Killing with Kindness: is whale watching in the Salish Sea killing the Southern Resident Killer Whales?

– How the social representation of the endangered Southern Resident Killer Whales has a big incentive on locals' actions to protect the pods

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Abstract

The fish-eating Southern Resident Killer Whales (SRKW) live in the Salish Sea and have been listed as endangered by the U.S and Canada in early 2000s. Their population is still declining with only 72 individuals left in May 2020. Reasons for their endangerment go from toxins in the water to underwater disturbance and lack of prey, although the latter is favourited by scientists. The whale watch industry is being blamed by many because of the number of whale watching boats on the water and their physical proximity of the SRKW.

This thesis is focusing on the inhabitants of the Salish Sea and their perception of the SRKW and the whale watch industry and how they are making sense of the situation. Through the use of the Social Representations' theoretical framework, it is shown that mechanisms such as stories, anthropomorphization, scapegoating and psychological ownership are used by the interviewees to strengthen their social representation of the SRKW but also to take decisions or actions for the pods' survival. The conclusion of this paper summarizes that the whale watch industry is unfairly scapegoated for its activity as it is not the only actor responsible for the SRKW's endangerment and disappearance from the Salish Sea. Even more, the whale watch industry is one of the only actors involved in the pods' survival to have made changes in its practice by creating voluntary guidelines which limit the speed and distance a boat can get around the SRKW. In order to save the endangered SRKW from extinction, most interviewees agree that the priority should be put on solutions to bring the pods' favourite prey, the Chinook salmon, back in the Salish Sea.

Keywords: SRKW; killer whales; endangerment; whale watch industry; United States; Canada; social representations

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Abbreviations

To make it easier for the reader, you can make a list with common abbreviations in alphabetical order. Here you have a table you can use to make your list.
See example below:

SRKW	Southern Resident Killer Whales
MWT	Marine Wildlife Tourism
SLU	Swedish University of Agricultural Sciences
OTF	Orca Task Force

1. Introduction

Marine Wildlife Tourism (MWT) has been expanding in the last decade due to one specific activity that is whale watching, described by the International Whaling Commission as "*any commercial enterprise which provides for the public to see cetaceans in their natural habitat*". It has become a billion-dollar industry in the last five decades, attracting almost 13 million tourists in 2009 and over 15 million in 2011 (Hoyt, 2011 in New et al, 2015). The first "paid" trip took place in 1955 in San Diego when a fisherman offered people to go see whales for 1$ (Hoyt, 2009). Decades later in 1983, the IWC recognized whale watching as an alternative way of commodifying whales, replacing whaling by the mere activity of watching marine animals from boats, which is considered as a non-consumptive touristic activity. Nowadays, whale watching can be done from boats but also from the air or land using a commercial company of private means such as renting or buying a boat, with the choice of observing from afar, listening to, or swimming with the cetaceans targeted in this activity (Corkeron, 2006).

Responsible whale watching is viewed as a form of ecotourism (Orams, 2000), which can be described as a form of sustainable tourism aiming at utilizing and promoting conservation and preservation of local resources (JES, 2010 in Wearing et al, 2014) through education and awareness of the tourists while respecting the local communities and non-human animals. To be considered as sustainable, tourism should not cause the decline of a population (Higginbottom, 2002) as well as its endangerment or extinction in any sort. Yet many critiques have been voiced on the validity of the ecotourism label for whale watching.

This thesis is focusing on one area called the Salish Sea, situated between Washington State in the United States and British Colombia in Canada. Whale watching started there in 1984 (Koski & Osborne, 2005) and is now one of the main touristic activities. It helps the local communities to thrive financially from spring to fall while educating on the many species living in the area. The activity is mainly focusing on killer whales as several ecotypes are living in Salish Sea and around. This paper will be dealing with three specific groups of orcas called pods (J, K, L) called the Southern Resident Killer Whales (SRKW) which is composed of only 72 individuals. They are fish-eating orcas (Noren et al, 2009) and the most known pods

of killer whales in the world as they have been studied since 1976 (Weiss et al, 2020) by the Center for Whale Research. They have been listed as endangered under Canada's Species at Risk Act in 2003 and the U.S Endangered Species Act in 2005 (Shields et al, 2018). The main threats to their survival are said to be the decrease in abundance of their main prey the Chinook salmon, noise disturbance from commercial and private vessels, and increased toxins in the water (Wasser et al, 2017). International attention was brought to the pods' endangerment when in summer 2018, a member of the pods called J35 Tahlequah was seen carrying her dead calf's body for over two weeks.

