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Editor's Note

It is important to welcome change that leads to progress. The 2014 merger of the Norwegian University of Life Sciences with the Norwegian School of Veterinary Science offers such change. Guided by the vision *Knowledge for Life*, the "new" university widens the academic scope and opportunities for interdisciplinary collaboration. To emphasize the journal's commitment to showcasing a range of disciplines at the Norwegian University of Life Sciences (NMBU), we are pleased to announce that the former *UMB Student Journal of International Environment and Development Studies* has launched Volume 4 under a new name, the *NMBU Journal of Life Sciences*.

The new journal name reflects the interdisciplinary nature of life sciences at NMBU, and demonstrates how the journal continues to evolve. Volume 4 presents works by eleven authors from different fields of study – international relations, development and environment studies, ecology, biochemistry, biomechanics, energy physics and renewable energy. This volume also includes shorter opinion-based articles, under the new heading *Letters*, which encourages students to voice their educated views on current issues. Four *Letters* offer comments on endocrine-disrupting chemical policies, hydraulic fracturing, combating Somali piracy, and the electric car's sustainability. In other words, our original purpose to showcase exemplary student writing at the NMBU remains, but Volume 4 also offers new and enriching dimensions.

Volume 4 would not be possible without voluntary support. First, I would like to thank all the student volunteers on the Editorial Board whose hard work and engagement have made it possible to publish yet another volume. On behalf of the Editorial Board, I would like to thank the Review Board for reviewing submitted manuscripts. In addition, thanks to Stein R. Moe for recommending papers and Connor Cavanagh for offering advice and comments in the selection process. The Writing Centre staff – Sari Cunningham, Neil Davey, Afshan Bibi and Paul Beaumont – for providing valuable writing advice to the selected authors. The *Journal* is also grateful for Kyra Alexandra Zemanick's keen eye for detail, as Copy Editor. Åslaug Borgan and Berit Hopland for their patience and dependability in assisting us with design and printing, and of course our Faculty Advisor, William Warner for his invaluable dedication and advice. Finally, we want to direct a special thanks to NMBU's Dean of Academic Affairs, Ole-Jørgen Torp; the Library Director, Geir Arne Rosvoll; and Rector Mari Sundli Tveit, for support, assistance and encouragement.

Editor-In-Chief

Eva Petershagen Åsbø



Photo: Akari O. Izumi Kvamme

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Photo: Henriette Wathne Gelink

Letter

Endocrine-Disrupting Chemicals Call for Policy Change

Dafne Lemus

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Rachel Carson's (1962) *Silent Spring* not only gave birth to environmental consciousness, her influential study of pesticides generated regulatory policies of chemicals. For the past five decades these policies have been based upon ecotoxicology – the multidisciplinary study of how biological organizations, from molecules to ecosystems, are affected by toxic chemicals.

The effects of endocrine- or hormone-disrupting chemicals found in a broad range of consumer products, including toys, cosmetics and food containers, remain questionable and worrisome. To assess the public health threat hidden in "legal exposures", we must expose what the current regulation of these chemicals relies on – dosage.

What is known as the toxicology model for chemical regulation has determined the safety of the more than 87,000 potential endocrine-disrupting chemicals in the market (Vogel, 2004). Some of the most common are the older generation DDT and PCBs¹ and the more recently debated phthalates, parabens, and Bisphenol-A. The toxicology model assumes that the safety of a chemical is only related to the magnitude

(PCB).

of exposure. However, during the last two decades, research in the field of endocrinology has challenged the validity of the toxicology model for the evaluation of chemicals that interfere with hormone action. In order to protect human health, current regulation of endocrine-disrupting chemicals should instead be based on endocrine principles such as low-dose exposures and long-term effects.

Endocrine-disrupting chemicals show adverse low-dose effects that cannot be detected in toxicology studies, which only examine the effects that take place at high-dose levels. The guiding assumption in toxicology is that the relationship between chemical exposure and health effect is linear - with negative health effects increasing proportionally to the exposure (Myers, Zoeller & vom Saal, 2009). Consequently, toxicologists assess chemical safety by testing only for high chemical doses since they expect lower ones to be less detrimental. However, research in endocrinology shows that the relationship between exposure and effect for endocrine-disrupting chemicals, as for natural hormones, is non-linear (Vandenberg et al., 2012). This means that the standard use of high exposure scenarios to predict low-dose effects is inappropriate for endocrine disruptors,

of a chemical is only related to the magnitude

1 The pesticide Dichlorodiphenyltrichloroethane (DDT) and the coolant fluid and electrical insulator Polychlorinated Biphenyl

and that low doses – which are in the range of current human exposures – must be tested on their own. Endocrinology further reveals that the endocrine system can respond to exceptionally low amounts of hormones, but is shut off (or simply overwhelmed) by unexpected large amounts (Diamanti-Kandarakis et al., 2009). This "protective" mechanism explains why low doses can be more dangerous than high doses and why harmful effects that take place at low doses are not observed at higher levels.

Moreover, there is usually a long time – up to several generations - between exposure to endocrine-disrupting chemicals and when the effects become evident. Endocrine-disrupting chemicals are particularly dangerous during critical periods of gestation when the fetus depends on precise hormonal signals to guide proper development (Myers et al., 2009). Low-dose exposures during this time can result in permanent effects that only become apparent during adulthood. The long delay between time of exposure and manifestation of the effect further contradicts toxicology testing where exposed organisms are only assessed for immediate changes. In addition to these long-term health consequences, the endocrine-disrupting potential can also be passed to future generations, a mechanism referred to as multigenerational effects (Diamanti-Kandarakis et al., 2009). These indirect mechanisms not only depend on direct hormonal action but also on complex DNA modifications that are beyond the scope of toxicologists.

However, toxicologists challenge the adequacy of endocrine research for regulatory purposes and highlight that no single study, by itself, can prove the overall low-dose, long-term theory. For example, Rhomberg and Goodman (2012) accuse endocrinology results for lacking statistical significance and sufficient experimental details to help judge their adequacy. In their view, results are hard to replicate and are inconsistent among different studies. Consequently, they claim that policy makers should not base chemical regulation on endocrinology research. This claim also questions the nature of the evidence. Endocrinologists study long-term effects in specific areas, using different methods and

measuring different effects than toxicologists. Endocrinology embraces several medical and biological sub-specialties that require the use of state-of-the-art assays, specific equipment, and not least several different types of expertise. In turn, their studies *are* deemed more difficult to replicate and quantify.²

During the last decade, different regulatory agencies – such as the European Food Safety Authority (EFSA) - have been developing collaborations and interactions between the two contending fields: toxicology and endocrinology (Harding et al., 2006). The objective has been to promote consensus and to establish harmonized protocols to test and evaluate the toxicity of endocrine-disrupting chemicals. Yet, this task has proved to be harder than originally thought, as the scientific dispute politicizes. With more than 5,000 studies on endocrine-disrupting chemicals published today (Hengstler et al., 2011) – the large majority of which is carried out by endocrinologists – it seems unreasonable to ignore such a vast amount of evidence. Results from this research converge to implicate that there are harmful reproductive, developmental, neurological, and immune effects in humans and wildlife (Diamanti-Kandarakis et al., 2009). Failure to include these results in policymaking may mean that important detrimental effects go unnoticed and that knowledge gaps are not identified (Beronius, Ruden, Hakansson & Hanberg, 2010). This omission compromises the reliability of the safety assessment of endocrine-disrupting chemicals. Thus, instead of evaluating single studies, it would be beneficial to use a weight-of-evidence approach to evaluate all evidence that is relevant to support the endocrinology theory. The strength of the publications could then be considered as a whole and could catalyze urgent regulatory action.

The endocrinology approach has shown

² For example, Habert has shown that human and animal fetal exposure to Bisphenol-A impairs masculinization of genitalia, increases the risk of testicular cancer, and harms sperm production on the exposed subject and later on, on its offspring (N'Tumba-Byn et al., 2012). Toxicologists have deemed this study not replicable due to the apparent difficulty to obtain the same experimental specimens, expertise, and equipment. It has therefore also been excluded by several regulatory agencies.

the inadequacy of the toxicology model to address the hormonal effects of chemicals. Since toxicity testing is based on flawed assumptions, it leads to false estimates of chemical safety, in particular when high-dose exposure is used to estimate low-dose safety. While the scientific dispute remains unsettled, in Scandinavia, Danish authorities have – on the basis of available knowledge – decided to favor the public rather than the industry (The Danish Consumer Council, 2012). They have enacted stricter policies in accordance with the endocrinology approach to

protect vulnerable segments of the population.³ Norway, on the other hand, still relies on the chemical regulation at the EU level, which (in its passiveness) tacitly embraces the toxicology model. If this model continues to guide policymaking, and endocrine-disrupting chemicals are not regulated in accordance with low-dose and long-term effects, public health will continue to be threatened.

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Bisphenol-A and certain parabens have been banned from products intended for children under three years of age and several phthalates found in everyday plastic products.



Photo: Ida Margrethe Brennodden

What Shapes Human Attitudes Towards Wolves (*Canis lupus*)?

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Abstract: In the last 100 years, wolf management has shifted from attempts to eradicate them in the late nineteenth and early twentieth century, to attempts to preserve them in the latter half of the twentieth century. Human attitudes toward wolves are diverse and depend on many social factors. Among these important predictors are age, level of education, gender, social bonds, community size, occupation, and hobbies. Additionally, people living close to wolves tend to be more negative toward the species' presence. People often tend to express a fear of wolves, but recent studies show that the risk wolves pose to humans has been greatly exaggerated. Attitudes may also be affected by the applied management strategies. Based on the viability of the current Scandinavian wolf population, this article argues that the Scandinavian wolf population should be restored to a high enough level in which regulated harvest policies could be implemented.

Wolves (Canis lupus) were once distributed throughout the northern hemisphere and inhabited all areas where large ungulates roamed (Mech, 1995). However, intense human persecutions eventually lead to the extinction of wolves from most parts of Europe (Breitenmoser, 1998; Linnell et al., 2002; Wabakken, Sand, Liberg & Bjärvall, 2001). As the human population in Europe expanded, humans hunted wolves because they threatened livestock and competed with human communities for wild game species (Breitenmoser, 1998; Treves & Karanth, 2003). Throughout Europe, local authorities encouraged the persecution of wolves by paying bounties for each killed wolf (Breitenmoser, 1998). Wolves were ruthlessly hunted with the aid of increasingly effective firearms, traps, and poisons (Mech, 1995).

In Scandinavia, the decimation of wolves intensified during the ninetieth century and last-

ed until the population was functionally extinct in mid 1960s (Wabakken et al., 2001). However, in 1983, a pair of wolves reproduced in south-central Sweden (Wabakken et al., 2001). Both wolves originated from the eastern Finnish-Russian population (Vila et al., 2003). Despite this colonization, the population never exceeded ten individuals until 1991, when a sudden increase in population size was recorded (Wabakken et al., 2001). This increase was due to the arrival of another immigrant who reduced inbreeding and increased the population viability (Vila et al., 2003). The current Scandinavian wolf populations consist of 258-329 individuals (Wabakken et al., 2012).

The reestablishment of wolves in Scandinavia has sparked debate. The human-wolf conflict arises partially because of the wolves' protein rich diet and large home ranges, which continuously drive them in contact with humans, who have relatively similar resource and habitat use (Treves & Karanth, 2003). Wolves normally prey on ungulates, but can occasionally prey on human livestock (Mech, 1995). Additionally, wolves may even attack humans under rare circumstances (Linnell et al., 2002; Linnell et al., 2003; McNay, 2002).

The human-wolf conflict has historically stirred strong feelings in human communities, and the debate is largely driven by assumptions and falsehoods, with interest groups portraying wolves as either harmless or beasts (Linnell et al., 2002). However, recent studies have explored the actual danger that wolves pose to humans (Linnell et al., 2002; Linnell et al., 2003; Løe & Røskaft, 2004; McNay, 2002), and what shapes human attitudes towards wolves (Bjerke & Kaltenborn, 1999; Bjerke, Vittersø & Kaltenborn, 2000; Karlsson & Sjöström, 2007; Kleiven Bjerke & Kaltenborn, 2004; Naughton-Treves, Grossberg & Treves, 2003; Røskaft, Händel, Bjerke & Kaltenborn, 2007; Vittersø, Kaltenborn & Bjerke, 1998). Attitudes can be defined as all the behavioral beliefs that are influential to a person and can be combined to perform a belief based measure, or the positive or negative predisposition to behave in a certain way (Beedell & Rehman, 1999).

The purpose of this paper is three-fold: firstly, it examines what shapes human attitudes towards wolves, secondly, addresses how these factors are related, and thirdly, suggests how this can be incorporated into management strategies. This paper examines existing literature to attempt to answer these critical questions on human-wolf interactions.

Conceptual framework

Recent studies have focused on the theory of wildlife-value orientations (i.e. that sets of basic beliefs about wildlife affect people's attitudes and behavior) (Sijtsma, Vaske & Jacobs, 2012; Teel & Manfredo, 2010). These studies have focused on the presence of a mutualism-traditionalist continuum among the public (Bjerke & Kaltenborn, 1999; Sijtsma et al., 2012; Teel & Manfredo, 2010). People with a mutualistic

value orientation view wildlife as capable of relationships of trust with humans and may even view wildlife as an extended family (Teel & Manfredo, 2010). Therefore, they are less likely to support lethal control of wildlife (Sijtsma et al., 2012). On the other end, people with a traditionalist view of wildlife have a more domination view of nature in which wildlife should be managed for human benefit (Teel & Manfredo, 2010). Lethal control may therefore be more highly accepted among such groups (Sijtsma et al., 2012).

Bjerke and Kaltenborn (1999) found that wildlife managers and research biologists had a more ecocentric view (i.e. nature-centered, focused on preserving the environment) than farmers, who had a more anthropocentric view (i.e. human-centered, focused on using the environment for the benefit of humans). Such diversity in public opinions makes management decisions particularly difficult, and increased knowledge of the most common views among the public may aid wildlife managers in their effort to effectively manage wildlife populations (Teel & Manfredo, 2010).

Human attitudes

Human attitudes (i.e. a person's perspective towards a specified target) toward wolves in Norway are complex and depend on a series of factors such as age, gender, level of education, social bonds, occupation, and hobbies (Bjerke & Kaltenborn, 1999; Karlsson & Sjöström, 2007). Røskaft et al. (2007) suggest "most attitudes towards large carnivores are formed at least partially by the assessment of different consequences of having them in the vicinity". In contrast, Karlsson and Sjöström (2007) argue that indirect experiences with wolves, rather than direct negative experiences, forms negative attitudes. This relationship seems evident since the attitudes communicated by friends, peers, and enemies strongly affects a person's individual opinions (Karlsson & Sjöström, 2007).

In general, people in an urbanized environment tend to support the presence of wolves (Kleiven et al., 2004; Røskaft et al., 2007) and have adopted a more distant and romantic view

of large carnivores (Breitenmoser, 1998). This contrasts the view of the wolf as a threat to livestock and harvestable wildlife, which is common in many rural communities (Breitenmoser, 1998). A study conducted by Karlsson and Sjöström (2007) shows that human attitudes toward wolves are dependent on the distance to the nearest wolf territory. They find that people who live within 200 kilometers from a wolf territory have significantly less positive attitudes toward wolves than people living more than 200 kilometers from the closest wolf territory. This difference in attitude arguably stems from differences in indirect experiences with wolves (Karlsson & Sjöström, 2007; Naughton-Treves et al., 2003). Røskaft et al. (2007) find that negative attitudes toward large carnivores correlate with how many large carnivores are believed to have resided in the vicinity of a community, not how many that actually are present.

