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# **Chapter 5. Attitude stability in a changing carnivore context: The foundations of attitudes towards the Swedish wolf policy**

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## **1 Introduction**

Attitudes are popular concepts which are commonly used in political science and appear with regularity throughout most of the disciplines within social science. The reason for the vast spread of the attitude concept is partly due to the fact that it has been able to fulfil a number of important functions across a number of academic disciplines. In psychology, attitudes are vital in order to explain the formation and establishment of the self, in social psychology they offer a link between the internal processes and social behaviour, and in sociology they are needed to identify and understand large scale societal changes.

Political science can benefit from the use of attitudes in all the ways mentioned above, but there are also a number of functions that makes attitudes particularly necessary within the academic field. Notions of democracy, representation, and justice all hinge on somehow acknowledging the preferences of the people or at the very least being aware of them in order to create efficient policies in relation to those preferences.

"The will of the people shall be the basis of the authority of government"

*Universal Declaration of Human Rights Article 21(Assembly 1948)*

One of the basic assumptions in modern political science is that responsible and moral government is contingent on acting in agreement with, or at least on the behalf of, the will of the people. In the case of modern representative democracies, this fundamental requirement demands some kind of connection between the actions of the governing representatives and the preferences of the governed. Thus, legitimate government is dependent on a method of communicating ideas and values of the people to the political elites; and large scale measurement of attitudes is the most efficient way of providing

this link. Attitudes surveys are the only method which allows for the detailed study of large scale societal changes of attitudes over space and time, which makes attitudes one of the most useful tools available when trying to determine what the people actually want. Thus knowledge of attitudes can be said to be a basic requirement for the interpretation of the will of the people, and ultimately also for the possibility of legitimate rule.

Attitudes survey are widely used throughout the different sub-disciplines of political science whether one deals with policy analysis, comparative politics or electoral studies etc. In addition to broad usefulness in different types of research, attitude surveys can also be used for a number of different functional reasons. For instance, they can be used explanatively as a basic assessment useful for either future policy implementation or attempts to predict future attitude patterns. They can be used prescriptively, in order to gauge the public's attitudes with regards to policy alternatives. They can also be used as an evaluative tool to understand the impact of previous changes on the attitudes of the public.

Despite the connection between the attitude concept, the idea of legitimate government, and the wide use of attitudes within political sciences, the concept is primarily used as a tool and not as the main object of study in political science. Of course there are notable exceptions to this rule, mostly within the field of political attitudes, but also within some branches of electoral research and the attitude based research of individual social scientists such as Ronald Inglehart (e.g. (Inglehart 2004)). Generally it can still be argued that one has a tendency to use the attitude concept much more than one analyses and reflects upon it. Instead, the research dealing directly with attitudes has been concentrated to other academic fields, such as psychology and sociology, from which political scientists have then adopted theories and models to their needs in order to be able to use attitude data as analytic tools to study other things. In this article, I will try to re-approach the broader questions relating directly to the make-up of attitudes as these questions are of vital importance if the information gained from attitude surveys are to be interpreted correctly.

I have decided to examine these theoretical problems by applying it to the attitudes concerning the Swedish wolf policy because of the delicacy of the issue based on attitudes. The issue of whether or not to have a wolf population in Sweden and its relative size (which is the essential conflict embedded in the policy) has become extremely attitudinally divided. This has been driven by relatively small groups of individuals on both sides of the issue with extreme attitudes, while a large group in the middle have more moderate attitudes and are susceptible to external influences (Heberlein and Ericsson 2005). The conflict is also a clear example of the disagreement between conservation versus use, as ecological conservation interests are pitted against the economic and cultural interests of the local community. These aspects make the policy interesting as there are distinct groupings of attitudes to study and the presumably weaker attitudes held by a majority of the public also may make it likely that some kind of attitude shift can be observed within the time periods studied.

### **Aim**

Specifying the broader reasoning above, the concrete object of this study will be public attitudes towards the Swedish wolf policy as a case of conservation versus use conflict within the field of environmental policy.

Concentrating on public attitudes in connection to the Swedish wolf policy, the aim of this study is thus to examine attitude stability by looking the factors involved in their formation. In order to achieve this, the questions of interest are:

- What are the factors affecting attitudes towards the Swedish wolf policy?
- How stable are the attitudes towards the Swedish wolf policy?
- Which groups in the public are most likely to change their attitudes towards Swedish wolf policy given their attitudes?

In answering these questions I will primarily be using survey data and while doing this my dependant variable will be popular attitudes towards the Swedish wolf policy, in the form of the wolf policy goal (at the time this material was being compiled this was set to 200 wolves for 2004 and 2009). The independent variables will primarily be a number of survey answers which previous research indicate are connected with the wolf issue along with a number of more general socio-economic factors (see Appendix 1 for the model thus far).