This is how I got to know the SRKW and the situation in the Salish Sea. I kept an interest in the news regarding the pods but saw no improvement after a year. I started to wonder about a possible human-wildlife conflict or interaction that could worsen the SRKW's chance of survival and decided to focus my thesis on them. In order to get a better understanding of human-wildlife interactions and how it influences the tourism activities, I first wanted to focus on the locals' perception of the ecotourism implemented around the SRKW, how it differs from regular tourism and the decisions taken to protect this species from more harm. However, I realized after several interviews that one topic kept on coming back: the whale watching boats. The thoughts on them varied from one interviewee to another, and I understood that they were either seen as the main reason for the pods' endangerment, as part of the problem or innocent. I decided to switch the focus of the thesis to the perception of the SRKW and of the whale watch industry and see how they each influence the decisions made and actions taken for the pods' survival. I was also interested in understanding how people form their opinion on the whale watch industry, how they are reacting to its practice, and find out if the blame on this particular industry is valid or if it is an easy target for other industries involved in the SRKW's endangerment.

This paper is focusing on the qualitative study focusing on the interviewees' perceptions of the SRKW and the whale watch industry and the mechanisms used to make sense of them. An interest is also put on the decisions and actions taken by different actors to mitigate the pods' population decline.
 Fourteen semi-structured interviews were conducted through the phone and computer with locals from the Salish Sea region with diverse backgrounds (see Table 1). The topics tackled revolved around the perception of the SRKW, tourism, the whale watch industry and the governmental regulations implemented in the Salish Sea. The analysis of these interviews was done with the combination of the social representations' theoretical framework (Abric, 1993), the phenomenological approach and social constructivism worldview.

2. Literature Review

This chapter focuses on the books and articles written about topics that is of importance for this thesis: the tourism activity that is whale watching and knowledge about the SRKW on the dangers they face and their behaviours around boats. This will help to understand the context of the thesis better and have basic knowledge on the pods and their endangerment before getting into the aims and research questions building this thesis.

2.1. Whale watching and its implications

Whale watching has become a "*nature-based business and leisure activity*" (Andersen & Miller, 2006, p.111) that is present all over the world, with a particular interest in going on the water to observe cetaceans in their natural habitat. Several positive aspects have been enumerated regarding the impacts and consequences of whale watching, the main one is that it brings financial help to local communities whose livelihood usually depends on such tourism (Bearzi, 2017). However, it also gives the opportunity for the communities to care for their own marine environment and create more jobs to work for its conservation at their level (Wearing et al, 2014). Another important aspect of whale watching is the importance put on educating the tourists and communities about the marine life around them. The hope is that when tourists are confronted to the animals and their environment, the knowledge they get from naturalists on boats and the realization of the importance of their conservation will motivate them to get involved in preserving these species (Seely et al, 2017; Duffus & Darden, 1993; Wearing et al, 2014; Bearzi, 2017; Parsons, 2009). The roles of naturalists on boats and their knowledge are vital for a good whale watching experience (Hoyt, 2009). Tourists have expectations to be met during the trip, such as seeing the animals, but if it does not happen, everything falls on the naturalists to make the trip still worth it and avoid complaints or disappointment (Andersen & Miller, 2006).

Other than the importance of the education made on board and the creation of personal involvement of tourists in marine life conservation, education also complements the existing regulations, as whale watching boats act as intermediaries between the recreational boats and the regulations to educate on the behaviour to

have on the water, but also to protect cetaceans (Andersen & Miller, 2006). However, education and awareness, while trying to emotionally connect the tourists to the cetaceans and their environment, have more impact on the short-term rather than long-term. Studies show that few actually go through with long-term changes (Corkeron, 2006; Stamation et al, 2007), which ask the question whether the disturbance faced by cetaceans for educational purposes are at all worth it.