Negative experiences with wolves are usually shared within social groups and media (Karlsson & Sjöström, 2007; Linnell et al., 2003), and such negative occurrences are experienced more often within wolf territories. Naughton-Treves et al. (2003) find that "an individual's cohort (i.e. identity or occupation as bear hunter, livestock producer, or general resident) and education level were strongly significant predictors of tolerance for wolves" (p. 1507). Bear hunters were less tolerant than livestock producers, who are less tolerant than what general residents are.

Several studies have shown that education level correlates with positive attitudes toward wolves (Kleiven et al., 2004; Naughton-Treves et al., 2003; Røskaft et al., 2007). Presumably, education may broaden a person's perspective on wolves and increase tolerance (Naughton-Treves et al., 2003). However, this depends on the type of education. In contrast, lack of education may result in lower tolerance, since contact with fewer individuals and less diverse attitudes will influence a person's opinions. In other words, a person's social group will largely determine the person's attitudes towards wolves. This may also explain why younger people have a higher tolerance level than older people, since modern

society gives younger people more opportunities to obtain information from a wider spectrum of sources, such as social media and the internet.

Røskaft et al. (2007) have investigated several variables that affect human attitudes toward large carnivores. For instance, people with the strongest fear toward large carnivores also tend to express the most negative attitudes. This may explain why people are more negative toward wolves closer to wolf territories than further away (Karlsson & Sjöström, 2007; Kleiven et al., 2004). People who fear wolves are positive toward wolves as long as they perceive the risk of encountering a wolf as small. However, when the risk of encountering wolves is perceived as large, an enhanced fear increases negative attitudes toward wolves.

The fear of wolves may also be strengthened by the risk of financial loss (Kleiven et al., 2004). People expecting the highest financial loss from wolves tend to express the most negative attitudes toward their presence (Røskaft et al., 2007). Presumably, people with wolves in their vicinity expect larger financial losses from wolves than people further away from wolf territories do. This relationship is further strengthened by occupation (i.e. whether or not the occupation includes livestock) and community size (i.e. less chance of financial loss in an urbanized community).

Røskaft et al. (2007) suggest that most attitudes toward large carnivores are formed by assessing the consequences of having them in the vicinity. This may explain the "distance from wolf territory" pattern discovered by Karlsson and Sjöström (2007), as higher consequences may be perceived closer to wolf territories. The strongest predictor for negative attitudes is the fear that carnivores might inflict harm on human beings (Røskaft et al., 2007), which may explain negative attitudes toward wolves and bears (Ursus arctos) than they are toward lynx (Lynx lynx) and wolverines (Gulo gulo) (Kleiven et al., 2004). This pattern indicates that the perceived threat to humans is more important in affecting human attitudes than the potential to kill livestock, since the latter species kill considerably more livestock than the former but are genuinely more accepted by the public.

Vittersø et al. (1998) describe how among Norwegian sheep farmers, the level of attachment to their animals affects their attitudes toward large carnivores. Farmers with a stronger attachment to their animals have more negative attitudes toward large carnivores. Additionally, whether or not someone grew up with livestock adversely affects their attitudes toward wolves.

Several studies have shown that age can predict attitudes towards wolves (Kleiven et al., 2004; Røskaft et al., 2007). Overall, younger people tend to be more positive to wolves than older people are (Kleiven et al., 2004). Kleiven et al. (2004) find that people younger than 55 years are significantly more negative toward wolves than people younger than 36 years are. They suggest that this observation may be because older people are more likely to have grown up with livestock and in rural areas (i.e. smaller community size), and old attitudes may therefore still be prevalent (Røskaft et al., 2007). Additionally, people over 55 grew up, at least partially, during the phase in which wolves were under heavy persecution. This may imply that they have been raised with a different set of values than those after 1972, when wolves were legally protected in Norway (Wabakken et al., 2001). This is supported by Teel and Manfredo (2010), who found that people with a traditionalistic view tend to be older than people with a mutualism view are.

Røskaft et al. (2007) argue that older people may experience more fear of wolves because they are less able to defend themselves from wolves. However, in accordance with ideas on inclusive fitness (Dawkins, 2006), older people may fear more for the lives of their family members, due to a larger family group and higher investment in them, than a younger person would. This prediction is, at least partially, in accordance with the findings of Røskaft et al. (2007) that suggest that concern for themselves and their families explains how far from home people can accept the presence of large carnivores.

Kleiven et al. (2004) and Røskaft et al. (2007) find that men express more positive attitudes toward large carnivores than women do. Røskaft et al. (2007) suggest that this links to fear, since women report a higher level of fear

than men. Additionally, Teel and Manfredo (2010) find that people with a traditionalistic view are more likely to be male.

People who feel relatively powerless toward events happening in their local surroundings are generally less positive toward large carnivores (Bjerke et al., 2000), and wolves are often viewed as symbols for unwelcome federal intervention (Naughton-Treves et al., 2003). For instance, if wolves attack a farmer's sheep, the farmer may feel relatively powerless due to the legislation that protects wolves. These legislations are usually forced upon farmers from an external source, such as central governments. Such conditions may invoke a feeling that external forces (i.e. external locus of control) control the current situation. Bjerke et al. (2000) find that sheep farmers exhibit a more external locus of control than wildlife managers and research biologists and it is associated with negative attitudes towards large carnivores. In the most severe cases, farmers will only tolerate a certain amount of external control. This may explain why poaching accounts for approximately half of the total mortality in the Scandinavian wolf population (Liberg et al., 2012).

Fear of wolves

Negative attitudes toward wolves correlate with the fear of wolves (Røskaft et al., 2007). The presence of fear toward wolves in the public has resulted in research focusing on quantifying and analyzing wolf attacks on humans (Linnell et al., 2002; Linnell et al., 2003; Løe & Røskaft, 2004; McNay, 2002).

Linnell et al. (2003) have summarized the number of fatal wolf attacks on humans in Scandinavia. In the last 300 years, one person in Norway, 16 in Sweden, and 77 in Finland were killed by wolves. Most victims were below the age of 12 (85 percent), and wolves usually targeted single individuals. Interestingly, the attacks were clustered in time and space. For example, twelve of the fatalities in Sweden happened within a three-month period within the same area. The attacks ceased when a single wolf was shot. Notably, the wolf had been captured as a pup and raised in captivity for three to four years before

it had escaped. Presumably, the wolf had been habituated to humans; and lacked the ability to hunt ungulates due to its lack of training with conspecifics. A large proportion of the fatalities in Finland seemed to follow the same patterns (Linnell et al., 2003).

McNay (2002) reviewed the history of wolf aggression towards humans in Alaska and Canada and found no cases of fatalities between 1900 and 2000. However, 51 cases of wolf aggression toward humans were reported, of which 18 were considered unprovoked. McNay (2002) notes a marked increase in the number of encounters during the period, but hypothesizes that this is due to the increased use of national parks and a general increase in the human population. Most aggressive behavior is due to agonistic responses (i.e. arises from a conflict between aggression and fear), which are usually provoked when wolves act in self-defense or in the defense of conspecifics. Aggressive behavior may also be triggered by rabies or by the presence of domestic dogs (McNay, 2002).

Linnell et al. (2002) divide wolf attacks on humans into three different types of attacks: 1) attacks by rabid wolves, 2) predatory attacks, and 3) defensive attacks where wolves are cornered and attack humans in order to escape the situation. On a global scale, rabies accounts for the majority of the attacks, while predatory attacks are rare. Additionally, a considerable proportion of the predatory attacks may have been caused by hybrids with domestic dogs or by captive wolves (Linnell et al., 2002; Linnell et al., 2003).

Linnell et al. (2002) identify four factors that are associated with wolf attacks on humans. Firstly, a vast majority of the attacks are related to rabies. Secondly, habituated wolves are likely to attack defensively or predatory. This seems evident for several of the cases described by McNay (2002). Thirdly, in certain cases, humans may provoke wolves that may lead to defensive attacks. Fourthly, predatory attacks often occur in highly modified environments with little or no natural prey for wolves. As a result, wolves depend heavily on garbage and livestock as food sources. Additionally, children are often unattended and used as shepherds. A

poor human population and a low accessibility to firearms, indicating that wolves are bolder also characterize these environments (Linnell et al., 2002). McNay (2002) presents a slightly different picture in which attacks or conflicts are associated with an increasing human population and an increased use of national parks by humans, thereby increasing the chance of encounters.

These aspects provide some interesting points concerning the fear of wolves in Scandinavia. Firstly, the risk of being attacked by a rabid wolf is extremely low in Europe due to extensive vaccination regimes. In the last 50 years, only five people have been killed and 33 attacked as a result of rabies. In contrast, 733 people were attacked in the eighteenth century (Linnell et al., 2002). Secondly, habituation does not necessarily lead to attacks, but aversive actions should nevertheless be considered to reduce the chances of habituation (McNay, 2002). Additionally, experimental approaches on radioequipped wolves indicate that wolves moved away from an approaching human in all 34 experimental events (Karlsson, Eriksson & Liberg, 2007). Thirdly, increasing information directed toward human communities can prevent wolf habituation. Fourthly, the conditions described by Linnell et al. (2002) are currently not evident in Norway today. The natural prey base has been restored to record high numbers, children are not often used extensively as shepherds, poverty has been greatly reduced, and the heavy persecution has led to strong selection against "fearless" wolves (Linnell et al., 2002). During the last 50 years only eight human deaths caused by wolves have been documented in Europe, Russia, and North America, despite a combined population of approximately 120 000 wolves (Linnell et al., 2002). In other words, the fear that many people hold toward wolves seems unjustified and based mostly on folklore and falsehoods.

Management strategies

Human attitudes toward large carnivores may also be affected by current management policies (Bjerke et al., 2000; Naughton-Treves et al., 2003), and Linnell, Swenson and Andersen, (2001) states that "conservation of large carnivores is possible at high human densities as long as the management policy is favorable" (Linnell et al., 2001). Treves and Karanth (2003) have reviewed three management strategies that had been utilized in the past. Among the most extensive used strategies is eradication (Breitenmoser, 1998), which is designed primarily to reduce the negative economic costs associated with large carnivores. However, despite relatively low financial costs, this type of management is criticized from conservation groups and is politically costly (Treves & Karanth, 2003). Additionally, recent studies have uncovered the ecological importance of large carnivores, and their removal may result in unwanted ecological side effects (Hebblewhite et al., 2005; Terborgh et al., 2001). However, since the current Scandinavian wolf population stems from long-range dispersal from the eastern Finnish-Russian population (Linnell, Brøseth, Solberg & Brainerd, 2005; Vila et al., 2003), certain social groups have suggested that the current wolf population should be exterminated since it is non-native. A governmental incentive to reduce wolves may result in the spread of negative attitudes among the public, as emphasis is placed on the detrimental effects of wolves.

The second alternative, regulated harvest, aims to control the levels of large carnivores to ensure a sustainable harvest (Treves & Karanth, 2003). It usually involves indirect, inexpensive monitoring techniques such as those used for the Norwegian moose population (Solberg & Sæther, 1999). Regulated harvest typically places control in local hands, which may in turn give local communities a sense of power and determination (i.e. community-based natural resource management) (Bjerke et al., 2000; Linnell et al., 2001). Additionally, licensed hunting may make certain parts of the community view wolves as a resource, rather than just a cost. Lynx kill considerably more livestock than

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wolves, but wolves stir far more controversy. Therefore, lynx may be more accepted, because they are open for licensed hunting. However, the current Scandinavian wolf population is small (Wabakken, Maartmann & Strømseth, 2012) and suffers from several detrimental genetic effects from inbreeding (Liberg et al., 2005; Räikkönen, Bignert, Mortensen & Fernholm, 2006; Vila et al., 2003). A regulated harvest would thus be considered controversial and unsustainable.

The third alternative, preservation, aims primarily at restoring endangered populations. But the process of proper preservation is costly since it "(...) requires heavy investments of personnel, time, and resources in interaction with the public because managers have to demarcate and patrol boundaries, interdict and prosecute poachers, engage community participation, or verify damage claims" (Treves & Karanth, 2003, p.1494). Furthermore, many governments compensate farmers for livestock that wildlife preys upon. Naughton-Treves et al. (2003) found that all survey respondents approved of compensation as a management strategy. However, compensation schemes do not necessarily have the intended effect of increasing tolerance.

Management recommendations

Considering the current size of the Scandinavian wolf population (Liberg et al., 2005; Wabakken et al., 2012), the most favorable management strategy would be to implement preservation policies to increase the population to a viable level thorough monitoring and information campaigns. As the population expands, regulated harvest policies could be implemented to increase tolerance in a wider array of social groups. Such a management strategy would presumably increase tolerance through increased education and would emphasize how the wolf is a resource with recreational value and positive ecological effects.

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Photo: Henriette Wathne Gelink

Letter

Violent Measures are not Sufficient to Combat Somali Piracy

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In 2008, piracy attacks increased on Somalia's coast, and the international community started to portray piracy as a threat towards international security. Following UN resolutions, the international community launched military operations to disable or destroy pirate ships in the region (UN Security Council, 2013). In addition, the use of private security companies (PSCs), which employ armed guards, have also gradually increased since 2008. When taken together, the UN and the West publicize these violent measures to explain the recent decrease in piracy attacks. In 2011, in particular, there were three times as many attacks as in 2012 (ICC International Maritime Bureau, 2013). Yet despite the apparent correlation between an increase in the use of violent measures and a decline in piracy attacks, utilizing violent measures is not an effective long-term solution for combating piracy offshore from Somalia.

Violent measures for combating piracy may instead increase violence, because pirates change their *modus operandi* depending on the measures used to fight them (Struwe, 2012). Somali pirates traditionally kidnap for ransom, and they sometimes keep their hostages as long as several years, but rarely kill them (Hansen, 2009). The pirates will not release their prisoners until they receive their ransom money. Violent

countermeasures are threatening, and potentially cause pirates to jeopardize the hostages. However, this method speeds up the ransom negotiations, as companies want their hostages to return home alive. For example, Nigerian pirates tend to be more violent than what those in Somalia are, and the use of private guards has further increased the violent reactions (Pérouse de Montclos, 2012). There are signs that a similar trend is developing in Somalia (Apps, 2012).

Violent measures combat the symptoms, not the causes of piracy; consequently, violence is a short-term reaction rather than a solution. The weakness of the Somali state and the country's poverty are two causes for Somali piracy (Klein, 2013). Without combating such root causes, piracy will remain latent, and pirates will adapt, for instance, by moving their activity to new areas. This process has already become apparent, as pirates are no longer exclusively operating in the northern, eastern, and southern coasts of Somalia. According to the International Maritime Bureau as of 2012, attacks have been reported further south along the coast toward Madagascar and further east into the Indian Ocean and the Arabian Sea (ICC International Maritime Bureau, 2013). A decrease in attacks in one area is not much of an accomplishment if attacks simultaneously increase in other areas. If the pirates

move, combative operations must also move, or expand. Otherwise, the problem will continue to reappear.

