined as evaluative standards of individual behavior or conditions in a given context (Donnelly et al. 2000), or how Homan puts it (1950:124): “norms are not behavior itself, but rather what people think behavior ought to be.” Norms can help understand why people (individuals or collectively) express in regular or irregular behavior. The variables that activate (Bratt 1999; Schwartz 1977) a norm are the interest of some researchers. Others concentrate on how social pressure can impact behavior (Fishbein & Ajzen 2010). To find out what theoretical approach is the best for examining a problem, one should know how different researchers use the concept “norms”. Issues involving encouragement of environmentally responsible behavior (e.g. recycling, C&R), are probably best examined with the norm focus/activation models. The norm activation theories measure norms at the individual level (i.e. personal norms) and then aggregate the data to get social norms. The Theory of Reasoned Action (Fishbein & Ajzen 2010), however emphasizes the perceived social norms (i.e. subjective norms) and only indirectly address the concept of a personal norm (through a person’s attitude).

Conceptual model

We have adapted and refined Bratt’s (1999) model of recycling behavior as a conceptual model for our study (figure 1). Bratt (1999) mixes the concept of Fishbein & Ajzen’s (2010) theory of reasoned action and Schwartz’s (1977) norm-activation theory. For Fishbein & Ajzen (2010) *social norms* are what the person thinks other people (e.g. family, fishing buddies, other anglers) think is the appropriate behavior; i.e. a subjective social norm. Thereby being institutionalized and often involves punishment or sanctions for

noncompliance. Schwarz’s (1977) norm-activation theory defines a norm as “an internalized sense of obligation to behave in given manner in a particular situation” (i.e. a *personal norm* (e.g. I should release or keep all the fish I can)). Two conditions are necessary to activate the norm and make individuals act: individuals must hold an *awareness of the consequences* their behavior has on others (e.g. deterioration of fishery if C&R is not done) and they must accept some responsibility for their actions (i.e. *ascription of responsibility* (AR)). Similar to Bratt’s (1999) study, we use a modification of Schwartz’ (1977) model and does not include AR.

Method

A web-based questionnaire was sent to all anglers registered with e-mail by Lakselv Riverowner organization. Most scale variables were measured on a 7-point scale. Based on the variables in the conceptual model we ran a multiple regression model with behavioral intentions to release fish as the dependent variable.

Results

We received 656 responses, a rate of 68%. The regression model explained 38% of the variation. Variables that significantly contributed positive to the intention to release fish were influence of fishing buddies, the four assumed consequences variables (except “self keeping every fish” which not significant), and the personal norm “favor C&R”. The personal norm “against C&R” was having a significant and negative impact on the DV. The influence of family members and other anglers in the Lakselv River did not contribute to the model.

Discussion & conclusion

The reasons why a social norm was experienced only through fishing buddies could be that this group is closer to the angler and involve more in angling than other groups. The results indicate that anglers in this study responded to the assumed consequences of the collective action (the norm was activated and action taken) by adjusting their own behavior to avoid negative impact on the fishery. This implies that anglers tend to adjust their behavior in the way that they think most anglers should behave, even though the consequences of own behavior on stocks are relatively small. Knowledge or belief that released fish will survive was found to be variables that would activate the personal norm regarding keeping or releasing fish and again influence behavior. Implications of the results includes that managers, if they want to promote C&R, should try to shape behavior through informing and teaching anglers about proper handling techniques and the effects of C&R on individual fish and fish stocks.

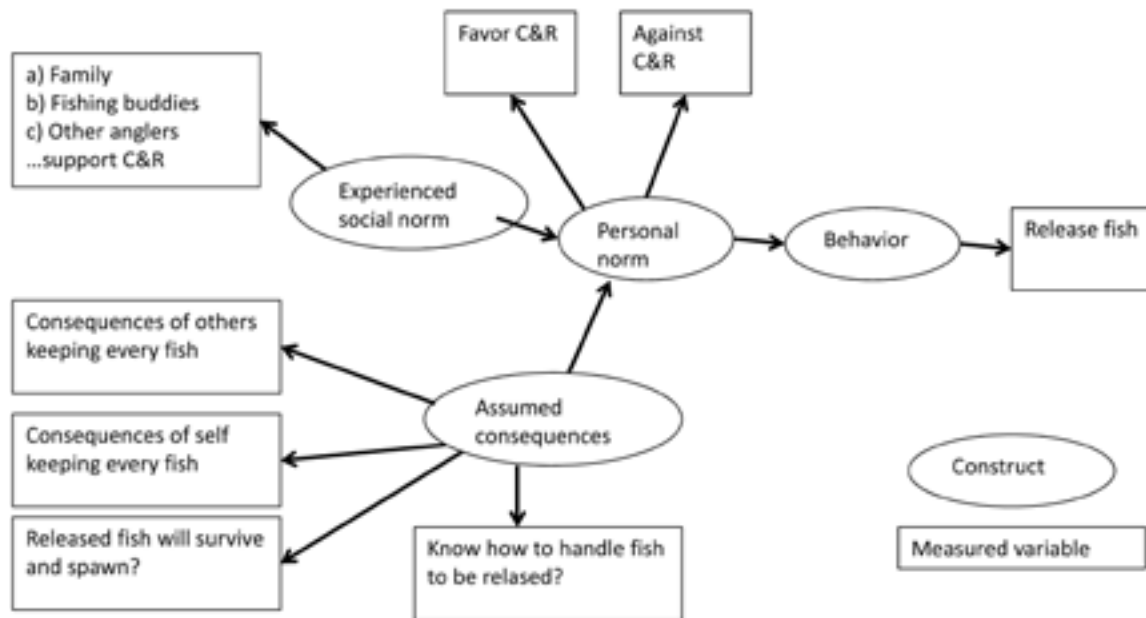


Figure 1. Conceptual model of the influence of norms on catch and release angling behavior. A merger of Schwartz' (1977) norm activation theory, and the theory of reasoned action (perceived social norm) (Ajzen & Fishbein & Ajzen 2010). Figure adapted from Bratt (1999).

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