Another positive aspect of whale watching that can not be overlooked is the opportunity for scientists to go on whale watching tours to study marine mammals and produce papers that help the readers and the scientific community to better understand the lives but also the dangers faced by cetaceans (Erbe, 2002).
Unfortunately, the whale watch industry balances the numerous positive aspects with just as many negative ones, fissuring the idea of responsible whale watching as the perfect example of ecotourism in MWT (O'Connor et al, 2009).
A first issue would be that vessels disturbance can create short-term behavioural changes which can extend to long-term changes if the disturbance is not managed (Seely et al, 2017). Behavioural changes include effects on the cetaceans' communication and singing (Wearing e al, 2014; Erbe, 2002, Bearzi, 2017; Duffus & Dearden, 1993) and decrease of foraging time (Williams et al, 2002). Parsons (2012) added that even if change in behaviour is not noted from the observed cetaceans, it does not mean that they are not impacted by the presence of boats but that they might have to tolerate it because this area is of importance for the whales (e.g. where they feed or protect themselves from predators) or they do not have the skills to feed somewhere else. Another issue can be physical disturbances, with cuts from boats' propellers when people did not see the animal under their boat (IMCC in Cressey, 2014). It is important to notice that this disturbance comes just as much from badly-managed whale watching boats as from commercial vessels (e.g. cargo ships, ferries) and recreational boats. Indeed, they might not know where or how to look for marine mammals in the waters, or do not respect the guidelines and regulations put in place (Frink, 2014; Erbe, 2002; Hoyt, 2009; Stamation et al, 2007; Orams, 1997), which add challenges to the already complex management of whale watching (Wiley et al, 2008).

Regulations and guidelines can also create as much chaos and dangers as they are trying to solve. While they are supposed to mitigate boats' impacts on cetaceans (Corkeron, 2006), there are few that prevent disturbances (e.g. noise; closeness to the animals) and interaction with the animals. However, since then, improvements have been made in some parts of the world regarding these issues (Houghton et al, 2015). Other issues come from the lack of enforcement of said regulations (Hoyt, 2009, Bearzi, 2017), and if there are they often differ whether they are local,

national and international which create confusion for private and professional boaters, especially when in transboundary waters (Trave et al, 2017).

Finally, the general increase of interest in MWT, especially of the whale watch industry have already hindered the survival of cetaceans, and the situation can still worsen, especially if more tourists go on the water, making the area overcrowded and propitious to incidents and endangerment of the wildlife observed (Bearzi, 2017; Hoyt, 2009). Another issue is that if the number of commercial and recreational boats increase, it will be even harder to control and regulate the vessels than it already is now (Corkeron, 2006).

2.2   The science around the SRKW

The SRKW are the three pods (J, K, L) of killer whales that this thesis is focusing on. As said in the introduction, they are the most known pods in the world (Giles & Koski, 2012), and they have been listed endangered since early 2000 by the United States and Canada's governments. (Shields et al, 2018). Because of the area where they live during parts of the year, the Salish Sea, they are of interest to many, tourists and scientists alike. Several studies have been conducted to try and understand the effects of the regulations and guidelines put into place for the killer whales' survival, what the main dangers to the pods' survival are, if whale watching vessels have a big impact on the endangerment of the SRKW and how their behaviour is affected with the environment they live in.

2.2.1 Main issues

Regulations and guidelines implemented in the Salish Sea have been evolving with changes in the whale watch industry and its increasing demand, but also with the population decline of the SRKW. Koski & Osborne (2005) talked about the self-regulation on the water of the whale watching community as one way of managing and mitigating impacts of commercial vessels on the orcas. However, if this idea of self-regulation may seem like a plausible answer to some of the issues, other regulations can create multiple problems. Regulations often change and differ in the transboundary waters of the United States and Canada, making it hard for recreational and commercial whale watching vessels to respect them (Houghton et al, 2015; Giles & Koski, 2012). Articles write that the United States created the first guidelines in the Salish Sea in 2002 (Koski & Osborne, 2005), with regular improvements and changes such as the increase of distance between the SRKW and the commercial and private vessels from 91m to 183m, and 366m from the path of the orcas (Houghton et al, 2015). The issue comes with the fact that the Canadian waters only demanded 100m between the vessels and the whales (Houghton et al, 2015) which generated confusion as to how to conduct a legal and respectful whale

watching outing when the limits of the Canadian and American waters are not identical (Houghton et al, 2015; Giles & Koski, 2012).