Due to the connection between the wolf policy and the size of the wolf population I will not attempt to make any greater distinction between the two. Instead attitudes towards the wolf policy, the wolf population goal and the wolf itself will sometimes be used interchangeably as these concepts go together in many contexts. This is, however, avoided in the sections relating to previous research.

## **2 Theoretical framework**

### **Attitudes**

The definition of *attitude* is contested, but while the definition differs considerably depending on academic field and other contextual factors, most definitions do contain some common aspects (Olson and Zanna 1993) as they often are made up of an evaluative and an affective component (Olson and Zanna 1993). Some theories emphasise the evaluative nature of attitudes, for example, “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour”(Eagly and Chaiken 1993); others focus on the affective dimension, for example, the affect associated with a mental object(Greenwald 1989 p.432); and some theories do not directly include affective and evaluation elements, but instead define attitudes in terms of their effect on other processes such as cognition, for example, “a special type of knowledge, notably knowledge of which content is evaluative or affective”(Kruglanski 1989p. 139) or behaviour as in Olson and Zanna’s idea, “a state of a person that predisposes a favourable or unfavourable response to an object person or idea” (Olson and Zanna 1993).

Given the broad selection of definitions available, the decision to settle upon Eagly and Chaiken’s definition came as it allows for the inclusion of many elements present in other definitions, without ending up with a practically useless, all inclusive definition. They define an attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour”(Eagly and Chaiken 1993). The strength of this definition is that, while it focuses the role of attitude in connection to evaluative processes, it is surrounded by a theoretical framework that builds on the assumption that attitudes can have cognitive affective and behavioural antecedents and

responses (Eagly and Chaiken 1993), which effectively include elements from rival definitions of attitudes into the analytic model (Olson and Zanna 1993).

Although this definition captures many aspects of other definitions, it also effectively shrinks the attitude concept as it becomes a mediator between stimuli and the reaction to that stimulus. It could be likely that this rather psychological definition may turn out to be too narrow for the purposes of this study as the research progresses but I feel that it still can serve as a useful starting point for the work, which may or may not be updated or replaced completely in a later stage.

The primary function of attitudes is the evaluation of an attitude object. An attitude object can be anything from a concrete object to a broader abstract concept such as socialism or healthcare. When subjected to the attitude object (which can be virtually anything, a concept, a feeling, a behaviour, or an actual object) this triggers an evaluative processes in which the attitude is used to arrive at a response, which just like the trigger, can be of an affective, cognitive or a behavioural nature (Eagly and Chaiken 1993 p.5).

Attitude objects are in turn supported by beliefs which can be seen as ideas and perceptions held by the individual concerning the actual properties of the attitude object in question (Eagly and Chaiken 1993 p.123). Ultimately this gives beliefs a central role in both attitude formation and attitude change (Eagly and Chaiken 1993 p.4) as they support the attitude objects, which in turn generates attitudes. The possibility that attitude objects can be supported by false beliefs is very promising for policy makers and leaders interested in changing attitudes, as they make it theoretically possible to change the attitudes of the public, and ultimately their behaviour, simply by supplying new information via education initiatives, media etc. (Heberlein and Ericsson 2005; Heberlein and Ericsson 2008).

Theories on attitude formation are more or less agreed that attitudes are formed by experiences and repeated interactions with attitude objects (Pratkanis and Breckler 1989 p.2-3; Eagly and Chaiken 1993 p.4). When an individual encounters a potential attitude object, an evaluation is made on the basis on contextual factors, prior experiences with similar attitude objects, and basic values, which over time and with numerous confirmations by further encounters with the same attitude object, develops into an attitude (Olson and Zanna 1993; Ajzen 2001; Schwarz and Bohner 2001). When

an attitude has been formed, future evaluations of the attitude object will be much quicker as the attitude acts as a mental shortcut cutting down the costs of decision-making connected to an evaluative process by skipping parts of it (Alwin and Krosnick 1991; Eagly and Chaiken 1993; Olson and Zanna 1993). Most central attitudes are formed relatively early in an individual's life and they become harder and harder to change over time as multiple encounters with the same attitude object develop and validate the attitude in question (Pratkanis and Breckler 1989 p.2; Olson and Zanna 1993). There is an alternative theory that ascribes attitudes a somewhat more fleeting character by virtue of their formation. According to this idea, attitudes are essentially reformed each time an individual is confronted with an attitude object instead of being validated based on previous encounters with the attitude object and as a result they become more dependent on the situational context than previous experience. However as experience still is considered a factor in this formation the actual difference in terms of stability is smaller than they might appear at first glance (Olson and Zanna 1993; Nordlund 2009).