Proponents of military operations argue that these measures help control vital transportation routes to Europe. International marine forces patrol the Internationally Registered Transit Corridor, which was established in 2008 (ICC International Maritime Bureau, 2013). The patrolling of the transit corridor is an effective countermeasure, as ships are protected on their routes and are able to carry cargo safely through the Bab-el-Mandeb Strait. Although shipping vessels could change their routes, doing so would be an expensive and time-consuming alternative (Chalk & Hansen, 2012). Becoming a pirate is only rational if the possible income overrides the costs of engagement (Klein, 2013). Military presence may increase the costs to such an extent that piracy is no longer a viable form of income, thus causing the number of piracy attacks to decrease. Although military presence may decrease piracy attacks, there are alternative non-violent measures in practice that may be more effective than long-term solutions for combating Somali piracy.

Since the international military response to piracy, non-violent countermeasures have been implemented and may contribute to the decrease in piracy attacks. Best Management Practices (BMPs) have been developed by the shipping industry and consist of a number of non-violent actions. The focus of BMPs is evasive action at sea through the transit corridor and target hardening (i.e. bulletproof glass). BMPs became common after 2001, and have been adjusted since (Hansen, 2012). Hansen (2012) argues that these countermeasures have successfully deterred piracy and can help explain the recent drop in piracy attacks outside Somalia.

In conclusion, while violent measures may explain the recent drop in piracy attacks outside Somalia, this explanation is not sufficient. Pirates react to violent countermeasures by changing their behaviour, thus the decline in attacks is only temporary. Also, military operations and PSCs do not combat the root causes of piracy; therefore, neither are effective long-term solutions. Alternatively, non-violent countermeasures are long-term effective solutions, with minimal risk of harming innocent people.

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Photo: Kjersti Kanestrøm Lie

We the People? Political Populism in the UK and Norway

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Abstract: This paper provides an analysis of the discourse employed by the party leaders of two populist political parties: the United Kingdom Independence Party (UKIP) and the Norwegian Progress Party (FrP). The most recent party conference speeches by the leaders of the two parties are analysed to address the following question: how do UKIP and FrP use identity and difference to further their political aims? Three major representations are identified: immigration, libertarian ideology, and anti-establishment views. The paper concludes by noting the similarity of the two speeches and suggests areas for further analysis.

Since the onset of the Eurozone crisis in 2009, the rise of populist movements across Europe has been widely observed. Two such populist parties with electoral success are the Norwegian Progress Party (Fremskrittspartiet or FrP) and the United Kingdom Independence Party (UKIP). In October 2013, FrP gained power as part of a coalition government for the first time in their 40-year history. UKIP's continued rise in the polls and recent electoral successes has led Professor John Curtice to conclude that UKIP present the "most serious fourth party incursion" into English politics since the Second World War (as cited in Watt, 2013). With FrP beginning their first term in government and UKIP voicing their intention to win the 2014 European elections, this is a particularly appropriate moment to analyse the identity and discourse of the two parties. UKIP's strong rhetoric has affected the main coalition partner in the UK, with Conservative politicians strengthening their stance on immigration. Both UKIP and FrP consider

themselves libertarian, and focus on lowering taxes, reducing immigration, and shrinking the government. Norway and the UK have many differences, but also some important similarities: a recent rightwards shift in voting patterns, polarising debates about immigration, and an identity often described as "with Europe, but not of it", to quote a figure of speech significant to both countries.1 This article employs discourse analysis to answer the following research question: how do UKIP and FrP use identity and difference to further their political aims? This is important because divisions between constructions of "us" versus "them" or "self" versus "other" - be it within or between nations or other economic, religious or ethnic groups – continues to be a major political challenge.

In order to answer the research question, the article investigates the most recent party confer-

¹ Winston Churchill made this famous and widely quoted remark about British identity in 1930

ence speeches by Siv Jensen and Nigel Farage, the respective leaders of FrP and UKIP. These speeches are important because they both precede important elections: the Norwegian general election in September 2013 and the European elections in May 2014. The article proceeds by setting out some theoretical and methodological foundations before moving to analyse and map out the key representations within the two speeches. The article concludes by noting the speeches' similarities in themes, tone, and language.

Theory and method

Discourse analysis "has become part of the accepted canon of approaches when analysing international politics" (Diez, 2001, p. 5). As a method, it enables scholars to investigate and therefore understand what Bartelson (1995) describes as "clashes between different versions of political truth" (p. 4). Populist parties such as UKIP and FrP often espouse political platforms that differ from their more mainstream opponents, and analysing their particular versions of political truth should prove illuminating.

Neumann (2008) notes that discourse "constrains how the stuff that the world consists of is ordered, and so how people categorize and think about the world. It constrains what is thought of at all, what is thought of as possible, and what is thought of as the 'natural thing' to do in a given situation" (p. 62). Shapiro (1989) makes a similar point when describing the difference between language and discourse: "poststructuralist modes of analysis emphasize 'discourse' rather than language because the concept of discourse implies a concern with the meaning- and value-producing practices in language rather than simply the relationship between utterances and their referents" (p. 14).

One common discursive practice is the demarcation of "self" from "other" (Neumann, 1996). In analysing discourse for such representations of self and other, Hansen uses a methodological technique of looking for two processes that work together to construct identity: a positive process of linking and a negative process of differentiation (Hansen, 2006). The "other" in this contest does not necessarily have to be exter-

nal, such as another state. The "other" might also be internal, be it immigrants or criminals. In the case of populist parties, the "other" can include political elites, who in their rhetoric are detached from and working against the best interests of the people these parties claim to represent. It is also worth noting that not only the populist parties form discursive identities based on "self" and "other" claims. For instance, the Labour parties in both countries historically formed their identities in opposition to the capitalist class, while the greens in Europe form their identity in opposition to parties who see economic growth as the ultimate goal. However, due to the scope of this article, the technique will be deployed solely to analyse how UKIP and FrP seek to construct particular versions of British and Norwegian identity, respectively.

A second technique as described by Hansen (2006) analyses the speeches for references to space, time, and ethics as "analytical lenses that bring out the important political substance of identity construction" (p. 46). The spatial dimension involves "the construction boundaries and thereby the delineation of space" and "might also be articulated as abstract political space, boundaries, and subjectivities" (Hansen, p. 47). The temporal dimension includes "themes such as development, transformation, continuity, change, repetition, or stasis," with differentiation often in terms of "progress" versus "intransience" (Hansen, p. 48). Finally, the ethical dimension is important because difference can be expressed in terms of lower ethical standards such as criminality or untrustworthiness. These considerations might overlap. For example, Nigel Farage often refers to "criminal Romanian gangs," a representation which takes in both the ethical and spatial dimensions (The Spectator, 2013).

These two techniques identify key patterns within the discourse and compare the two speeches in a systematic and valid manner. The two keynote speeches from Nigel Farage and

Siv Jensen² were at party conferences, annual milestones in the political calendar for all parties – populist or not (The Spectator, 2013; Fremskrittspartiet, 2013). The speeches are made to party members but also receive national media attention and so need to chime with both the audience in the room and the public at large. The two speeches are also important in terms of timing: they precede major election campaigns for both parties. The decision to focus on two speeches, whilst giving a good deal of granularity to this particular study, does mean that assessing change in the discourse over time, or in reaction to specific events, is not possible. However, we judge that these two important speeches are worthy of analysis in their own right.

Analysis of the speeches

The analysis of the two speeches uncovered three major shared representations: a focus on immigration, libertarian socioeconomic policies, and anti-establishment views. Each topic is addressed in turn.

Immigration – who is this country?

The right wing populist parties of Europe differ vastly in their focus on policy issues such as labour, healthcare, foreign affairs, agriculture, and trade. However, what unites this group of parties, and what has led scholars to identify a party family, is a common wish to restrict the flow of immigrants (Ennser, 2012). Immigration is a major part of Farage's speech, in which he claims that immigration "is the biggest single issue facing this country" and affects many other challenges facing Britain. These challenges, all connected to immigration, help Nigel Farage to construct notions of the self and other:

And while you can't blame them [immigrants arriving in Britain] – is it fair? Is it fair for the people who

are already here in this country? Who've paid in to the system? That migrants can come and immediately start drawing benefits? When we, the host country, is strapped for cash, when youth unemployment is at a million, when the NHS is groaning and the deficit is a burden on every family? (The Spectator, 2013).

Specifically, Farage ethically links the self with those who are born in Britain, pay taxes, and abide by the law. Farage uses ethical dimensions of identity to differentiate immigrants as the other who plan to exploit the British system. He asserts that immigrants cause strain on public services (e.g. school places, housing, and hospitals) and drive down wages through unskilled labour. Farage thus creates a rigid dichotomy that enables identity construction by painting immigrants as a burden on Britain and contrasting the established British citizen as a longsuffering victim. Furthermore, Farage effectively combines the spatial issue of people from Romania with the ethical issue of crime: "There have been an astounding 27,500 arrests in the Metropolitan Police area in the last five years. 92 percent of ATM crime is committed by Romanians" (The Spectator, 2013). This is clearly intended to stoke people's fears of the other and is reinforced by a statement that Britain will "unconditionally open our door to Bulgaria and Romania" (The Spectator). These countries are throughout Farage's speech implied to be too different from Britain.

Siv Jensen's rhetoric in the immigration debate is toned down compared with Nigel Farage. In contrast to Farage, Jensen does not mention any particular nationality as a source of crime. However, Jensen, like Farage, relies upon both ethical and spatial dimensions of identity in order to demarcate self from other. Similar to the UKIP party leader, Jensen claims that an open immigration policy places too heavy a burden upon Norwegian society as she predicts "the costs will be 4,000 billion kroner" over the next five years (Fremskrittspartiet, 2013). This enables Jensen to take the position as the responsible

² Nigel Farage's speech was held 20 September at the UKIP annual conference. The speech is transcribed by the Spectator and can be located here: http://blogs.spectator.co.uk/coffee-house/2013/09/nigel-farages-speech-full-text-and-audio/. The speech by Siv Jensen was held 26 May at the annual part conference and ahead of the parliament election. The speech is transcribed and translated into English by one of the authors, and the original version in Norwegian can be located here: http://www.youtube.com/watch?v=Lyy4PnNNs5c&index=1&list=PLlfC-FxTt58DvAc4nWP7-PSbBw9RBXYNK

treasurer as "it's not only the Norwegian model³ or the Norwegian system that stands in the way of reason. Here, it's the naivety that stands in the way of reason" (Fremskrittspartiet). Notice that Jensen uses immigration to criticize the established parties, who are held responsible for the alleged strain, and claims FrP to be the only party addressing immigration as a salient issue.

The spatial dimension of identity is not as strong as in Farage's speech, primarily because Jensen does not name any specific country of origin, but rather labels "asylum seekers" as those who threaten Norway. In the same manner that Farage identifies Romanians and Bulgarians as criminals, Jensen claims that "criminal asylum seekers without legal residence in Norway still hang around Akerselva and push drugs to young people in Oslo" (Fremskrittspartiet, 2013). The spatial dimension here comes into the ethical mix as one should understand asylum seekers as foreigners, and these asylum seekers are ethically different from Norwegians. The most remarkable example of identity construction in Jensen's speech links asylum seekers with terrorism. Jensen claims "there is only one usable instrument when waiting for eviction, and that is closed centres for asylum seekers [Pause] That is why we will give PST⁴ more resources in order to prevent terrorism in Norway" (Fremskrittspartiet). The party congress applauds the case for closed asylum centres, which marks a pause before Jensen moves on to talk about terrorism in Norway. Although these two quotes are not directly related, the sequencing is not a coincidence. Thus, Jensen is able to transition from a vivid picture of asylum seekers as drug pushers to abstract prevention of terrorism, which by implication is related to asylum seekers.

Both Farage and Jensen use immigration in their speeches, linking positive aspects of the Norwegian or British self and differentiating with the negative aspects of the other that originated abroad. A range of scholars has observed this delineation of "us" and "them", or self and other. Connolly (1989) notes that "[i]dentity and difference are bound together" (p. 329), whilst Neumann (1996) observes, with reference to Durkheim, that the delineation of "in groups" from "out groups" is an "active and ongoing part of identity formation" (p. 142).

Libertarianism – who funds this country?

Whilst populist parties are found on both sides of the political spectrum, both UKIP and FrP embrace a libertarian ideology: this is the second major representation found in the speeches. Libertarianism involves a shared belief that the state should shrink and that tax inhibits economic productivity. This libertarian socioeconomic ideology also includes an authoritarian element, whereby it is expected that the state should be tough on crime. For Nigel Farage, this libertarian-authoritarian ideology manifests itself in explicit rhetoric against the EU and immigration. As previously noted, Farage links Romanians and Bulgarians directly with crimes committed in Britain. Yet Farage also introduces a spatial dimension when identifying who is actually responsible for the mistake: "If they [Mr Cameron, Clegg and Milliband] are listening there's nothing they can do. They are tied up in the cat's cradle of EU laws, regulations, directives and treaties" (The Spectator, 2013). Since the leaders of the established parties are paralysed Farage suggests that the "only way this can be dealt with is by leaving the EU" (The Spectator).

Thus, the presence of these foreign criminal gangs is, according to Farage, the fault of the EU. Farage also asserts that the EU inhibits economic prosperity: "We know that only by leaving the union can we regain control of our borders, our parliament, democracy, and our ability to trade freely with the fastest-growing economies in the world" (The Spectator, 2013). Here, Farage invokes a temporal dimension of identity, claiming that before becoming a member of the union, "England was known as the land of liberty," Farage sees the EU as a backwards-economic union in which "[p]rocess and compliance and inspection and regulation are taking over from production and leadership and enterprise" (The

³ The Norwegian model refers to the economic and social political model that includes the combination of a free market economy with the welfare system.

⁴ PST is Norway's intelligence service.

Spectator). Only by leaving the EU, Farage claims, could "we get back the ability to strike free trade deals" (The Spectator). Thus, Farage sees the EU as an other that restricts Britain from moving forward.

For Siv Jensen, the libertarian-authoritarian ideology manifests itself in explicit rhetoric against what she sees as the obsolete Norwegian system and the retrograde policies of the Norwegian Labour party. Jensen devotes even more time to criminal justice issues than Farage. As with Farage's speech, Jensen uses an attack on the justice system to support her claim that the Norwegian model – about as far from libertarianism as you can get in Europe – works against the Norwegian people:

We are campaigning for security. Safe streets, safe communities, safe homes, and a safe everyday life [....] Here, it matters that the legislation reflects the crimes that are committed because it does something with our confidence in the justice system [...] It's important that we don't have atonement queues. But when educated police students don't get a permanent job, well, then the Norwegian model is standing in the way of reason. Or when the criminal law is not implemented because our computer equipment is too old, then the Norwegian model stands in the way of the Norwegian people. (Fremskrittspartiet, 2013).