Most scientists agree on the reasons for the decline of the population being the lack of prey abundance, boats disturbance and the amount of toxins and chemicals in the water (William et al, 2009; Lacy et al, 2017), but unsure which one has more impact on the others (Wasser et al, 2017). Studies have shown that the presence of prey, or lack thereof, is coinciding with the orcas' presence or absence (Shields et al, 2018), survival (Ford et al, 2010; Lundin et al, 2016; Ford et al, 2010) and reproductive issues with higher chances of miscarriages (Wasser et al, 2017) among other things. Analysis of SRKW's scats also showed that the lack of prey abundance creates psychological and nutritional stress (Lundin et at, 2016). The SRKW have a specific species of salmon they feed on because of the percentage of fat in their body, which is the Chinook salmon. In order to feed on this species, the pods are getting used to the busy waters (Gill et al, 2001) with boats from the military, whale watch industry, fishing boats, ferries and more.

The three pods represent an important part of whale watching activities in the Salish Sea but they are only one of many types of boats that cause disturbance to the SRKW, other being recreational boats, fishing boats, military vessels, freights and so on (Ayres et al, 2012). They all have impacts on the wellbeing of the SRKW. A study from Seely et al (2017) showed that between 2006 and 2015, 60 percent of all the incidents involving killer whales in the Salish Sea were committed by recreational boats, 19 percent from Canadian whale watching boats and 11 percent from American ones. These numbers show that whale watching vessels might not be as impactful and dangerous as previously thought, although still not innocent. Other studies have shown that vessels numbers can also play a role in the SRKW's population decline, with up to 60 and 70 motorboats seen at one time, adding 40 kayaks to the numbers (Erbe, 2002), or 72 commercial vessels during the day (Foote et al, 2004).
Vessels presence and traffic have been implicated in the SRKW's decline through collisions or noise disturbance, creating stress and complication to find food via echolocation (Williams et al, 2009; Ayres et al, 2012) and general communication with the other members of the pod (Foote et al, 2004). Houghton et al (2015) added that the vessels' speed was the most impactful regarding underwater noise, and that it might have degraded the quality of the SRKW's habitat (Jensen et al, 2009).
Another issue regarding vessels is the lack of knowledge or education on the regulations in place in the Salish Sea for the protection of the SRKW. In 2015,

almost half of the vessels which talked to Soundwatch[1], admitted to be unaware of the guidelines and regulations, percentage that is barely below the previous years'. However, as soon as enforcement vessels are present on the water, incidents and violations of the regulations quickly decrease (Seely et al, 2017).

Toxins present in the water also play a role in possible reproductive failures (Wasser et al) and the concentrations are more important, as well as dangerous for their health, when the SRKW are starving (Lundin et al, 2016).

2.2.2 SRKW behaviours in the presence of vessels

Vessels disturbances coming from noise, closeness from the whales or general reckless behaviours are shown to be one of the many issues worsening the SRKW's endangerment. These disturbances impact the whales in a way that are forced to change their behaviour in the short-term to adapt or escape the situation they are in (Foote et al, 2004).

The first example observed is the orcas modifying their path to be less predictable in order to escape from private and commercial whale watching boats coming too close to them (Williams et al, 2002). Lusseau et al (2009) added that when vessels are closer than 100m from the SRKW, the orcas seem to dedicate more time traveling away from the boats rather than foraging or socializing. The same issues of boats' proximity made the SRKW's surface-active behaviour happen more often, costing them more energy than necessary in a complicated environment where food is limited and energy should be kept for foraging rather than avoidance tactics (Noren et al, 2009). Foote et al (2014) discovered that the SRKW have to adapt their call durations depending on how loud the underwater noises are, preventing the orcas from efficient foraging or communication with other pod members.

It is important to notice that most of these articles have been written or published in the early 2000s and that the whale watch industry has since implemented voluntary guidelines preventing boats to come too close to the pods, possibly improving the noise disturbance.