Attitudes perform a number of internal psychological functions involving self-image, identity creation, group identification and more which is central to research within social psychology and psychology (Sparks and Shepherd 1992; Greenwald and Banaji 1995); however the most important function given the stated goals and the chosen definition is the function attitudes play in categorising external input. Attitudes simplify the evaluation of well-known attitude objects which speeds up the decision making process considerably in relation to that of less well known attitude objects (Olson and Zanna 1993). However this quick evaluation process systematically distorts incoming information as it favours input which fits with existing attitudes and values while disregarding information which does not fit. According to cognitive consistency theory and cognitive dissonance theory, this process is driven by the need of a coherent system of attitudes and values ultimately driven by the need to preserve one's identity (Eagly and Chaiken 1993p.114-117; Wood 2000). The connection between attitudes and identity means that questioning a strongly held attitude might well have negative effects on the stability of an individual's identity. In order to prevent destabilising one's self image and identity, external information is filtered out as a psychological defence mechanism in an attempt to protect the current structure of attitudes and values. The



strength of this effect varies depending on the nature of the incoming information as well as the centrality of the attitude to the individual; the larger the disturbance is to the value system the larger the distortions that are generally allowed.

### **Values**

Values are abstract concepts of a general nature which define the basic worldview of individuals and represent a higher order of evaluative functions than attitudes, meaning that values essentially evaluate attitudes (e.g.(Olson and Zanna 1993; Ajzen 2001). Characteristic of a value is that it concerns a very broad issue on a very abstract level, which is then often made more specific to contexts and attitude objects through connections to various other specific attitudes (Olson and Zanna 1993). Values have typically been measured in the form of dichotomies, like ecocentrism vs. anthropocentrism (Dunlap, Van Liere et al. 2000), which then are combined into different sets, or scales, depending on the context which can be seen in (Schwartz and Bilsky 1990; Dunlap, Van Liere et al. 2000). Attitudes, on the other hand, are usually dealt with on a much narrower subject, such as ecological food (Tarkiainen and Sundqvist 2005), or wolf policy (Ericsson and Heberlein 2003). Research on values has mainly been focused on the connection between values and behaviour with varying results. Generally correlations have been found (Wesley Schultz and Zelezny 1999) , however isolating those effects to values have proven to be a problem. Looking at other psychological factors alone, the possible existence of norms, attitudes and habits has been problematic, especially since values are assumed to need underlying attitudes in order to affect behaviour (Olson and Zanna 1993).

Values are higher up in the hierarchical order than attitudes, meaning that they, besides shaping identity, self-image and perception, also effect attitude formation. Much in the same way attitudes filter incoming beliefs and attitudes by avoiding cognitive dissonance, values sort attitudes based on how they fit the existing values (Olson and Zanna 1993). There is also support for this in the form of correlations between values and attitudes (e.g.(Tangerland 2012)).

By connecting beliefs about attitude objects to attitudes and connecting attitudes to values, the individual is de facto creating a model of reality through which it interacts with external world. Values and attitudes make up a hierarchical structure where values

make up the basic world view, while attitudes represent more specialised views connected to specific sectors of areas via attitude objects.

### **Norms**

Norms are socialised codes of conduct that impose various sanctions on behaviour; depending on the context norms can make an individual act or refrain from acting by imposing external sanctions (e.g. social pressure, laws, or informal rules) or internal sanctions (e.g. conscience, guilt) (Nordlund 2009). This means that norms sometimes can hinder a person from acting, despite the trigger of an attitude with a behavioural response. If this is the case, the individual in question is said to have a behavioural intent which is the product of an attitudinal evaluative process that would have resulted in a behaviour/ action if not for the sanctions imposed by one or several norms (Nordlund 2009).

### **Value system**

Even if all these concepts can be said to be relatively soft there are some common elements which can be found in all of them. Values are seen as the top hierarchical objects which are central to identity formation and to varying degrees seen as determiners of attitudes. Attitudes can be said to be mental structures that have an evaluative function connected to a specific concept or object (attitude objects). The fact that attitudes are a part of the mental structure also means that they affect most cognitive processes, other attitudes, incoming information, memory and values. This means that attitudes are central not only to our evaluations, but also to the creation of our identity, our world view, and our actions.

These leaves a system centred on one or a few core values which, in turn, affects the structuring of the surrounding beliefs and attitudes which also affects the development of new, more peripheral, attitudes and beliefs. Centrality matters; the more central an attitude, the more connections it has to core values and beliefs. As a result it becomes more psychologically important and more stable. Conversely peripheral attitudes connected only to a few loosely held beliefs should be relatively instable, as outside information or new attitudes might easily cause them to be incompatible with the rest of the system.

### **Previous research**

Wolf management started after the return of isolated Russian individuals in 1990. Then the Swedish population was made up of three individuals, and ever since the wolf population has increased yearly; today there exists approximately 300 wolves in Sweden. This change in numbers has been demanding for both management and policy as they have both been forced to adapt to the new situation as the wolf population has grown.

Due to the previous small size of the wolf population in Sweden, the research has largely been focused on increasing their numbers which has led to a situation where biological and ecological research of a scientific nature has dominated the field. However increasing wolf populations has led to an increasing discontent in certain parts of the country, which over time has led to the inclusion of more research geared towards social science.