Jensen here combines ethical and temporal dimensions of identity. She asserts that the government has not been able to create a criminal system that protects Norwegian society. Jensen also implies that the Norwegian system, closely connected with the Norwegian Labour Party, is obsolete in terms of equipment and policy and therefore cannot deal with the current challenges. Jensen's focus on criminal justice is, however, minimal compared to the time she spends explaining the potential benefits of liberal, freetrade economic policies without restrictions and regulations imposed by the Norwegian state. It is worth noting here that FrP can trace its roots back to an anti-tax campaign made famous by Anders Lange.⁵ Indeed, right from her opening statement, Jensen reaffirms FrP's libertarian ideals: "Dear friends. Congratulations with the forty-year anniversary. Forty years in the service for lower taxes and reduced government intervention, for the individuals, for freedom" (Fremskrittspartiet, 2013). Jensen does not refer to the EU, but rather maintains her critique of the Norwegian system - now constructed as an obstacle for economic prosperity. Despite this difference, the similarities in terms of libertarian ideology are clear. Jensen sides with the Norwegian companies, which she claims, "report that we need to remove all the competition twisting frameworks because it's more demanding in an expensive country to successfully run a business" (Fremskrittspartiet). These complaints from the private businesses align remarkably well with FrP's libertarian ideology as the companies "ask for reduced tax burdens, they ask for less bureaucracy and fewer forms to deal with" (Fremskrittspartiet). Jensen continues by reaffirming the us/them dichotomy by claiming that the establishment, here represented by the Norwegian model prevents economic efficiency and thus "stands in the way of the Norwegian people" (Fremskrittspartiet). Jensen constructs the model as an outdated idea. which cannot facilitate favourable conditions for Norwegian companies. In contrast, pursuing FrP's policy would "ensure that more people can live off their own income. It's because we want our companies not to just survive, but to reinvest and create more secure jobs in Norway" (Fremskrittspartiet).

Farage and Jensen both base their arguments on a libertarian socioeconomic outlook. In Farage's speech, the enemy of libertarianism is primarily the EU, which impedes Britain from pursuing policies that would enhance the individual freedom of people, reduce crime (that Farage would have us believe is committed largely by immigrants), and bring economic prosperity to Britain. In Jensen's speech, the EU is replaced by the Norwegian model, which fails to protect people through the criminal justice system, restricts companies from acting efficiently, and in general stands in the way of the Norwegian people.

⁵ FrP was originally founded as "Anders Lange parti til sterk nedsettelse av skatter, avgifter og offentlige inngrep" which translates to: "Anders Lange's party for strong reduction of taxes, charges and government intervention".

The establishment vs. the people - Who runs this country?

The third major pattern encompasses how the two party leaders seek to link their political parties with the people and differentiate themselves from the ruling establishment. This positioning by populist parties as radically different from the alternatives is well understood. Taggart (2012) notes that populism "builds on a fundamental ambivalence towards politics in general, eschewing established forms of political parties and opting instead for the new and spectacular and celebrating its difference from the established forms of politics." In this manner, both speeches cast "the establishment" (Farage) and "the Norwegian model" (Jensen) in a negative light.

Nigel Farage's speech demonstrates this opposition to the establishment. First, Farage employs spatial dimensions of identity to differentiate between "normal, decent people" in towns around the UK and "the London commentariat" (The Spectator, 2013). Farage claims that these decent people are disconnected from the other political parties. These processes of linking and differentiation continue when Farage asserts that UKIP members come from across the political spectrum and from all walks of life: they are in effect "the people". One thing that unites the people around Britain, according to Farage, is dissatisfaction with politicians based in Westminster. According to the UKIP leader, these people "aren't disconnected from politics. They're disconnected from politicians" (The Spectator). Farage then reinforces the us/ them dichotomy by linking the people together with reference to this dissatisfaction: "One thing many have in common: they are fed up to the back teeth with the cardboard cut-out careerists in Westminster" (The Spectator).

Turning to Siv Jensen, the key phrase in her speech, repeated seven times throughout the speech, is the claim that "The Norwegian model stands in the way of the Norwegian people" (Fremskrittspartiet, 2013). In addition, Jensen repeatedly asserts that model "stands in the way of reason" and "in the way of common sense" (Fremskrittspartiet). Jensen, like Farage, seeks to align herself and her party on the side of the

people. She claims that Jens Stoltenberg, the leader of the Norwegian Labour Party (and at the time of Jensen's speech, the Norwegian Prime Minister), is on the side of the system: "Jens Stoltenberg talks a lot about the Norwegian model. FrP would rather talk about the Norwegian people" (Fremskrittspartiet). Jensen claims that her party is not interested in the trappings of power but instead have the best interests of the people at heart: "We want red-green politics out of office and FrP's politics in. But we don't want to hold office to drive fancy cars. We want in because we have a political project, because we want make the everyday life easier for most people" (Fremskrittspartiet). Jensen reinforces this theme with the following: "We believe that people are better than politicians in deciding what's best for themselves and their families. That's why we want more individual freedom and more responsibility given to individuals" (Fremskrittspartiet).

The notion of that "the Norwegian model stands in the way" is employed by Jensen to criticize specific policy decisions of the Norwegian establishment, including the traditional populist touchstone of law and order issues. Jensen combines the phrase with ethical dimensions of identity when making allegations of criminality by asylum seekers: "When criminal asylum seekers without legal residence in Norway still hang around Akerselva and push drugs to young people in Oslo, well, then the Norwegian model stands in the way of the Norwegian people" (Fremskrittspartiet, 2013). It is repeated when Jensen complains that Norway funds better police equipment abroad than at home: "When the Polish police force has top equipment funded by Norwegian taxpayers. All the glory to them for that, but the Norwegian police force struggles with old equipment. Well, here the Norwegian model stands in the way for the Norwegian people. The system stands in the way of common sense" (Fremskrittspartiet). She also repeats this statement when she asserts, "when the criminal law is not implemented because our computer equipment is too old, then the Norwegian model stands in the way of the Norwegian people" (Fremskrittspartiet).

Jensen argues that taxation and regulation are not what industry wants: "They ask for reduced tax burdens, they ask for less bureaucracy and fewer forms to deal with, and they want to accelerate the road and railway building in Norway. Again however, we see that the Norwegian model stands in the way of the Norwegian people" (Fremskrittspartiet, 2013). This notion of model versus people is also used to complain about road tolls, about bureaucrats and random politicians deciding elderly people's needs, and when asserting that administrative workers outnumber doctors in the health system. Its final use is to complain about immigration policy. These quotations demonstrate how both Farage and Jensen seek to create an "us" of the people and UKIP/FrP set against a "them" of the political establishment.

Conclusion

Our analysis has set out three major patterns that appear in both speeches: immigration, libertarianism, and anti-establishment views. There are important differences in the two speeches: Farage focuses on immigration and anti-EU

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rhetoric; Jensen criticizes the Norwegian model. However, the similarities between the two speeches in themes, tone, and language are striking. Our research question asked how UKIP and FrP use identity and difference to further their political aims. It is clear that setting "us" against "them" (or "self" against "other") is a major element of using identity and difference. Both parties strongly criticise outsiders (asylum seekers, immigrants, and the EU) and the political establishment. All three of the dimensions of identity (spatial, temporal, and ethical) were employed to link positive aspects of FrP/UKIP and "the people;" moreover, to differentiate their parties from the allegedly negative aspects of "others."

Possible future work in this area should analyse how FrP's discourse changes, since the party is now in government. It will surely be more challenging for Siv Jensen to criticise the Norwegian model as an incumbent Finance Minister than as an opposition leader. It would also be useful to analyse how other political parties respond to the populist challenge: they might seek to isolate the populists, as posited by Taggart (2012), or adopt similar discursive practices.

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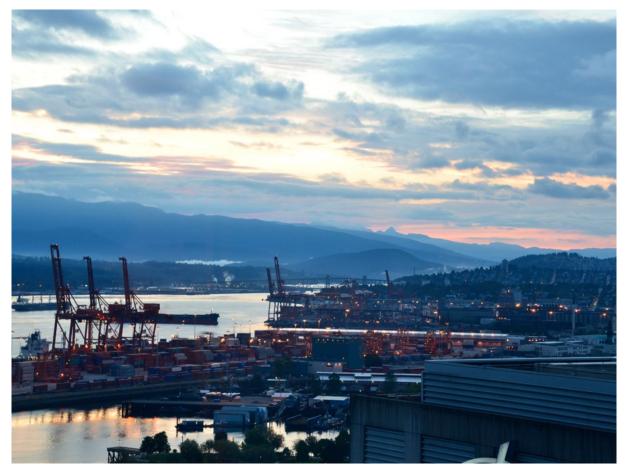


Photo: Akari O. Izumi Kvamme

Letter

Unregulated Hydraulic Fracturing Damages the Environment and Human Health

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High-volume hydraulic fracturing is a recent technology that extracts previously inaccessible natural shale gas from deep underground. The U.S. recoverable shale gas resources have doubled due to this technique, and it is widespread throughout the country (Rahm, 2011). In 2035, the U.S. gas industry will depend on shale gas for 45 percent of its supply (Hughes, 2011). Worldwide, countries such as Germany, Poland, and China are considering to use fracking to recover their shale gas reserves (Rahm, 2011). However, faced with controversial health and environmental issues, France decided to prohibit fracking. Although fracking is increasingly used in the U.S., studies about the potential hazards are scarce, and regulations to control it remain controversial. Despite its efficiency, unregulated hydraulic fracturing must be stopped, because it contaminates water and air and jeopardizes human health.

Shale gas production emits methane, a greenhouse gas more potent than carbon dioxide (CO2). Indeed, over the last 20 years, its presence has become 1.4 to three times greater than CO2 (Howarth, Santoro & Ingraffea, 2011a). Emissions occur during flaring or venting methods, when the fracking fluid is separated from hydrocarbons. Specifically, between 4 and 8 percent of shale gas vents or leaks to the

atmosphere (Howarth, Ingraffea & Engelder, 2011b). Enhancing fracking technologies could eliminate venting and flaring and thus reduce leaking emissions during the fluid flow-back (International Energy Agency, 2012). In 2011, the United State Environmental Protection Agency (EPA) drafted a regulation requiring industries to reduce their methane emissions during the post-fracking flow-back (Howarth, et al., 2011b). A similar regulation should be mandated to reduce water use during the fracking process.

Fracking uses excessive water, which is subsequently contaminated. Indeed, shale gas production uses up to 50 million liters of highpressure water per well to fracture the rock and liberate the gas (United States Environmental Protection Agency, 2012). The water use can be regulated by recycling it after the fluid flow-back (International Energy Agency, 2012). Moreover, the fracking fluid is contaminated by chemicals and elements from the rock. For example, Volz et al. (2011) found radioactive concentrations above the standard limits, because municipal sewage plants could not handle radioactive elements from fracking's waste-water (Howarth et al., 2011b). Therefore, since 2010, U.S. companies must disclose their fracking fluid composition of chemicals and the quantity of water use on the website FracFocus (www.fracfocus.org)

to establish more transparency for public knowledge (Howarth et al., 2011b). This disclosure helps scientists to enhance the fluid recycling, improve sewage facilities, and monitor chemicals that harm human health.

In addition to environmental impacts, extracted contaminants, such as radioactive elements, harm human health. Some fracking fluid additives are toxic, carcinogenic, or mutagenic. For example, in Pennsylvania, the carcinogen element benzene was found in an effluent of water from a brine treatment facility at six times above the standard limit (Volz et al., 2011). Benzene is also found in air emissions: in Texas, chronic exposure of benzene concentrations were high enough to cause cancer (Howarth et al., 2011b). McKenzie, Witter, Newman & Adgate (2012) show that people living near fracking wells in Colorado were more exposed to toxic air emissions and had higher health risks compared to those residents living far from wells. To enhance the quality of health near to fracking wells, regulations for air emissions and water use must be enforced. However, regulations can lead to economic losses for the countries using this technique.

Proponents of fracking claim that it is necessary to enhance the gas production, but restrictive regulations will be disastrous for the U.S. economy. In the U.S., the recoverable gas from

shale formations is estimated at 42 trillion cubic meters, equivalent to 65 times the current U.S. annual consumption. With shale gas, electricity production will double compared with current levels. The U.S. gas industry provides \$385 billion in direct economic activity and around three million jobs (Howarth et al., 2011b). If a moratorium on fracking is settled, U.S. domestic gas production will fall 20 percent by 2035 (Hughes, 2011). While fracking leads to short-term economic benefits, in the long-term, governments must remedy these health damages and environmental pollution by using these profits. Moreover, to offset coal efficiency, gas production has to increase by 64 percent, and coal plants have to be replaced by gas plants, which can cost more than \$700 billion (Hughes, 2011).

To conclude, the short-term impacts of fracking are known and dangerous. Although the long-term impacts on the environment and human health remain uncertain, the technique must be stopped until regulations are promulgated. Indeed, companies require strong, enforceable regulations to limit water use, control fracking effluent, and maintain best practices. To reduce gas emissions and water contamination, better technologies are expected, but they can lead to more expenditures. Studies must be launched for the future of fracking, because they will provide the rationale for regulation.

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Photo: Hanna Kavli Lodberg-Holm

Talking and No Talking: US and UK Negotiations with the Taliban

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Abstract: Contributing to the analysis of the international project in Afghanistan, this article discusses the role of the United States and the United Kingdom in talks with the Taliban. It asks why the US and the UK refused to negotiate with the Taliban during the months after the 9/11 attacks and why the two countries have decided to talk with the group beginning in 2010. It argues that the US and the UK authorities' decision to refuse was based on a strongly exaggerated idea of an al-Qaeda-Taliban merger. Defining the Taliban as "terrorists" on par with al-Qaeda had two major consequences. Firstly, it entailed the 'necessity' of invading Afghanistan as self-defence, as the merger implied a mistaken Taliban responsibility for the 9/11 attacks. Secondly, by invading Afghanistan and fighting the "terrorist" Taliban, it fixed the 'benevolent' identity of the US and the UK on the international stage. Finally, the article considers why high-level dialogues between the West and the Taliban have been made since 2010 and discusses the potential challenges of including the group in a settlement after most NATO forces have withdrawn from the country by 2014.²

Communications with the Taliban have become among the most controversial issues both for the West and the Afghans in post-Taliban Afghanistan. From both sides of this conflict, various, and at times opposing political objectives have constrained a consensus on whether or not to talk (Rashid, 2012). Western countries have been very sceptical about conversing with the Taliban until the end of the last decade. However, around 2010 most stakeholders, including the

UN, Afghan leadership, and governments that contributed troops to NATO's International Security Assistance Force (ISAF) mission, affirmed the need for dialogue (Eide, 2011).

Such open dialogue has been a heated, decade-long process. Following the 9/11 attacks, former US President George Bush gave the Taliban a number of demands, which were not open to negotiation (CNN, 2001c). Former British Prime Minister Tony Blair also stated that negotiations were out of the question and that there was "no compromise with these people possible" (CNN, 2001a; Jackson, 2007, p. 409). Yet more than a decade later, both the US and the UK have opened for negotiations with the Taliban. In November 2010, the first high-level contact between US and Taliban officials was

^{1.} The terms "terrorists" and "terrorism" are in inverted commas in order to help demonstrate the political nature of the concept of 'terrorism', which can be used and misused in order to gain legitimacy for political projects. See Jackson (2007).

When addressing the West, this article will primarily include the United States and the United Kingdom, with the United Nations (UN) also included to a minor extent, since the Taliban sees it as a Western organization. See Mardsen (2002)

established (Rashid, 2012). In February 2013, British Prime Minister David Cameron appealed directly to the Taliban to enter in peaceful talks about Afghanistan's future (Guardian, 2013).