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[1] Soundwatch is an educational program present on the water to advise boaters on the right behaviour to conduct around the SRKW and other wildlife, while also collecting data on boats activities around the San Juan Islands (Koski et Osborne, 2005).

3. Problem statement, aim, research problem and questions

3.1. Problem statement

The Salish Sea is home to a diversity of marine, air and land species as well as known for beautiful landscapes and nature. However, its transboundary waters, with one part in the U.S and the other in Canada, create a complex situation. Each country can make different decisions about the lands and waters in its own territory which can be confusing for those who are unaware of the limits. The endangered SRKW live in these intricates waters and can go back and forth between both countries several times in one day, making whale watching activities challenging for the naturalists on board. Both countries have different regulations regarding whale watching activities and distances to respect, creating more issues than solving existent ones. If the whale watch operators are able to follow these regulations thanks to of their extensive knowledge of the area and marine wildlife, recreational boaters might not be aware of said regulations, neither on how to locate an animal, or how to behave around it which can create incidents. Several other kinds of boats are passing through the Salish Sea such as military boats, ferries and freights, disturbing the cetaceans living in the surroundings. Despite the busy waters coming from human activities, personal readings and interviews for this thesis show that the whale watch industry is considered as the main reason for the SRKW's endangerment by some locals and other institutions. While numerous scientific papers on the impact of whale watch boats on the pods have admitted that they might be guilty of some of the noise, it is never stated that they are the sole problem (Giles & Koski, 2012; Hougton et al, 2015; Lusseau et al, 2009; Seely et al, 2017; Williams et al, 2009). Data collected during the interviews vary between the whale watch boats being the only responsible for the pod's population decline, them being part of the problem, and them being innocent thanks to the voluntary guidelines put in place.

Therefore, focusing the thesis on the locals' perception of the SRKW and their experience with the whale watch industry in the Salish Sea is important in order to understand how people understand things the way they do and how they act on it. To see the process of sense-making depending on each interviewee's lived experience and understanding of an encounter with the pods of a whale watching boat.

3.2. Aim, research problem and questions

The interest in this paper is to better understand the situation in the Salish Sea regarding the SRKW and learn about the reasons for their endangerment through the eyes of locals that dedicate their personal and professional time to protect this subspecies. Another interest relies on the perception of the whale watch industry in the area and try to determine if it has as much of an impact of the killer whales and their endangerment as it is said by locals and written by media.

Taking all of the above into consideration, the aim for this thesis is:

Aim: To get a deeper insight into how human-wildlife interactions are socially represented in the context of the SRKW's endangerment in relation to wildlife tourism activities, with a focus on the perceptions and understandings of the community fighting for the pods' survival.

The main research question goes more into details as to what I am looking for and includes the theoretical framework used throughout the thesis, while the other research questions tackle each topic of interest:

Main research question: How is the endangerment of the SRKW in relation to wildlife tourism, especially whale watching activities, socially represented by the communities around the Salish Sea?

Research questions:
- What is the significance of interactions with the SRKW for locals?
- How does the local community perceive the impact of whale watching on the whales?
- How are the other actors involved with the SRKW's protection working to mitigate their impacts on the pods and how is this socially represented?

4. Theoretical Framework

Now that the situation in the Salish around the SRKW has been established, the next step is to talk about the lens chosen as well as the different mechanisms used by the interviewees to explain their perception on the SRKW.

4.1 Social Representations

The theory of social representation was first spoken of by Moscovici, who had an interest in studying phenomena in modern societies through the social psychological framework. The idea is that only specific conditions (historical, cultural and macrosocial) can make sense of the psychosocial phenomena studied (Wagner, 1999).

Moscovici (2000) defines social representations as "*a system of values, ideas and practices*" (pp. 13) that help individuals to thrive in the world they live in while providing tools to make sense of unknown phenomena, tools that allow for efficient communication in a social group. A broad understanding of social representations was written by Höijer (2011):

"social representations are about processes of collective meaning-making resulting in common cognitions which produce social bonds uniting societies, organisations and groups. It sets focus on phenomena that becomes subjected to debate, strong feelings, conflicts and ideological struggle, and changes the collective thinking in society" (p.3).