The success of the wolf in terms of population size has led to a shift in the Swedish wolf policy away from short term biological survival to more long term goals of sustainability and social acceptance; thus social scientific research has become increasingly important for efficient policy making and implementation, as questions of social acceptability, rather than biological factors, have become the chief factor limiting the growth of the wolf population (SOU 2012:22). Earlier work by social sciences often focused on quantitative works measuring acceptance of the wolf on the national scale or within the wolf areas, presumably since this was the most accepted method in the eyes of the natural scientists (Ednarsson). However, as time has passed, social scientists have increasingly come to use a range of alternative methods enabling a deeper understanding of the problem of acceptance(Ednarsson).

In a way this thesis will return to the methods of the earlier social science works within the field, but with a new focus. While I still plan to map and examine how the attitudes are spread across different parts of the country, the main objective of this work will be to make a contribution, not to carnivore policy, but to attitude theory, and this shift in aim more than justifies revisiting the method which was previously used in wolf policy analysis.

### **Change and attitudes towards the wolf**

Expanding wolf populations in a number of different parts of the world have generated an exhaustive debate about people's perceptions of wolves (Williams, Ericsson et al. 2002; Kleiven, Bjerke et al. 2004; Ericsson, Sandström et al. 2006) and to what extent these perceptions are subject to change over time. Through their synthesis of quantifiable data, collected between 1972 and 2000, Williams, Ericsson et al. (2002) showed that attitudes towards wolves have remained relatively stable over time. Based on a case study in Utah, Bruskotter et al. (2007) came to the same conclusion for the last decade.

Majić and Bath (2010), however, found that the attitudes towards wolves shifted in their study in three different regions in Croatia, even over a relatively short period of time, and that the documented effect could not be the result of a cohort effect.

In terms of factors affecting attitudes towards wolves, previous research has found a substantial number of possible variables that can be summed up in four broad groups: Views of nature, Experience, Knowledge, Proximity and Socio-demographic factors. In addition to these previously explored variables I will also explore the effects of various forms of trust, both interpersonal and political, on the model as there are some qualitative findings that support this role in affecting attitudes (e.g. Skogen and Kränge 2003; Heberlein and Ericsson 2008; Figari and Skogen 2011).

### ***Environmental values and views on nature***

Attitudes towards wolves seem to be a part of a greater network of attitudes and values connected to nature. In a number of studies it has been shown that environmental attitudes are connected to views about nature and man's place in it. In terms of recycling behaviour, willingness to buy organic food, etc., there seems to be a correlation between basic nature friendly values and more peripheral attitudes, and the same seems to be true for wolf attitudes (Grunert and Juhl 1995; Dunlap, Van Liere et al. 2000; McFarlane and Boxall 2000). In a report to the Norwegian EPA there are clear correlations about how people feel about the amount of protected areas in Norway and their attitude towards wolf management. This means that wolf management attitudes are a part of a greater value system (Tangerland 2012) which would be extremely interesting given my theoretical aim.

### ***Experience***

The effect of direct wolf experiences on attitudes towards the wolf population goal has to some extent been found to be dependent on the perception of said experience (Ericsson and Heberlein 2003); wolf tracks or howls can be interpreted both negative or positive depending on the observer (Heberlein and Ericsson 2005). Some experiences have effects on attitudes that are less dependent on the observer: finding a devoured carcass, or having livestock or dogs killed tend to have strong negative effects on wolf acceptance (Ericsson, Sandström et al. 2006). Thus the net effect of experience seems highly situational.

### ***Knowledge***

A recent study on black bears and black bear recovery strategies suggest that knowledge about black bears influences attitudes toward recovery strategies, and that those with more knowledge about black bears are more likely to support an active recovery strategy (Morzillo, Mertig et al. 2010). However, quantitative studies that address the connection between knowledge and attitudes toward predator species do not always seem to be consistent in their findings. While some studies discover a positive relationship between knowledge of predators and support for wolves, other studies point to a negative relationship or no correlation at all (e.g. Kellert 1985; Lohr, Ballard et al. 1996; Williams, Ericsson et al. 2002). It is thus not clear to what extent knowledge makes people more or less supportive of wolves. As Williams et al. (2002) state, “there is a lack of time-serial data particularly in European countries which makes it hard to examine links between knowledge and attitude toward wolves.” Further testing could thus bring clarity to what extent knowledge about carnivores in general play a role in attitudinal change towards wolves.

Previous research has shown that knowledge level does affect the stability of attitudes (Heberlein and Ericsson 2008). The more an individual knows about predators, the less like he or she is to be swayed by outside information. A poorly informed person is more likely to shift his or her attitudes as a response to an information campaign or a media scare than a well-informed one (Heberlein and Ericsson 2005).