The aforementioned examples indicate that both the US's and UK's approaches to negotiating with the Taliban have changed significantly since 2001. From their earlier refusal to even speak with the group, US and UK authorities have since explicitly stated their wish to talk and have made steps toward that end. This article analyses the causes for the West's earlier refusal to negotiate, the consequences of this refusal, and why Western and Taliban representatives have come to sit at the same table since 2010. These findings illustrate how the US and UK refusal to negotiate can be understood as "politics of identity": by depicting the Taliban as barbaric and brutal, the US and UK managed to present their respective countries as the opposite - liberal, democratic, and benevolent. This analysis does not in any way contest that the Taliban regime was brutal. However, the US and UK refusal to negotiate with the Taliban, thus excluding one of the major players in the country from political participation, was a crucial gesture for defining present-day Afghanistan. Moreover, the analysis demonstrates that the non-inclusive approach toward the Taliban was not solely based on Western decisions, but also the fragmented Afghan leadership (Eide, 2011; Giustozzi, Masadykov & Page, 2010).

Shedding light on negotiations with the Taliban is important for several reasons. Firstly, there has been surprisingly little debate about why there were no negotiations with the Taliban in 2001 and why the current talks progress so slowly. Successful negotiations could possibly have contributed to a peaceful settlement in Afghanistan at an earlier time, thereby sparing lives from the violence incurred in the War on Terror. Secondly, it demonstrates how a discourse of "terrorism", in this case on the Taliban, has functioned to maintain and construct the national identity of the US and the UK. As demonstrated by Jackson (2007), one of the main features of the "terrorism" discourse is to function as a Western "Other" and thus define the Western

"Self" through negation (Jackson, 2007). Thirdly, examining this subject raises questions about the premise for NATO's mission in Afghanistan, toward which numerous countries, including Norway, have contributed troops.

The Taliban and the West prior to the 9/11 attacks

Although limited international attention focused on Afghanistan in the 1990s, several Western countries and international organisations expressed their concern with the human rights situation following the establishment of the Taliban government in Kabul in 1996. The following years, the UN Human Rights Commissioner, the UN Secretary General, and the Director of UNICEF all announced their deep concern with the human rights situation in the country, especially the systematic discrimination of women (Mardsen, 2002). As the Taliban-Northern Alliance civil war (1996-2001) raged in the country, the UN and the UN Special Mission in Afghanistan sought to mediate toward a peace agreement. Uzbekistani President Islam Karimov initiated the "6+2 talks", which included different factions of the Afghan conflict, Afghanistan's six neighbouring countries, Russia, and the United States. These talks, however, did not lead to any significant results (Khan, 2011).

During the years leading up to 2001, the relationship between the West and the Taliban deteriorated. Yet the West did converse with the Taliban government during this period. In April 1998, for instance, former US representative to the UN, Bill Richardson, and former US ambassador to Pakistan, Thomas Simson, visited Kabul to hold talks with Deputy Taliban-leader Mullah Rabbani and other Taliban officials. These meetings yielded significant results, such as when the Kabul-based Taliban leadership agreed to open girls' schools and to relax the ban on non-governmental organization (NGO)

¹ The "Northern Alliance" or the "Northern United Front" is a contested definition. It is important to be aware of that other armed fractions may have participated in the fighting against the Taliban under a "Northern Alliance" umbrella during the 1990s. See Mardsen (2002) and Rashid (2010).

activities in the country (Khan, 2011). However, following the 1998 attacks on US embassies in Kenya and Tanzania, US officials gradually directed their policies toward the prosecution of Osama bin Laden. US intelligence sought Bin Laden in Sudan in 1996, after which he found refuge in Afghanistan. Consequently, US diplomacy worked on Pakistan and Saudi Arabia to convince the Taliban to surrender bin Laden for prosecution in the US. The Taliban refused, but they agreed to consider prosecuting him in a Sharia court (Khan, 2011). During the 1998 talks, Rabbani suggested:

"(...) the United States and Saudi Arabia could bring a case in an Afghan court against Osama on the basis of evidence, and that the Taliban government would respect the verdict if it were in favour of deportation." (Khan, 2011, p. 76).

As will be evident in the US and UK refusals to negotiate, academic analyses and policy statements often emphasize the orthodox conservatism of the Taliban. The Taliban movement that emerged in the beginning of the 1990s, however, was not particularly orthodox. For instance, they allowed the opening of girls' schools. Indeed, as all movements, members of the Taliban vary in attitudes and values, stretching from strict conservatism to relative moderateness (Mardsen, 2002).

Why refuse? The international context

Although George Bush and Tony Blair refused to negotiate the release of al-Qaeda members to the United States in 2001, undercover operations still occurred. The US and the UK refused to talk despite the Taliban's proposal to negotiate Bush and Blair's demands (Epstein, 2001). Furthermore, former Taliban ambassador to Pakistan, Mullah Abdul Salam Zaeef, condemned the 9/11 attacks the day after their occurrence (CNN, 2001b).

Pakistan had a crucial role in decisions about post-Taliban Afghanistan. The US had aligned itself with the Northern Alliance, a militia that opposed the Taliban, to take over Kabul. At the same time, US officials encouraged current Afghan President Hamid Karzai to lead the subsequent settlement. Former Pakistani President Pervez Musharraf suggested including elements of the

moderate Taliban in the new government. His proposal, however, was rejected by the Northern Alliance leader Abdullah Abdullah and thus by their new ally, the United States. In the end of October 2001, former Taliban Foreign Minister Wakil Ahmed Muttawakil went to Islamabad with the purpose of stopping US bombardment in order to enable Taliban leaders to release Osama bin Laden to the US. No agreement between the US and the Taliban was sealed, as the US was in a hurry to remove the Taliban and prompt regime change (Khan, 2011). The armed conflict between the West and the Taliban thus began.

During the period leading up to 2001, the discussions between the Taliban and the West indicate that the main constraints for fruitful dialogue were about social policies and the discrimination of women (Forsvarets Forskningsinstitutt, 2012). Clearly, elements of the Taliban had behaved extremely brutally against the civilian population (Human Rights Watch, 2000). This brutality was strongly emphasized in Bush and Blair's statements refusing any negotiation. Nonetheless, Taliban forces were not alone in these actions. The Northern Alliance also executed violations, factions of which became Western allies after the 2001 invasion (Khan, 2011). Why, then, was the Taliban defined as the main enemy of the West? To answer this question, a closer look at the context of the refusal is needed. George Bush and Tony Blair did not present the same arguments as the aforementioned researchers. In the statements of Bush and Blair, the Taliban and the West were presented as incompatible oppositions, which posed an existential threat to Western civilisation.

The refusal and the politics of identity

The US and the UK refusal to talk to the Taliban was based on a principle decision. As Bush stated in his State of the Union address in early 2002:

"Our enemies send other people's children on missions of suicide and murder. They embrace tyranny and death as a cause and a creed. We stand for a different choice (...). We choose freedom and the dignity of every life." (Peters & Woolley, 2002).

Such uncompromising condemnation of the

Taliban raises the obvious question of how and why the US and the UK chose to separate the Taliban from the armed factions with which they aligned themselves. Several reliable observers concluded that both the Taliban and the Northern militias were complicit in executing the same brutal violations of human rights. The importance of politics of identity, which are somewhat underrepresented in analyses of the Afghan conflict, thus requires further explanation.

Bush's and Blair's refusal implies a delineation of identity between their national affiliations and the opposing "Other." As political scientist Lene Hansen (2006) demonstrates, the construction of national identity comes into being through the discourse of foreign policy. Moreover, Hansen argues that all identities are constructed through a process of differentiation. Democracy, for instance, is constructed as an identity for some states that other states could and should embrace. In this sense, democracy could not be a part of a state's self-understanding and discourse if it was not for the possibility of saying that another country is not democratic (Hansen, 2006). This is evident when Bush defines both the US and the "enemy" identities, where the latter identity is presented as a threat to liberal US values such as democracy, freedom, and life.

By refusing to negotiate, the US and the UK presented themselves as the manifestations of Western liberal democracy, articulating a clear opposition between their own freedom-fighting democracies and the tyrannical enemies in Afghanistan. The US and the UK thus ensured their *ontological security* by reaffirming the respective states' self-identity, and secondly, their image to other states (Steele, 2008).

The refusal and the myth of the al-Qaeda-Taliban merger in Afghanistan

Bush and Blair presented the idea of an al-Qaeda-Taliban merger as a fundamental part of their refusal to negotiate, since an al-Qaeda-Taliban merger would imply a direct Taliban responsibility for the execution of the 9/11 attacks. As both US and UK policies at this time were characterised by the "we do not talk with terrorists" doctrine, they

appeared not willing to negotiate with the Taliban (Ruttig, 2011). Yet according to Tony Blair, this assumption was a myth:

(...) our information is (...) that effectively the Taliban regime and the al-Qaeda network have virtually merged now. I mean, their forces are the same; probably their military structures are virtually the same. So, you know, there's no negotiating with them. They yield up the al-Qaeda terrorists, the network, bin Laden. (CNN, 2001a).

Tony Blair's statement is, however, quite imprecise. First, the Afghan Taliban is focused only on Afghanistan and has not had any aspirations for global jihad or an oath to al-Qaeda's agenda (Rashid, 2012). Second, the arrival of bin Laden amidst the rise of the Taliban in Afghanistan created tensions between these two groups, tensions that created a rift in the Taliban leadership. Taliban leader Mullah Omar and bin Laden did have a close relationship, but it is uncertain how this developed and ended after 9/11. The Taliban also saw bin Laden as a constraint to achieving international recognition, and several members of the group sought to cut the link to al-Qaeda in order to maximise international Taliban legitimacy (Kuehn & Strick van Linchoten, 2012). As Kuehn and Strick van Linchoten (2012) argues: "al-Qaeda and the Taliban remain two distinct entities, with different memberships, ideologies and objectives" (p. 327). A CNN interview from 2009 with Zabiullah Mujahid, one of Mullah Omar's spokesmen, also supports this view. In the interview, Mujahid stated that the "Taliban is one thing and al-Qaeda is another. They are global; we are just in the region" (CNN, 2009).

It is, unfortunately, not possible to answer if Bush and Blair were aware of the myth's fallacy or if they simply did not know of it. In the former case, the politics of identity discussed in the previous section remains relevant. Merging the Taliban and al-Qaeda made it simpler to articulate a clear policy and identity based on a threatening "Other," although this "Other" was actually two separate groups. Indeed, the al-Qaeda-Taliban merger helped to strengthen the 'benevolent' identity of the US and the UK as actors who were standing up against the 'ter-

rorists'.

Talking and no talking: The rise of an inclusive approach?

At first glance, the refusal to talk with the Taliban appears to originate solely from Western decisionmakers, yet this is a simplistic understanding. When the 2001 Bonn conference drew the lines for the future of Afghanistan, reconciliation and dialogue received little attention. Refusing to talk was not only a Western approach, but was also rooted in wide scepticism within the Afghan leadership (Giustozzi et al., 2010). During recent years, contact has also been made between the Afghan government and the Taliban. In 2010, Afghan President Karzai confirmed that he had been in contact with significant members of the Taliban. He played down the meetings' importance, however, by stating that it was still in a "nascent stage" (Ruttig, 2011). Even NATO, which engages in combat action against Taliban forces on a weekly basis, has confirmed that it has facilitated the dialogue by providing transport and security for Taliban interlocutors entering Kabul and other NATO-controlled areas (Ruttig, 2011).

Although there is now a consensus on the *need* to talk, this consensus is fragile. The US experienced and still experiences a congressional and judicial constraint regarding which parts of the Taliban they seek to include in a possible reconciliation (Giustozzi et al., 2010). Some observers view Washington's strategy, aimed at both talking and decimating, as an attempt to militarily destabilise the Taliban to a point that would force them to the negotiation table. According to analyst Thomas Ruttig, this tactic has made the chances for successful negotiations even more unlikely (Ruttig, 2011).

During 2013, the UK supported a possible reconciliation process from the top level of the Foreign Office. British Foreign Secretary William Hague spoke about possible negotiations after Hamid Karzai and Asif Ali Zardari visited the UK in February of that year. In a statement to the Parliament following the visit, Hague confirmed that the UK will support the opening of a Taliban office in Qatar, and encourages the Taliban to

take part in a peaceful political dialogue (GOV. UK, 2013).

Recent developments among Western actors affirm the consensus around the wish to talk with the Taliban. Several causes may explain this situation. By 2009-2010, several Western diplomats as well as Afghan politicians noted that the US military surge did not achieve the proposed results. The Taliban was growing stronger, more violent, and more widespread throughout the country (Suhrke, 2011). In Europe, the 2008 financial recession made European countries more reluctant to maintain their troops in the Afghanistan. Furthermore, the US continues to spend borrowed money to fund the military surge amidst growing domestic resistance to the war (Rashid, 2012). Considering that NATOforces will be leaving Afghanistan in 2014, the inclusive approach indicates the transferring of responsibility away from the West. As in the case of the 2001 settlement negotiations, recent developments reveal that the current talks are an intricate patchwork of divergent interests both between and within the Western and Afghan leadership.

Yet certain mechanisms hinder current communication. Considering that the present talks are mostly covert, little official discourse addresses the problem or its potential solutions. The "terrorist" label on the Taliban, which remained dominant until 2010, still needs to be taken into account when asking why the current talks move so slowly. Until now, the Taliban has also been reluctant to talk to Karzai, as he is perceived as a "puppet" of the US. In February 2014, however, some reports claim a change of opinion and that the Afghan Taliban are again in contact with Karzai (Khan, 2014). What role the US and the UK will play in this puzzle remains to be seen.

Conclusion: Will they talk?

This article highlights the context that underpinned the 2001 refusal to negotiate and the subsequent processes that led up to talks. It is tempting to imagine how Afghanistan might appear today if Blair and Bush had accepted the earlier Taliban proposal to negotiate or Pakistan's

suggestion to include moderate elements of the Taliban in the 2001 settlement. The observed outcome is, however, not merely a result of the decisions made by Bush and Blair in 2001. The non-inclusive approach is not only the responsibility of the West, but also implicates the Afghan leadership.

As there is an emerging consensus among Afghans and the international community for dialogue and reconciliation, several unanswered questions remain. Although Western countries like the US and the UK will have substantial influence on these questions, the final outcome will depend on the decisions made in the Afghan and Taliban leaderships. Hereunder, the Taliban's possible role in a post-2014 settlement is most significant. There is no guarantee that a prospective position for the Taliban in the Afghan government will not be abused. It remains unknown what a settlement between the West, the current Afghan establishment, and the Taliban might look like and consist of. It is also

uncertain whether the Taliban will have a defined civilian role in 2014. These issues are up to the people of Afghanistan to debate and act upon.

Finally, this article demonstrates the political consequences of adopting one representation over another. Fighting the Taliban has, from a Western point of view, always been presented as a part of the broader counter-terrorism campaign in Afghanistan. As this article argues, defining the Taliban as "terrorists" is not something given by nature, but can be comprehended as something that served to affirm the identity of the US and the UK in international relations. Talking to the Taliban was out of the question a priori, because their identity as "terrorists" and "enemy" was fixed. Adopting a language and consequent practice that does not uncompromisingly define groups as "enemy" or "terrorist" is a basis for any dialogue. More significantly, such an approach is also a basis for making the world a more peaceful place.

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Photo: Vera Thaler

India's "Missing Women": A Case of Gender Inequality?