### ***Proximity***

Previous studies in Sweden show a drastic change in support for the population goal of wolves when comparing and contrasting the metrics of national, regional and local levels. While the national levels of acceptance for the wolf population goal are generally high, there are still large minorities and even majorities in certain municipalities that tend to be negative towards the wolf population goal (Ericsson et al 2006). One important explanatory factor, besides the over sampling of the urban populations in the national sample, has been the presence of large carnivores (wolves, bears, etc.), in areas where people are more negative towards the wolf population goal. A part of this effect can be attributed to NIMBY (not in my back yard) syndrome according to a study conducted by the Norwegian EPA (Tangerland 2012Et al.). However there are also clear signs that wolves in the vicinity do affect the quality of life negatively, making wolves a real problem, rather than an irrational fear (e.g. Bjerke, Reitan et al. 1998; Steen 2000; Karlsson 2001; Sharpe, Norton et al. 2001; Williams, Ericsson et al. 2002; Figari and Skogen 2011). Farming and hunting are undoubtedly affected by the presence of wolf; especially traditional herding practices such as shieling and the traditional reindeer herding of the Sámi (SOU 2012:22).

There are also studies that show that negative attitudes towards large carnivores are mostly incidental, and appear with the arrival of the animals but decrease over time with increased experience of large carnivores (Zimmerman et al. 2001). Such a change in attitudes could be an effect of awareness campaigns delivered and the implementation of predator-livestock damage control programs, or simply the result of a gradual acclimatization to coexisting with large carnivores (Majic and Bath 2009).

Generally the wolf has been known to drive attitudes towards other predators (Sharpe, Norton et al. 2001), but presence of other predators might also affect wolf attitudes; in particular the presence of bears has been shown to affect wolf attitudes negatively (Ericsson, Sandström et al. 2006).

There are also a number of beneficial effects that might come from living in a wolf area and which might lead to more positive attitudes. Both wolf tourism and wolf hunting have been mentioned as potential attitude changers in the future (Ednarsson 2005), but currently these industries are still in a start-up phase and their future success is contingent on the acceptance of the local population (Ericsson and Heberlein 2003)

which makes a rapid change of attitudes as a result of these new forms of commercialisation unlikely. The question relevant for the effects of proximity is whether it is the actual proximity that affects attitudes or if it simply a proxy for a number of other variables such as the limitations brought on by wolf in the form of damages on livestock or dogs.

### ***Socio-demographic factors***

Differences in people's perceptions towards large predators are also linked to a number of socio-demographic characteristics like age, education, place of residence, income and gender (e.g. Kellert and Berry 1987; Bath and Buchanan 1989; Ericsson and Heberlein 2003; Kleiven, Bjerke et al. 2004). Socio-demographic characteristics do cause attitude changes over time, but presumably this can largely be attributed to cohort effects. These attitude effects simply reflect inter-generational differences in socialization. This group also includes hunting as a variable as hunters in general have been shown to have more negative attitudes than non-hunters (Ericsson and Heberlein 2003). The most interesting aspect in this group is the urban/rural dimension, which has been shown to be important in a number of international studies (Noss, Quigley et al. 1996), but has been shown to have a varied effect in Sweden even though the pattern of wolf attitudes seems to roughly correspond with urban and rural areas. This has led to an increased interest in ideas relating to centre/periphery rather than urban/rural (Williams, Ericsson et al. 2002; Ericsson, Sandström et al. 2006; Heberlein and Ericsson 2008).

### ***Trust***

The importance of trust in all its forms has long been emphasized by social and political theorists, since high levels of trust at the individual level is connected to a number of important factors such as tolerance towards minorities, public participation and subjective well-being (Rothstein 2010). Political trust affects whether people favour policy reforms, and whether they are willing to comply with the binding decisions of policy makers (Levi and Stoker 2000), while social trust is seen by some as a basic necessity for the creation of social capital (Putnam 1995).

According to Uslaner, trust can be defined as an expression of optimism about the future and the possibility that one has control over one's destiny in life (Uslaner 2008). The opposite, i.e. the lack of trust, represents a more pessimistic approach and a general

feeling of lack of control of the future. This negative image is frequently repeated in qualitative research based on interviews of locals in wolf areas (Skogen 2001; Skogen and Krangle 2003). It is also very similar to the experiences of marginalisation and lack of control experienced by rural populations in relation to the interest of urban areas historically (Lewis and Maund 1976), and thus trust can be said to be important both to the urban/rural dimension in the wolf issue as well as the policy efficiency itself. Trust has not been quantitatively studied in relation to wolves and wolf policy despite the fact that wolves have been defined as an important symbol of the urban/rural divide. There also exists a great source of marginalisation and distrust where decisions about wolves and wolf policy are made without the inclusion of local population (Bjerke, Vitterso et al. 2000; Skogen and Krangle 2003; Heberlein and Ericsson 2008).

One possible hypothesis that has been suggested by earlier research is that low acceptance towards the wolf population goal is caused by low levels of political and social trust, meaning that wolf management has become a figurehead in the struggle between urban and rural. The argument for such a causal connection would require general feelings of marginalisation and an issue to rally around suitable for social mobilisation. According to Skogen and Krangle (2003), there are clear feelings of marginalisation in parts of the countryside with regards to the wolf policy as it is seen as something forced upon the local communities by urban groups and seen as reflecting urban values alone. The issue has the basic ingredients required to become a figurehead for social mobilisation (Tarrow 1998); the wolf issue has a strong traditional role in rural culture which is incompatible with the demands of modern wolf management.

### **3 Methods**

#### ***Research design***

The main purpose is to examine attitude stability by examining attitude formation within a policy field. The foundation of this process involves repeated measurements over time and space in order to examine emerging attitudinal patterns. However I am also interested in a more detailed examination of the factors involved in attitude formation which means that the methods need to be able to handle both the large scale



descriptions and detailed explanations of how different variables interact in the formation of attitudes.

Quantitative approaches to attitudinal data allow for the measurement of the prevalence of attitudes across a population, and they also allow for tracking changes in societal attitudes over time, which is exactly what is needed for the descriptive part of the dissertation. Despite all the problems involved in using statistics based on survey data, such as self-selection, risks of oversimplification or misunderstandings, etc., this is the best option when trying to study attitudinal changes in the general population, as it offers an overview of the entire study. Statistical methods will also be used to find patterns within the data in order to try and map different groupings of attitudes among the respondents.

In order to map the interactions of the different actors in connection to the wolf policy, I plan to use a mix of qualitative techniques in order to identify which arguments are being put forth in relation to it. My current idea is to make a process tracing document study of a relevant event (e.g. the cancelled wolf hunt of 2011) and see if there are any possible causes of attitude change, in the form of arguments, that my broader framework might have missed.

I will focus on quantitative methods for the bulk of my work with 2-3 articles working primarily with statistical data while 1-2 articles will consist of deeper qualitative examinations meant to support the more quantitative texts. This methodological focus works well considering the aims of the study and the available material. Concentrating on quantitative methods will both enable me to get an overview of the attitudinal relationships involved in Swedish wolf management and will allow me to use the statistical data I have available as efficiently as possible.

The techniques I have planned on so far involve regression analysis, factor analysis of the quantitative parts, and a combination of policy analysis, document study and process tracing for the quantitative parts of my thesis. Regression analysis will be suitable for the large scale analysis of the statistical material, the factor analysis can be used to identify groupings or patterns in the material and the quantitative techniques should be suitable given that I plan to use them to follow a policy implementation process and the actors surrounding it.

### **Measurement problems: Attitudes towards the Swedish wolf policy**

The main objective of the Swedish wolf policy is the establishment of wolf population goals that contain a concrete minimum number of wolves that will exist in Sweden (SOU 2012:22). This makes measuring the attitudinal effects of the policy without simultaneously measuring the underlying attitudes towards the size of the Swedish wolf population virtually impossible. This dilemma is also found in the operationalisation of the dependent variable-- a survey question framed as follows:

In the spring of 2001 the Swedish parliament decided how many large carnivores we should have in Sweden. The first goals were set to the number of reproducing females which correspond to at least 1000 brown bears, 1500 lynx, 400 wolverines and to 200 wolves. What is your opinion about the goals set by the parliament for large carnivores in Sweden? (Per species)

The question is clearly written with the aim of giving the respondent some background to Swedish predator policy, however in doing so, the questions mixes up an evaluation of the law and policies of the Swedish parliament with an evaluation of the current policy-given levels of wolf and other carnivores. Currently I do not know what problems this may cause or how to deal with it, and consequently, I have decided to leave this open for discussion.

### **Case selection**

I have opted for a single case study concentrated on the stability of public attitudes in connection with the Swedish wolf policy and the subsequent articles will focus on different aspects of this single concept. This will allow me to focus on the basic theoretical problem of how and when attitudes change rather than getting stuck in the particulars of any given case; it will also mean that the findings of qualitative parts of my dissertation will be relevant for the quantitative parts and vice versa as the both parts deal with the same theoretical problem as well as having the same empirical focus: Swedish wolf policy.

The selection of the case is largely driven by the particulars of the Swedish wolf policy and the conflict surrounding it. Not only is this conflict one of the most vibrant environmental conflicts in Sweden right now and contains a lot of the hallmarks of a conservation versus use conflict, it is also a conflict in which attitudes and values are

central to the very understanding of both the conflict itself and the issues behind the conflict. The selection of this case also addresses a research gap in research dealing with conservation versus use conflicts as previous studies of these types of controversies mainly has dealt with protected natural areas and their detrimental effect on local infrastructure and economy, rather than carnivore policy (e.g. (Zachrisson 2009; Hovik, Sandström et al. 2010)).

### **Material**

For the bulk of my dissertation, the quantitative data will rely on two identical large scale surveys sent out in 2004 and 2009. These will hopefully also be complemented by a smaller study this year, dealing primarily with attitudes towards management options, and a third study, identical to the two first which is due to be sent out in 2014. The 2004 survey was conducted within the framework of the mountain-MISTRA project, the 2009 survey was a collaborative effort between FOMA-vilt and the Swedish EPA and the 2014 survey will be conducted and funded by the participating counties. The combined aim of these studies is to examine the attitudes of Swedes towards wildlife and nature. Parts of the surveys have been used as the basis for a number of government reports, and some previous research, however large parts are previously unused in any academic context.