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Abstract: Sex ratios in India are skewed when compared to Western countries, indicating lower rates of women. Amartya Sen (1990) refers to this phenomenon as "missing women", women that potentially would be present had ratios in India been equal to those of developed countries. He argues that gender inequality is the cause of these missing women, and more specifically that high mortality rates of females at birth and early childhood as well as sex selective abortion are contributing factors that represent gender preference to boys than girls. More recently, Anderson and Ray (2012) investigate further to determine the specific causes of the high mortality rates among corresponding age groups. Only 37 percent of missing women were found to be dying at birth or during childhood, while the majority were dying during adulthood from a range of causes including cardiovascular disease, maternal mortality, and injuries. Their analysis demonstrates that the causes are more complex than Sen's original argument; while gender inequality is one factor, it crosscuts religion, caste, kinship, race, biology, and other social factors.

Missing women and gender equality

In 1990, Nobel Prize-winning economist Amartya Sen published a shocking article about missing women. The article "More Than 100 Million Women Are Missing" has since been the subject of major debate. According to Sen, "missing women" refers to the number of women in Asia that would potentially be present if human sex ratios were equal with those of developed countries. Sen (1990) argues that the missing women represent "a terrible story of inequality and neglect leading to the excess mortality of women," while focusing his research on high female mortality at birth and in early childhood (p. 1). A recent and more extensive study shows that the cause of the majority of missing women in India is high mortality rates in adulthood (Anderson & Ray, 2010). By comparing research on missing women in India, this paper

will attempt to challenge Sen's interpretation by arguing that high mortality rates of adult women is a main contributor. Furthermore, by exploring three direct causes of high mortality rates in adults in India, it will be argued that the reasons for missing women are varied and complex. Finally, this paper will explain why missing women are not a direct result of gender inequality and how categorizing them in this way assumes that gender inequalities and discrimination are the only reasons, which overlooks the complexities behind the issue.

It is critical to understand the reasons for the missing women in order to encourage equality and development. Gender equality is an important part of development and is included as part of the third Millennium Development Goal (United Nations, 2013). According to the United Nations (UN) (2001), "equality between

women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centered development." The UN defines gender as the behavioral, cultural, and psychological traits associated with one's biological sex, as well as the relationship between the sexes. Gender is socially constructed, within a context and time period and is subject to change (United Nations, 2001). Therefore, aspects of gender vary between human societies, and within these societies there are inequalities among responsibilities, activities, and access to/control over resources and decision-making opportunities between sexes (United Nations, 2001). Gender equality, as described by the UN, means that rights, responsibilities, and opportunities should not depend on sex, while taking into consideration the different needs and priorities of men and women. In the 2013 UN Development Report, India was ranked poorly at 132 out of 187 countries on the gender equality index (Shah, 2013). Gender equality is both the means to an end and an end in itself regarding the missing women problem. Gender equality leads to fewer missing women, and fewer missing women leads to gender equality (Rogers, Everett, Saint Onge & Krueger, 2010). Gender inequalities are closely linked to several causes of India's missing women, such as sex selective abortion and violence towards women. The number of missing women represents the gender inequalities in India (Sen, 1990).

Mortality rates at birth and in early childhood

Sen (1990) brought attention to the low ratio of women to men in South Asia, West Asia, and China in his paper "More than 100 Million Women are Missing." The human sex ratio is the number of males for each female in a population. North American and European countries generally have more women than men, with a human sex ratio of around 0.98. China and India have less women, with ratios of around 1.06 and 1.08 respectively (Central Intelligence Agency, 2013). Sen based his arguments on evidence that if women and men receive equal health care; women tend to live longer (Rogers et al., 2010). Therefore populations should have more women

than men, assuming equal access to basic nutrition and health care.

By comparing sex ratios of India and the West or "developed" countries (Europe and North America), Sen (1990) claims that 47 million women are missing in India. According to Coale (1991), the main cause of missing women is high female mortality rates compared to those in the West. Sen focuses on the high excess mortality rates of females at birth and during childhood. His research concentrates on rates of sex selective abortion, infanticide, and unequal treatment related to health care resulting in vulnerability to disease and illness. Much of the research thereafter also emphasizes excess mortality during early female childhood (Anderson & Ray, 2012). The "missing women" phenomenon was originally used by Sen and other researchers as a measure of gender discrimination and inequality, with the main contributor being the parental preference of boys (Anderson & Ray, 2012).

Sen (1990) uses the sex ratio in developed countries as the reference point. This assumes that the only difference between the reference point and India is the treatment of women. In reality, as pointed out by Anderson and Ray (2012), there are many differences between India and other countries and within India itself. It is difficult to separate gender discrimination from social, biological, economic, environmental, and behavioral factors. Gender-based death rates may naturally vary with development and are crosscut with race, religion, class, and context. Some of the causes may be biological and/or preventable.

Anderson and Ray (2010) approach the same question with several differences in their methodology. They performed a more in-depth study to find the distribution of missing women across age groups and the age-disease groups for the year 2000. This study proves Sen's findings to be inadequate – high mortality rates at birth and during childhood only accounted for 37 percent of all the missing women. The other 63 percent were found to be dying later, during adulthood, from a variety of factors, some not necessarily a result of gender inequality.

Anderson and Ray (2010) found that 12

percent of excess female mortality in India is at birth, with 184,000 females missing at birth in the year 2000. These deaths are caused by sex selective abortion or infanticide (the intentional killing of infants) and are driven mainly by gender inequalities and discrimination in India. Sen (2001) defines several reasons boys may be preferred in an Indian family. Ownership inequalities in India persist despite legal reforms after independence. Traditional inheritance remains in favor of male children. Division of labor and gender roles are often unequal within Indian households. Gender roles here refers to the roles that men and women are socially expected to play in a household. In some parts of India, it is possible that gender roles encourage men to work outside of the home while women work at home (Sen, 2001). In poorer families, though, boys may be preferred because they are encouraged to go work outside the home and make money. A girl's dowry may be one reason that poorer families prefer boys. A dowry is the value of goods, estate, or money that a woman brings to a marriage and is common in parts of India, especially in north-eastern states (Anderson & Ray, 2012). Having a baby girl requires that families save up a dowry for the girl's future husband. Boys, on the other hand, will receive a dowry from their future wives. Indeed, as Sen (2001) argues, economic empowerment is key to reducing sex selective abortion and infanticide, as it provides equal access to gainful employment, education, and higher economic returns.

High rates of childhood mortality (ages 0 to 14) account for 25 percent of total excess deaths in India and are not guaranteed to be caused only by gender inequality. Anderson and Ray (2010) argue that infectious and parasitic diseases, linked to poor sanitation conditions, cause half of the excess deaths of young girls under 5. Among the possible reasons for these deaths are that the parents are allocating the clean water for boys, girls are more susceptible to certain diseases, or a combination of the two, as well as the lack of clean water for all.

In conclusion, excess female mortality at birth is undeniably caused by gender inequality.

After birth, however, the reasons become more complex. Anderson and Ray (2012) argue that "missing women" cannot be proven as a direct link to gender inequality and that while high mortality rates at birth and childhood are important, they only account for 37 percent of the total missing women. The majority of the women missing in India are adults (15 years or older), who must be considered in this study.

Mortality rates in adulthood

Anderson and Ray (2012) do not argue against the severe gender bias at young ages, but they do shift the focus toward adults and more specific causes. With a total estimated number of missing women in India in a given year at two million, they state that 18 percent are missing at reproductive ages and 45 percent are missing at older ages. The causes of the excess mortality at older ages are varied. Maternal mortality is a main cause of excess death at reproductive ages 15 to 44 at 130,000 deaths per year (Anderson & Ray, 2012). Injury is another contributor to excess female mortality, primarily between ages 15 and 29 exceeding 225,000 deaths per year. Cardiovascular disease is the largest contributor and kills more than 450,000 yearly, affecting primarily adults between the ages of 45 and 79 (Anderson & Ray, 2010).

Maternal mortality rates are higher in India than in developed countries and therefore contribute to the missing women estimation. The maternal death ratio per 100,000 births in India is 300, compared to 18 in developed countries (Sample Registration System, 2006). Because men do not give birth, it is difficult to determine whether or not maternal mortality is due to gender inequality (Anderson & Ray, 2010). Factors relating to different levels of development such as poverty, distance, lack of information, inadequate services, and cultural practices may prevent women from seeking care during pregnancy and childbirth (World Health Organization, 2012). Indeed, poorly trained staff and fees for poorer pregnant mothers are common in India. Furthermore, caste discrimination plays a role in maternal mortality. One study from 2007 shows that 61 percent of maternal deaths are among Dalits and tribal communities, which are considered to be at the bottom of the social ladder (Khan, 2009). Therefore, gender equality may account for a portion of maternal mortality, but poverty and caste discrimination are contributing factors as well.

Injuries account for a range of excess deaths in India, killing around 225,000 women each year. "Injury"-related deaths are due to unintentional (accidents) or intentional (violence) incidents. Fire-related deaths alone account for 100,000 women at reproductive ages each year (Anderson & Ray, 2010). This might be related to bride-burning and dowry death. The National Crime Bureau of the Government of India reports around 6,000 dowry deaths per year, in addition to many that go unreported (Menski, 1998). Dowry deaths occur when family members of the husband, or the husband himself, kill or use excessive violence towards the bride because they are dissatisfied with the dowry her family offers, resulting in murder or suicide (Menski, 1998). In north-eastern states of India, the excess mortality of women during reproductive ages is highest; these are the same states where the dowry phenomenon is more common (Anderson & Ray, 2012). Dowry deaths stem from unequal inheritance and property laws. Until these laws become gender neutral, laws against dowry payments will not be effective in reducing dowry deaths (Willigen & Channad, 1991). Injury-related deaths among women in India appear to be better indicators of gender inequality or discrimination; however, further research should be done to ascertain exactly from where the majority of injury-based death originates and how it may be prevented.

Cardiovascular disease is the largest contributor to excess female mortality in India, killing as many as 450,000 women per year (Anderson & Ray, 2010). In the US, men are more likely to die from cardiovascular disease than women (Fang, Shaw & Keenan, 2011). In India, women die at a rate close to men relative to developed countries, causing excess mortality. There could be several reasons to explain this pattern; however it is not a straightforward case of gender inequality. Biological, behavioral, and psycho-

social aspects contribute to the gender gap in the incidence of cardiovascular disease (Weidner, 2000). Genetic reasons, such as the heart disease gene, could be responsible for this difference. It may be equally present in males and females, killing more females in India relative to Western countries. Lifestyle or cultural differences may also play a role. Men in India might eat healthier, exercise more, or drink less alcohol (Anderson & Ray, 2012). It could also be that women do not receive as much medical care or that they have more stress (Anderson & Ray, 2010), which could be directly linked to gender roles and gender inequalities (Weidner, 2000). According to a survey done by Nielsen (2011), women in India are the most stressed in the world. In India, 87 percent of women claimed to be feeling stressed most of the time. More research should be done to find exact reasons for high mortality due to cardiovascular disease and in order to account for a large majority of missing women in India. Sen (1990) only briefly discusses high mortality due to cardiovascular disease when he argues that nutritional neglect of girls leads to undernourished mothers and low birth weights. Low birth weight causes higher incidence of cardiovascular complication in adults. However, Sen's argument does not address missing women because these higher risks affect both women and men equally.

Conclusion

Sen's perspective that gender equality and discrimination is the only underlying cause of missing women may be misleading and create the belief that gender equality will fix the problem of missing women in India. However, it is not the only cause, and this assumption disregards other underlying mechanisms. Gender relations are crosscut with religion, caste, kinship, and race as well as biological and social factors. Maternal mortality is impossible to compare to gender inequality. Death due to violence against women is a clear indicator of discrimination, while cardiovascular disease could be due to genetics, lifestyle, or lack of "similar care". There is not enough research to conclude that all the missing women are proof of gender discrimination.

The reasons for missing women are complicated and varied. Separating the missing women by age and disease has been proven to be helpful to specify where the majority lies, yet further research must focus on high female mortality rates in adults, as well as the unborn or the young. Lastly, additional research must consider gender inequalities alongside other factors with the hope of finding ways to help the most number of women as possible avoid early mortality.

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Photo: Hanna Kavli Lodberg-Holm

Perspectives on the Political Ecology of Reindeer Pastoralism in Finnmark, Norway

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Abstract: The management of reindeer herding in Finnmark, northern Norway, has been a long and troublesome field for the Norwegian authorities. Hegemonic narratives assert that reindeer herding causes land degradation on the Finnmark mountain plateau and managerial policies have therefore focused on determining maximum stocking rates and optimizing meat production. Using a political ecology framework this paper outlines a selection of contemporary issues in reindeer pastoralism such as land use conflicts, disputed effects of pasture interferences, consequences of government regulations, and pasture degradation discourses. This paper shows that under current policies, herders face marginalization, particularly when confronted with authoritarian state regulations as well as national and local economic interests.

Reindeer herding is a traditional industry and way of life for the Sami people, the indigenous population of the North Cape. Contemporary reindeer husbandry is a pastoral system based on seasonal migration from inland lichen pastures in the winter to coastal green pastures in the summer. The system is well-adapted to large climatic variations and a scarce biological productivity. In particular, it is practiced on 45 percent of Norway's territory, from Hedmark in the south to Finnmark in the north.

This paper focuses on reindeer pastoralism in Finnmark, Norway's geographically largest and demographically smallest county. Approximately 75,000 people (SSB, 2013a) inhabit small towns and cities in a county that covers 15 percent of Norway's mainland. At first glance, this county appears to have enough room for reindeer pastoralism, but this region experiences increasing conflicts over available space. In

national and local media, for instance, headings like "Reindeer husbandry in opposition to gold-hunt" (Utsi, 2010), "Farmers and Sami people quarrel over the reindeer" (Randsborg & Rapp, 2009), and "Nature encroachments threatens the reindeer husbandry" (Haarstad, 2013) are common. Reindeer herding interests frequently conflict with land developments such as cabin expansions, mining operations, and power supply and wind power expansions. Herders and farmers also disagree when reindeer should graze on fields.

This paper argues that under current policies, traditional Sami reindeer pastoralism in Finnmark, Norway face marginalization. Using a political ecology framework, this paper outlines a selection of contemporary issues in reindeer pastoralism such as land use conflicts, disputed effects of pasture interferences, consequences of government regulations, and pasture degradation

discourses. The political ecology framework provides a critical perspective for analysis, since reindeer herders often are in opposition to actors that yield considerable discursive and political power. Because of such asynchronous power relations, herders may end up as the losers in political processes.

Why is it a problem for political ecology?

"Large tracts of the Finnmark mountain plateau are overgrazed, because the total reindeernumbers are not adapted to the fodder resource" (Riksrevisjonen, 2012). Such a statement from the Office of the Auditor General of Norway is powerful and establishes a direct relationship between mismanagement by reindeer herders and Sami institutions and the degradation of the fodder resource. Studies in political ecology often criticize such direct cause and effect explanations (Benjaminsen & Svarstad, 2010). One of its main assumptions is that ecology is not necessarily apolitical, as commonly assumed (Robbins, 2012). A frequent assumption in political ecology is that in practice, researchers are political actors (intentionally or unintentionally) and that influential knowledge systems and environmental characteristics are constructed and analyzed by actors who behave in accordance with their values (Benjaminsen & Svarstad, 2010). Rather than looking at causal relationships between actions and outcomes, political ecology attempts to identify broader systems and explain the emergence of local environmental problems or conflicts in the light of national or international realities (Robbins, 2012). Such studies may generate insights that challenge mainstream discourses and show how vulnerable groups often get marginalized.