### ***Scope of the survey***

The data I plan to use for the bulk of my research is derived from three identical mail surveys based on four personalized mailings (pre-warning, questionnaire, and first and second reminder) from 2004 and 2009, and hopefully also from a third survey due in 2014. The random samples are based on the Swedish national register which includes all permanent residents.

In 2004, more than 11 000 people from the 69 municipalities (150 per municipality) in six counties (Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, Norrbotten) were sampled, including a national sample of 1 067 with an overall response rate of 66%. In 2009 more than 15 000 people was sampled. The sampling on the municipal level included the same municipalities as the survey in 2004 with the addition of the 27 municipalities of Stockholm county, and the national sample contained 1 067 randomly selected respondents. Hopefully the survey in 2014 will be approximately of the same

size as the previous two. As of yet I have no information concerning the scope or specific content of the smaller survey which is due to be sent out later this fall, but hopefully I can use it to complement the data found in the larger surveys.

The two finished surveys (2004 and 2009) are made up of approximately 70 questions concerning a wide range of subjects dealing with nature and wildlife, primarily focusing on hunting, protected areas and carnivores. In addition, the surveys also contain a host of questions relating to socio-economic and political factors. Though the questions vary somewhat in format, the most common layout is a question with a graded scale of four alternatives ranging from not important to very important.

#### ***Makeup of the material***

The material's size and the broadness of the questions about nature offers a good possibility to look for attitude clusters that have to do with various environmental issues and values, which a more specialized carnivore survey would not have offered. The large battery of questions will also enable me to isolate for economic and social variables in a very quick and effective manner as all the necessary information is already in the dataset.

The two main advantages of this dataset are its size and the fact that it includes several measurement points in time. The size will ensure stable results and the repetition of the questions means that it is also possible to get a measurement of change over time with minimal delay, given that the 2014 survey is finished as planned.

The one limitation is that the dataset does not follow the same individuals over time, as the data consists of independent random samples, between the two time periods as well as the national and municipal samples; it cannot be used to track change on the individual level.

## **4 Background**

### **Wolf restoration**

Throughout history the wolf has been ruthlessly hunted in many parts of the world, this rather extreme policy has ultimately resulted in the extirpation of the wolf in many countries where it once was a part of the ecosystem. The large populations of wolves that

exist today are all in undeveloped areas with little human involvement (Ginsberg and Macdonald 1990; Mech 1995).

However, the historical aversion towards the wolf has recently begun to change as the advent of environmentalism, conservation and ecology has made the positive effects of the wolf on the ecosystem clear. In recent years there have been numerous attempts to reintroduce wolves into areas where it existed historically and today it enjoys strong legal protection in many of these areas (Boitani 1984; Schröder and Promberger 1993). This process has not been without problems and most notably there has been widespread resistance to the wolf by local populations in almost all of the areas where they have been reintroduced; typically local rural interests clash strongly with the urban conservation interests involved and many feel marginalised as a result of having a conservationist agenda forced upon them (Skogen 2001; Skogen and Kränge 2003; Heberlein and Ericsson 2008)

Wolf restoration clearly has a number of factors in common with a typical conservation versus use conflict; not only does it show the standard pattern of rural locals versus the urban majority, but it also contains elements of loss in the local community. Even though the costs are not as direct as in the case of a lumber or mining conflict it is clear that the wolf does limit the lives of rural people. It is seen as competition against hunters for prey, it kills livestock and dogs, and it instils fear in the local population (Ericsson and Heberlein 2003; Heberlein and Ericsson 2008). Thus a gain in biological diversity is paid for by the local population in exchange for universal ecological benefits. As wolves returned to the US this affect could be seen clearly as state after state underwent the same conflict pattern; locals voiced strong resistance against the federal laws that protected the wolf and there was massive conflict between those who were urban and those who were rural (Fritts 1982; Kellert 1987; Bath and Buchanan 1989; Lohr, Ballard et al. 1996; Noss, Quigley et al. 1996). The main issues were clearly aligned along rural/urban lines, and in general the anti-wolf groups were concerned with how the wolf is limiting the lives of the people in the wolf areas, while the pro-wolf lobby is generally urban groups focused on biological and ecological, rather than social effects of wolf return.

In Sweden this conflict has played out roughly the same. Rural citizens, particularly those close to the wolf areas, have been strongly opposed to conservationist agendas

driven by the national parliament and mandated by the statutes in the convention for biodiversity and the EU directives concerning it (Heberlein and Ericsson 2008; Solevid 2010). Despite staggering support for the Swedish wolf policy in the national survey, the rural areas affected still managed to make their voices heard (Ericsson and Heberlein 2003; Ericsson, Sandström et al. 2006). However measuring this urban-rural divide quantitatively has, for some reason, resulted in varying results in Sweden, leading to a shift of focus to the power relations between the two groups rather than their actual geographical localisation (Skogen and Kränge 2003; Heberlein and Ericsson 2008).