In this paper, political ecology uses a broadly defined political economy to show how international demand for minerals and energy creates challenges for reindeer pastoralism. Discourse and power theory are used to show how important actors have accepted a specific understanding of the reindeer husbandry system as true. Three scale dimensions are involved in the paper: political, spatial, and temporal. Political

scales are local municipal councils who define and protect the interests of their inhabitants; the regional and national political entities that define and negotiate national interests; and international trade demands that influence national interests. Spatial scales are the biological conditions of single pastures and their relation to management on a landscape and regional level. The time scale is likewise important for this discussion, as reindeer herding must be understood in its historical context.

Environmental resources at stake

The environmental resource at stake is the grazing land, the key for a well-functioning pastoral system, and for the survival and production of the herd. The primary production in Finnmark is small and short and initiates at different times at different locations. Herders must secure access to pastures that are balanced between winter and summer areas. When winter arrives and the availability of green plants diminishes, the herds migrate to the inlands where lichen is abundant and the snow cover is shallow. These migration patterns make reindeer husbandry an extensive production system. The winter pastures only provide resources for maintenance, while the summer areas provide resources for growth and reproduction. Winter pastures are claimed to be the minimum factor for herd size (Ims & Kosmo, 2001). Fear for the continued functionality of this crucial resource is one reason why the industry has a stake in many of proposed and current development projects in the area.

A sedentary view of the industry

Reindeer pastoralism is not a conventional farming system. In conventional farming systems like sheep husbandry, meat production is easy to plan and optimize, because of relatively predictable and stable forage supply. Indeed, a negative relationship exists between high animal densities and low slaughter weights. A too high density of sheep will lead to grazing competition and eventually overgrazing and declining carcass masses. The same assumptions underpin the state regulation of the reindeer industry.

Ims and Kosmo (2001) tested this theory in a regression analysis and found a strong and significant relationship between reindeer densities and slaughter weights. With an R2 of 0.7, they could explain 70 percent of the variation in slaughter weights as a function of animal density. They further calculated a maximum reindeer population of 66,200 in western Finnmark. The notion of reindeer pastoralism as an equilibrium system is to a large degree taken for granted by the reindeer administration (Marin, 2003). In the newest resource accounts publication, the reindeer population of western Finnmark was reported at 96,265 animals, 24 percent larger than the determined level (Reindriftsforvaltningen, 2012). Getting the reindeer population down to the officially defined sustainable levels have been a constant struggle for the reindeer administration and have spurred many conflicts and disagreements with herders.

Herders and researchers contest the perception of reindeer pastoralism as an equilibrium system with a static economic and ecological carrying capacity. According to Joks et al. (2007), the main critique against the equilibrium model is that it does not consider the "spatial heterogeneity, climate variability, herd mobility, variable herd sizes, and herd structure with regards to gender, age, and function". Reindeer herders raise these concerns in consultation statements (Joks et al., 2007). Ultimately, many herders and some researchers claim that the reindeer husbandry in Finnmark is a non-equilibrium system. Such a system is characterized by variable climatic conditions resulting in unpredictable forage supplies where the ability to rapidly adjust animal numbers to environmental stochastisities is important (Behnke, 2000). This implies that determining sustainable reindeer populations could be less important as a management strategy, since a complex interplay of human and natural perturbations could determine production opportunities.

Despite disputes over the equilibrium model, a cross-political consensus in the Norwegian parliament believes that the reindeer population is too high and leads to overgrazing and land degradation. Benjaminsen and Svarstad (2010)

claim that this consensus is a result of hegemonic degradation discourses produced by the mass media, environmental NGOs, natural scientists, and politicians. They further assert that the resulting policies have not sufficiently considered the herders' own understanding of the industry. Marin (2003) compares the hegemonic discourse of the state based on carrying capacities with the counter-narratives of the herders who argue for flexibility and more consideration in practical policy.

Cultural and economic marginalization of slaughter practices

The equilibrium grazing discourse consequently helped developed the herd- and slaughter-optimization models. Scientists from the Agricultural University of Norway (now the Norwegian University of Life Sciences) stood at the forefront of this research. The meat production strategies were based on intensive calf slaughter and herds with a majority of female reindeer (Lenvik, 1990). While controversial in the reindeer herding communities, the theories became popular in the Norwegian Ministry of Agriculture and Food. The Ministry soon introduced economic incentives to change the herders' slaughter practices.

Reinert (2006) criticizes the model and claim the theories reflect a flawed understanding of the reindeer husbandry system when the ultimate goal of herd optimization is to mimic a sedentary sheep production system based on ewes. This system is more predicable than reindeer herding because the fodder resource is more stable, moreover, reindeer herding is based on year-round rough grazing, while sheep mostly graze outside during the summer. Reinert also criticizes this model regarding the relationship between the live weights of female reindeer and their fertility and its implications for culling. He claims that herders contest this notion. Fundamentally, though, these instances exemplify the "knowledge wars between the Agricultural University at As and Saami knowledge" and indicate that "over the course of more than a decade the Saami understanding of their own meat production was completely

trampled" (Reinert, 2006, p. 533). By treating reindeer husbandry as a conventional meat production system, the industry has become economically and culturally marginalized and has been forced into "the mass production philosophy of "modern" agriculture."

Toward the end of the 1970s, strong governmental regulations on pricing, slaughtering practices, and stocking rates made this possible. The herders were forced to sell their produce to a monopsony, Norges Kjøtt og Fleskesentral (the Central Meat and Lard Office of Norway), the cooperative owned by Norwegian meat farmers (now Gilde). Since the herders were forced to sell their produce to their competitors, Reinert argues that reindeer herders become victims of vested interest in the meat industry, meaning that fewer resources are put into the marketing of the reindeer meat. This causes a vicious circle of declining profitability and puts more money into social welfare programs for the herders instead of trying to reform the system. "The planned centralization removed the cultural core of their economic activity, slaughtering, and reduced herders to suppliers of raw material on hoof" (Reinert, 2006, pp. 537-538).

Land use conflicts and interferences

The industry spans a large area, and has thus caused conflicts with actors who want to use the land for other purposes. For example, large protests have occurred against mining operations encroaching on reindeer herding areas. Herders fear that their pastures will be irreversibly damaged, which will force them to change their land use customs. Alternative options are also becoming increasingly limited as more projects are initiated (Rørholt, 2009). Before continuing with discussions of mining development, the term pasture interference must be defined.

Both domestic and wild reindeer are shy animals requiring large areas of undisturbed territory to utilize pastures optimally. Herders perceive mining operations, wind power, housing developments, and infrastructure like roads and power lines as threats because such encroachments may "displace reindeer or prevent them from using wide areas around these sources of disturbance" (Linnell & Strand, 2009). Such displacement may therefore decrease the effective size of pastures and lead to overgrazing. Two schools of biological research disagree on the extent of such pasture interference. The first school measures response directly through physiological indicators or flight and fright distances. The second school measures the reindeers' accumulated spatial and temporal distribution in the wake of interferences. They often reach contradictory conclusions. As representatives of the first school, Reimers and Colman (2006) concludes that reindeer seem to habituate to constructions that do not physically obstruct access to pastures. The second school, on the other hand, is critical to measuring the impact of single development projects, because impacts on reindeer are cumulative and multidimensional. "Piecemeal development has resulted in an estimated 70 percent loss of undisturbed reindeer habitat across the last century in Norway" (Nellemann, Vistnes, Jordhøy, Strand & Newton, 2003). They point out that cumulative effects of single projects can be very large. Scholars have criticized this approach for not being measurable, due to possible bias caused by unknown environmental variables (Reimers & Colman, 2006).

The conflicting insights of these two schools can be selectively employed to promote one's own interest. For instance, results from the first school are commonly cited in environmental impact assessments. The impact assessment of the Fálesrášša wind power station in the Kvalsund municipality states that "recent research shows that reindeer are quickly adapted to wind turbines and it is expected that the reindeer over time to a large degree will resume its use of the areas" (Finnmark Fornybare Energiutvikling, 2011, p. 74). By only referencing the first school of research, the risk of pasture damage could be intentionally downplayed. This shows that the objectivity of research-based decision-making may suffer under vested interest since the land developer pays for the environmental impact assessments.

The proposed reopening of the Bidjovagge mine in Kautokeino (Guovdageaidnu in Sami) municipality has attracted considerable media attention. The Swedish mining company Arctic Gold AB is eager to begin extracting copper and gold from the mine and have spent roughly 50 million NOK on preliminary examinations (Klo & Lieungh, 2012). Reindeer herders are skeptical of the project and feel the company is imposing on their indigenous rights, as the mine is located in important calving areas. An affected herder gave this assessment when asked about the possible consequences of resumed mining in Bidjovagge: "You can think for yourself how it would be if you brought a large drilling machine into the delivery room. They say that there will be dialogue. Still, I have the feeling that we have lost already. They are like colonialists" (Nystad & Sara, 2011). The municipal council of Kautokeino, who is the final authority, has rejected the development plan on several occasions, but Arctic Gold is persistent. The company has offered the municipality, who had Norway's second highest unemployment rate (6.4 percent) in 2012 (SSB, 2013b), large compensations and investments in return of giving approval. This pressing need for employment is a compelling argument in favor of mining, especially for people who are not involved in reindeer husbandry. A person who moved from Kautokeino due to unemployment stated this to NRK Sápmi: "I know of many who have moved from the municipality because there are no jobs for them in Kautokeino. I would have moved back to Kautokeino if there had been work for me there" (Buljo, 2012). While reindeer husbandry interests have been prioritized, herders still do not feel secure. Strong forces remain in favor of mining in the municipality.

In other locales, reindeer herding considerations have not been prioritized as high as in Kautokeino. This is especially apparent in the summer ranges along the coast, where the herders often are perceived as outsiders. In these municipalities, herders risk losing against projects that could bring economic growth and employment for the local population. For example, the Kvalsund municipality approved

mining development for the Nussir mine, which has Norway's largest copper deposits. The Norwegian Environment Agency (formerly, Directorate for Nature Management) and the Sami Parliament have both opposed these actions because of its planned disposal of mining waste in the Repparfjord. Reindeer herders also fear that their pastures will be damaged as the opencast mine grows. The fight is also supported by environmental NGOs and many local inhabitants. The project has so far been delayed, and the final decision will be made by the Norwegian Ministry for the Environment.

Despite the large protests in Kvalsund, the Norwegian Minister of Trade and Industry recently issued the government's new mineral strategy to approve sea tailings placements of mining waste and enable the state to overrule municipalities that are reluctant to mining (Nærings- og Handelsdepartementet, 2013). The government is eager to make Norway an attractive country for mining investments. The backdrop is an increased global mineral demand. In a political ecology perspective, this global political economy of mineral extraction has influenced Norway's national politics and put reindeer pastoralism, which many see as an unsustainable industry, in a vulnerable position.

Conclusion

Current management of reindeer husbandry rests on an institutionalized fact that reindeer husbandry is an equilibrium system - one with a static sustainable population limit. However, reindeer herders disagree, and researchers recognize that reindeer husbandry in Finnmark resembles a non-equilibrium system (Behnke, 2000; Joks et al., 2007; Marin, 2003). If this is true, current reindeer management must be re-evaluated and should reconsider the continued struggle to reduce reindeer numbers to a defined and sustainable level. However, reforming the management system is problematic because it is embedded in a hegemonic discourse produced by powerful actors that assert reindeer husbandry as a cause of overgrazing and degradation, and thus in need of strict regulation. This discourse has also inspired the development of herd optimization theories

that are claimed to be both culturally and economically marginalizing (Reinert, 2006). From the perspective of political ecology, the issues in this paper indicate the relatively weak position of the reindeer herding industry. When confronted with authoritarian state regulations as well as national and local interests in economic development such as the opening of new mines, herders run the risk of losing. The municipal councils of Finnmark provide examples of both support for and opposition to the interests of reindeer herding. When biological researchers dispute the effects of such interferences, the risk of losing to land developments increases.

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Photo: Henriette Wathne Gelink

Letter

Electrocute the Electrifying Electric Car

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In recent years, the electric car has made a comeback as a climate change combatant. With zero tailpipe emissions and excellent powertrain efficiency, it eliminates local pollution while reducing the car's energy consumption. Moreover, it shifts responsibility away from the consumer. The power companies, who provide electricity for the cars, can now be held accountable for all emissions. Motivated by these benefits, many countries offer generous subsidies to electric car owners under the assumption that an increase in electric cars will help reduce greenhouse gas emissions. This assumption is based on solid evidence: life cycle assessments of the electric car consistently report reduced global-warming potential1 when compared with conventional vehicles (Hawkins, Singh, Majeau-Bettez & Strømman, 2013). The life cycle assessments, however, ignore a likely scenario - changes in driving habits. Because the electric car is more efficient and fuelled by electricity, the cost of driving is reduced, thus encouraging owners to drive more. As a result, the electric car should not be promoted as environmentally friendly because electricity consumption will rise, and the resulting electricity demand will not be met by renewable energy sources.

The electric car can yield more power with

less energy (its efficiency is more than twice that of a conventional car), and therefore one should expect a decrease in total consumption. But according to Alcott, Giampietro, Mayumi & Polimeni (2012), the opposite is the case. Better efficiency can actually spike consumption. William Stanley Jevons (1906) first described this during the nineteenth-century coal boom. When new and efficient steam engines were developed, Jevons observed an increased use of coal - a phenomenon fittingly coined The Jevons Paradox. A recent study suggests that the paradox also applies to the electric car. Klöckner, Nayum, and Mehmetoglu (2013) report that electric-car owners use their cars more often and are less likely to use public transport. The results are attributed to the efficient electric engine lowering the cost of fuel per mile.

When the number of miles driven increases, so does the electricity production, which will raise the vehicle's overall global warming potential. Currently, unsustainable resources generate around 80 percent of the world's electricity and contribute significantly to greenhouse gas emissions. Hawkins et al. (2013) suggest that the electric car has 10 percent less global warming potential than the conventional car - a number that depends heavily on the energy mix. Hence, around 10 percent added mileage by electric cars would counter its environmental benefit. Both

¹ Global-warming potential is a relative measure of how much heat a greenhouse gas traps in the atmosphere.

the Jevons Paradox and results from Klöckner et al. (2013) indicate that such an increase is possible (Glaeser, 2011). There are certain means to limit the number of miles driven, but such policies have yet to be implemented, as they are said to hinder economic growth (Zehner, 2012)

Electric car proponents believe the increased electricity demand will be met by renewable energy sources. While the contribution from these energy sources will increase, it is unlikely that they will have a sudden positive impact on the environment, as total consumption will also increase. Excluding hydropower, as most of the economically feasible hydropower has been utilized, renewable energy sources currently supply 3 percent of the world's electricity (International Energy Agency, 2011). This share is unlikely to change in the short term, as coal, the more af-

fordable resource, is still abundant. As long as political will is absent from further regulation and taxation of non-renewable energy sources, the transition to clean energy will be long and expensive (Zehner, 2012). Consequently, increased electricity consumption will increase fossil energy production.

The electric car has clear advantages compared to the conventional vehicle. Unfortunately, its advantages become its perils. Human psychology as described by the Jevons Paradox could encourage increased consumption, which, similar to the coal explosion, can result in grave environmental consequences. The electric car has the potential to minimize global warming, but only if its advantages are exploited, instead of following the failing path of the internal combustion vehicle.

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Photo: Akari O. Izumi Kvamme

Seeking New Lives in Former Colonies: Portuguese "Reverse Migration" to Angola and Mozambique¹

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Abstract: Amidst the trying economic times suffered by many European economies, a growing number of Portuguese have in recent years immigrated to its former colonies in search of jobs and new opportunities. Endowed with a vast wealth of natural resources and promising economic growth rates, Angola and Mozambique, which broke away from Portuguese colonial rule in 1975, have become attractive destinations. This paper explores a number of possible implications that the recent crisis-induced "reverse migration" might bring about in the recipient societies. Whereas the influx of Portuguese migrants might contribute to transfer knowledge and provide sought-after labor for rapidly expanding Angolan and Mozambican markets, it may also run the risk of producing a reversed effect in the receiving countries by potentially fuelling an already-existing unemployment problem and magnifying other deeply embedded social grievances.

- "Angola is open and available to help Portugal face this crisis"
- Angolan president, José Eduardo dos Santos (Pidd, 2011)
- "Everyone is feeling the pinch of the economic crisis, and Mozambique offers a lot of opportunities"
- Goncalo Teles Gomes, Portugal's consul general in Maputo (Raghavan, 2012)

Although Angola is ranked as an upper-middle income country and Mozambique a low-income country (World Bank, 2013a; World Bank, 2013b), the two share a number of striking similarities. These commonalities are found not only in the rudimentary infrastructures of their societies, their colonial histories, and a shared official language; the two countries also underwent a common liberation struggle prior to their independence in 1975, followed by an extended period of socialist single-party rule and violent civil wars triggering massive migrant outflows (Atlantico Weekly, 2013). On the other hand, both Angola and Mozambique are endowed with a vast wealth of natural resources:

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in 2012 and 2013, their national economies grew at a rate of seven to eight percent annually (African Economic Outlook, 2013a; African Economic Outlook, 2013b; Star Africa, 2013). These purported economic booms and bright projections for the future have rendered them attractive destinations not only for foreign direct investment (FDI), but interestingly also for tens of thousands of Portuguese migrants looking to escape the economic downturn that has gripped much of Europe.

In January 2013, the British Broadcasting Corporation (BBC) reported that over two percent of Portugal's national population has emigrated in the course of the last two years (BBC News, 2013b). Jose Cesario, the country's secretary of state for emigrant communities, specified that as many as 240,000 Portuguese are thought to have left the country since 2011 (BBC News, 2013b). Similarly, the Portuguese embassies in Luanda and Maputo have reported a 25 percent increase in the number of registered labor migrants in recent years (The Economist Blog, 2013). While empirical data and information on the education background of these emigrants remain scarce, tentative figures released by the Organization for Economic Co-operation and Development (OECD) suggest that many of the new migrants are young, highly-educated, bi- or multilingual, skilled persons who are struggling to make ends meet at home (Stratfor Analysis, 2012a). This paper discusses the crisis-induced influx of Portuguese workers to two of its former African colonies, a trend which began to accelerate from around 2011 onwards. It highlights some major factors that underlie this rather unprecedented shift in migratory patterns and deliberates the potential implications of this new trend and what it might mean for the recipient countries. The trend is likely to bring about some profitable outcomes for Angolan and Mozambican economies. However, it is imperative to maintain a cautious stance and critically consider whether economic development is likely to transform into a broader and more inclusive socio-political development that caters to the needs of ordinary citizens and contributes to narrowing enduring inequality gaps.

Push and pull: Portugal in crisis, Africa in economic bloom

Although no overarching international migration theory exists, drawing on elements from various theories provides insights that enable a better understanding of the current trend. Micro-level theories view migration as a life strategy whereby ongoing or predicted hardships, coupled with prospects of improved conditions and a brighter future, influence human movement. Hence migration literature tends to identify various push and pull factors as "intervening factors" that jointly determine the likelihood and the direction of migration (Beets and Willekens, 2009, p. 2). Meso-level migration theories stress the role of social networks as a basis for social capital and cohesion. Furthermore, macro-level theories focus on entire systems of mobility and the interconnections found among the various communities of sending and receiving countries that generate flows of remittances, trade and investment, services, information, and knowledge (Beets & Willekens, 2009).

As former colonies, Angola Mozambique share numerous historical, political, economic, and ethnic links with Portugal. Historically, these links tended to foster a kind of dependency of the South on the North. In the decades following independence, the political and socio-economic hardships confronted by war-torn Angolan and Mozambican societies prompted a sustained and primarily northward flow of African refugees and economic migrants (Adepoju, 2000). Mozambique and Angola, two countries that traditionally exhibited a high netout migration flow (Lucas, 2006), have become prime destinations for a growing Portuguese workforce in crisis. Portuguese labor migration to its former colonies exemplifies a response to the set of underlying factors of "the push of poverty" and "the pull of opportunity" (Adepoju, 2000, p. 383).

Portugal is one of the countries hardest hit by the Eurozone crisis. Its economic calamity is rooted in "a kind of Dutch disease" (de Sousa Andrade & Duarte, 2011, p. 195), which is characterized by stagnation, public and private indebtedness, diminishing competitiveness, rising levels of unemployment, financial insecurity, and deepening poverty (de Sousa Andrade & Duarte, 2011). Ultimately, it has turned the former migrant-receiving destination into a country of emigration. Additionally, poor management of public funds and the Portuguese government's recurring pronouncements of further austerity measures may be viewed as a key impetus for the mass departure of its labor force (Pidd, 2011; BBC News, 2013a). Thus, the rapid deterioration of economic and socio-political conditions in Portugal and the gloomy prospects of a rather hazy future comprise major factors that have stimulated a growing outflow of workers in search of a "fresh start" (Akwagyiran, 2013, April 5).

If the Eurozone crisis has acted as a principal push factor driving Portuguese emigration, the perceived economic booms of Mozambique and Angola can be understood as pull factors, drawing the flow of many migrants towards the southern hemisphere (Pidd, 2011). Governments, scholars, industries, and media circles have depicted both countries as contemporary Africa's "success stories" of peace, stability, and prosperity (De Renzio & Hanlon, 2007). These countries boast two of the world's most rapidly expanding economies and have exhibited robust growth over the past few years, an achievement largely accredited to abundant natural resources and government reform as well as efforts to implement better fiscal policies and foster macroeconomic stability (African Economic Outlook, 2013a; African Economic Outlook, 2013b).

Angola is considered among the most resource-rich countries in Africa, with its enormous endowments of oil, gas, diamonds, minerals, and other raw materials. Mozambique, an increasingly popular tourist destination, recently discovered unexploited reserves of coal and natural gas and is expected by many analysts to become a major mineral exporter in the coming decade (Raghavan, 2012). The expansion of these countries' economies has not only sparked a keen interest among Portuguese and other international investors, but also has fostered a demand for skilled professionals, particularly within the urban development and architecture sector, the mining and natural resource extrac-

tion industries, and the growing medical industries (Raghavan, 2012).

Besides these perceived opportunities for European entrepreneurs and skilled labor, cultural factors are also worth noting. Whereas the majority of Portuguese migrants seek work within the European periphery, not speaking the language of a destination country is an acknowledged barrier to movement (Hannon, 2012). This obstacle, however, is readily overcome in Angola and Mozambique due to the countries' "shared culture, language, and colonial experience" (Adepoju, 2000, p. 383). In effect, this contributes to blurring cultural distinctions, something that eases the entry and integration of Portuguese labor into the respective domestic societies.

Deliberating implications: What does this mean for Angola and Mozambique?

International migration and development are intertwined in a highly complex and multidimensional relationship, and a myriad of links exist between them. Nonetheless, Tanja Bastia (2011) argues, "there is little conclusive evidence on whether and in what ways migration contributes to "development" (p. 584). Indeed, the tensions that emerge when attempting to "measure" the impact of migration renders it challenging to accurately predict and assess the implications of the Portuguese influx for Angolan and Mozambican development. Moreover, it is difficult to answer the question of who exactly is benefiting and in what ways. Furthermore, it appears that related research has been carried out from a predominantly Eurocentric point of view. Whereas several studies and reports have been published on the consequences of the Eurozone crisis on European societies and the consequent shifts in patterns of international migration, little material has emerged regarding African perspectives and what the recent flows of European migrants might mean for the region.

The current Portuguese emigration presents a number of possible implications for the receiving countries. As many of the migrants are educated professionals, one commonly cited conjecture is that a Portuguese "brain

drain" may actually contribute to "brain gain" for Angolan and Mozambican recipient sectors (England, 2012). Previously, brain drains were largely seen as a problem of the developing world, and the African region in particular, as waves of qualified African academics and highly skilled professionals left the continent in search of better working conditions (Adepoju, 2000). Today, however, Portugal – like Greece, Ireland, and Spain – is facing this very problem and risks losing a significant portion of its highly skilled workforce (Hannon, 2012). On the other hand, the rapid expansion of Angola and Mozambique's extraction industries is thought to contribute to the process of urbanization, fuel new demands, and stimulate job creation within the technology, agriculture, energy, and professional service sectors (Stratfor Analysis, 2012b). This, though, has led to increased pressures on their education systems. Consequently, there is a need to amend and accelerate education and training programs to secure a domestic labor force for the future (African Economic Outlook, 2013b).

It is worth noting, nonetheless, that the incoming waves of Portuguese migrants have produced mixed reactions and fuelled ongoing debate about the pros and cons of the trend. Those in favor of incoming foreign laborers argue that the Portuguese influx presents a winwin situation, whereby the foreign migrants are seen to fill an existing labor demand that cannot be satiated by the local workforce alone. In this context, foreign immigrants might bring in muchneeded expertise in certain sectors. However, the distribution of Portuguese workers in Angola and Mozambique reveals a marked concentration in specific sectors and underrepresentation in others. This could be viewed as an expression of the current opportunity structures in the African countries and the deficient human capacity infrastructure among the local labor forces.

Skeptics, on the other hand, argue that the Portuguese arrive with their own financial baggage (England, 2012). These critics further claim that the Portuguese are not in the position to inject as much money into the domestic economy as desired, because a considerable portion of their income is sent as remittances to support

their families back home. Thus, it is important both for the local economies and for the benefit of local populations that the domestic governments invest in improving the access to and quality of its education schemes and build local human capacity, rather than relying too heavily on imports of skilled foreign labor to satisfy demands. A population more capable of fulfilling the aggregate skill level that is required to ensure the effective functioning of national industries, commerce, and the state would boost and reinforce local entrepreneurship and project management. This, in turn, is likely to contribute to strengthening domestic bargaining power to protect local interests and ownership.

Furthermore, the Portuguese influx has given rise to concerns about the risk of displacing legally unprotected Mozambicans and diminishing opportunities for the local workforce (The Stream, 2013). Although there is a law that stipulates that several domestic nationals must be hired for every foreign worker employed by local companies (Raghavan, 2012), it is embedded in a flawed system with many inherent loopholes. It thus remains difficult for many Mozambicans to find work. Numerous locals, though, such as construction workers, have in recent years become increasingly vocal about the alleged differential treatment and higher wages paid to Portuguese workers "for doing the same work" (Raghavan, 2012). Such hostile reactions and perceived humiliation may risk reinforcing colonial enclaves and ignite social unrest.

Maputo, the capital of Mozambique, is in a particularly vulnerable position as it has witnessed soaring rent and property purchase prices, the latter doubling in the past four years (The Economist Blog, 2013). Although many highrise urban development projects are under construction, few Mozambicans can afford to live there (The Economist Blog, 2013). There is possibly a risk of creating a kind of "bubble economy" that is mainly tailored to, and targets, the thriving expat communities and higher-income locals, while neglecting the needs of lower- and middle-income households. The lack of affordable housing could effectively push many locals

out of the urban housing market. Hence, whereas immigration might offer some relief to social tensions generated by rising unemployment in Portugal, it may produce a reversed effect in the receiving countries by potentially invigorating an already-existing unemployment problem and magnifying other deeply embedded social grievances (Stratfor Analysis, 2012a).

In light of lingering colonial tensions and the historically disadvantaged bargaining position of developing nations, some skeptics claim that the FDI and migrant flows to African nations represent a form of neo-colonialism (Raghavan, 2012). Neo-colonialism is grounded in the ideologies of market liberalism, accumulation of capital, and profit maximization. Accordingly, it is seen as a contemporary imperialism that might work to reinforce hegemonies and socio-economic or political control. National leaders in developing countries might resort to a blind embrace of institutional structures tailored to entice foreign investments whilst paying insufficient attention to the distribution of revenues and the impacts on local communities, something that the Angolan and Mozambican governments can ill-afford. Angola and Mozambique exhibit a poor social safety net record, rank low on human development indicators (African Economic Outlook, 2013a), and have undergone insufficient structural transformation (African Economic Outlook, 2013b). In Mozambique, approximately 82 percent of the population is reportedly living under the global poverty line of USD 2 per day (African Economic Outlook, 2013b); the corresponding figure in Angola is lower, but still a substantial 37 percent (African Economic Outlook, 2013a). Mozambique, which hosts one of the world's fastest growing economies, also remains one of the world's most poor, underdeveloped, and aid-dependent nations (African Economic Outlook, 2013b).

The migration and development nexus closely relates to the question of effective governance and the role of the state in the multifaceted development process. The ways that the international community has tended to exercise its influence in the past has often shaped the way in which African officials respond to their

requests and pressures. Recent events may have marked a shift away from the time when African nations were lacking an independent position when negotiating with Western governments, foreign investors, and donor agencies (De Renzio & Hanlon, 2007). Ideally, this shift may, through concerted regional efforts, help bolster "the bargaining power of individual African countries to both accelerate infrastructure delivery and insist upon higher levels of localization, technology transfer, and skills development" (Creamer, 2013).

Conclusion

The recession-induced Portuguese influx to its former colonies, Angola and Mozambique, is rooted in deeply structural conditions and is also, to a significant degree, a product of historical and political construction and the common language factor. It not only signals changes in the contemporary migration patterns and the ways in which migration flows are channeled internationally, but also highlights the lingering historical and socio-political ties of the colonial period. Indeed, it suggests that the modern world is currently witnessing shifts in global power dynamics. Although south-north and south-south migration are well documented phenomena, the current frameworks for international north-south migration is lacking and is in need of improvement. As the Portugal-Africa dynamics have been picked up by many global media outlets lately, researchers, multilateral organizations, and government bodies will presumably take interest in the unfolding trend, leading to the production of more comprehensive empirical and analytical materials in the near future.

What is apparent is that as Angola and Mozambique strive to develop more dynamic and competitive knowledge-based economies, including enhanced capacities for sustainable development, employment opportunities, and social cohesion, their leaders and policy-makers must not be distracted by prospects of short-term profit. The new migration trend should prompt Angolan and Mozambican leaders to review their immigration policies. Measures to manage the new waves of foreign labor

ought to be coupled with enhanced efforts to mitigate deeply entrenched issues of inequality in the social, political, and economic spheres. This must take place hand in hand with efforts to strengthen eroding institutions, including education systems. It also requires a renewed focus on building domestic human resource capacities, ensuring social security through the provision of public safety nets, effective labor protection measures, and continuous poverty reduction initiatives. The challenge is inevitably that of striking a workable balance that can accommodate these changes and turn them into positive impacts.

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