### **Swedish wolf policy**

In the year 2000 the Swedish parliament decided to introduce a new more “coherent” large carnivore policy. This was done in part to modernize and streamline the management of all the carnivore species in Sweden, but it was also done to sync Swedish legislation with international conventions, most notably the criteria for favourable conservation status specified in the EU Habitat Directive (Council Directive 92/43/EEC).

The basic idea behind this wildlife policy was to manage all the large carnivore populations in Sweden through the use of annual minimum regeneration levels, i.e. a minimum number of births per year for each species (Prop 2000/01:57). However, at the time, the wolf population was too small to make an accurate estimate of a realistic population goal. This led to the establishment of an interim goal of 20 regenerations per year, equivalent to a population of approximately 200 wolves, which was then to be re-evaluated once the population reached this level (Prop 2000/01:57).

In 2009, 22 regenerations of wolves were confirmed in Sweden (Liberg 2010), the interim goal was met, and in accordance with the decision of 2000 an evaluation process focusing on the wolves survival status was initialized (Dir.2010:65). The process of setting new goals for the wolf population is currently ongoing, and the most likely development is an increase of the interim goal to 45 regenerations, or approximately 450 individuals (SOU 2012:22).

The ultimate goal of this system is for the wolf to gain a favourable conservation standard in Sweden and thereby fulfil the criteria of the habitat directive. Currently the management of the Swedish wolf is considerably bound by the habitats’ directive and

reaching favourable conservation status would enable a much greater national autonomy in terms of wolf management. However, this is still a far off goal since inbreeding still threatens the long-term survival of the Swedish population (SOU 2012:22).

Meanwhile Sweden is in a situation where the wolf population has grown considerably since 2000 and the wolf faces no immediate threat of extirpation due to poaching, lack of prey etc., but instead due to the limitations stipulated in the habitats' directive. Hunting is only to be used as a last resort as long as an animal has not reached favourable conservation status. This has created a situation where we have a growing wolf population which increasingly comes into conflict with the human population without any effective method of reducing the number of human/wolf interactions. Meanwhile it appears that waning social acceptance is becoming a growing problem threatening the future growth of the wolf population (Linnell, Salvatori et al. 2008).

The situation is further complicated by the fact that the wolf policy is implemented in radically different ways throughout Sweden; in the north the Sámi have a special legal protection for their traditional form of reindeer herding which basically states that wolves are not compatible with reindeer husbandry and consequently are to be kept away from the reindeer herding territories, i.e. most of northern Sweden.(SOU 2012:22). Southern Sweden is small, densely urbanized and has a relatively large amount of sheep farming which has effectively hindered the establishment of any wolf packs in the south(SOU 2012:22). As a result the entire Swedish wolf population is sandwiched in the middle of these two areas and a comparatively small part of the Swedish population gets to carry the entire cost of human/wolf interaction-- a circumstance which opens up a host of potential conflict issues concerning fairness and local autonomy. This concentration of the wolf population in central Sweden has also led to isolation from other wolf populations creating problems with inbreeding as the reindeer herding grounds effectively prevent much of the migration between the Swedish wolf population and other wolf populations.

In tandem with the modernisation of the guiding principles for the Swedish carnivore policy there has also been a development towards increased local control over the wolves in the wolf areas. This was done partly to combat the rising feelings of frustration and in part to increase the legitimacy and efficiency of the policy and its implementation

(Cinque 2003). The most notable part of this process is that regional county administrative boards have taken control over local protective hunts up to a certain amount per year, a task which in the old system was an exclusively federal affair. This can be seen as an attempt at legitimacy building through increased local autonomy and participation in line with the current trend of governance inspired reforms and attempts at more horizontal administrative structures within the state. The question is whether or not this will have any real effect considering that the rather strict rules given by the habitats' directive (SOU 2012:22) leaves little room for local decision making.

## **5 Discussion/Conclusion**

The wolf issue can be said to be an interesting political problem as it contains a number of dimensions which makes it socially relevant. It is an issue which brings out cleavages in society, between rural and urban, as well as between powerful and powerless groups, and in doing so connects with theoretical discourses concerning local governance, autonomy and the handling of ecological resources. This makes it a well suited case to study the more theoretical question of attitude stability, as attitudes plays a major role in the literature of many of the surrounding fields, and previous research offers contrasting claims about the future stability of wolf and wolf policy attitudes.

Studying wolf policy also offers a chance to make a more practical contribution in terms of policy evaluation as the current wolf policy is geared towards increasing wolf acceptance through co-management solutions, and thus measuring how co-management affects temporal attitude shifts represents both a practical and a theoretical contribution to the field of carnivore management.

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