Social representations are created when a social group is faced with a new phenomenon that can fissure the identity created and implemented in the group. The objects they relate to are usually either social, cultural or symbolic (Höijer, 2011). Wagner (1999) created an interesting schema to explain how social representations are born and dealt with by social groups. A specific group or community has a known and accepted identity and ideas of what surround them and know how to react to familiar phenomena. Identity and the social group's existence can however be fissured with the inability of people to make sense of a new

phenomenon. This threat to one's identity but also lifeworld in general is also called "symbolic coping". To counter this "identity crisis", the anchoring technique is used, where a social group frames the phenomenon by naming it as well as making sense of it through pre-existing characteristics that are able to be communicated on understood by all members of the group, also called the mechanism of objectification. This usually happens after the familiarisation through discourses and socially represented knowledge of the phenomenon through the social group's understanding and identity, until it creates an objectification that the group can relate with and make sense of (e.g. image, symbol).

Once those steps are achieved, the phenomenon becomes a social representation that will uphold the group's identity and be a part of their lifeworld and general understanding of their surroundings. This social representation will also add a new social object to social group's lifeworld. A social object is defined as an entity which can be symbolic or material, that has attributes understood by individuals from a group in order to be able to communicate about it (Wagner, 1998). What was an unknown phenomenon now becomes part of a group's identity once they have made sense of its ideas and aspects through familiar discourses and experiences, and this process is happening every time a new phenomenon arises.

The social object and the social group are not opposed but intertwined with one another (Castro, 2006), or even co-constructive (Wagner, 1998). The social object is not only constructed but also related to a social group through the social representations while their shared meanings come partly from past events and experiences lived by the community (Wachelke, 2011; Wagner, 1999; Moscovici, 1963). These social representations then make sense of the social object through communication between individuals, allowing the community or social group to have similar understandings of things to avoid any damage to the group's identity (Moscovici, 1963. Wagner, 1999, Bauer & Gaskell, 1999).

To completely achieve that homogeneity between individuals of a social group, two systems in social representations highlighted by Abric (1993) have to be distinguished. First, the central core elements, which reunite three conditions, namely historical, cultural and ideological, in order to create a "*collective memory of the group and the system of norms to which it refers*" (Abric, 1993, p.75). The core elements form the stability of the social object through the level of importance they have on the homogeneity of the group. Peripheral elements are the other system found in social representations. Although their value might not match the ones of the core system in term of stability, they are critical when adapting to unfamiliar phenomena that might challenge the social object and its central core elements. In other words, they exist to protect the core system from the external and

unknown pressures putting the stability and identity of the group at risk (Lo Monaco et al, 2016).

Moscovici and Markova (2000) pay a special attention to the role of social representations in communication when writing "*We cannot communicate unless we share certain representations*" (p.274). Social representations are framing the way people communicate to others and about others, depending on the meanings the group create of the social object (Howarth, 2011). Wagner (1999) adds that individuals prefer discussions with people that share similar understandings of a phenomenon. In other words, social representations theory describes how new phenomena are communicated and made sense of in order to be perceived as part of the social group's identity (Höijer, 2011).

In order to focus on groups or communities' understandings and creation of meanings of a social object with an interest in actions taken to enhance the validity of the meanings created, the social representation framework seems the most fitting for the thesis. This particular lens is helped with a qualitative phenomenological approach to it, insisting on the lived experiences of the interviewees and the impacts they have on their professional activities.

Social representations theory puts an emphasis on how the community studied make sense of and communicate about the phenomenon they are faced with depending on the historical, cultural and ideological conditions embedded in the community's identity. To understand this, Abric's social representations and their systems (central and peripheral) will be used. This identity is building the perceptions of the social object, but also the actions that result in such perception, giving a basic understanding of why people feel and do what they do. In the particular scope of this thesis, the focus will be put on the social representations of the Southern Resident Killer Whales shared by the interviewees. How they perceive the pods through the identity they build in their community, how they make sense of the personal encounters they have with the killer whales will form the central core elements. The peripheral elements will allow the research to further understand how individuals of each community behave around the central core elements and what measures are taken to make sense of the social object.

4.2   Anthropomorphization / psychological ownership / scapegoating

These mechanisms for social representations are used by the interviewees in their perception of the SRKW and will be discussed in more depth later in the thesis.

4.2.1 Anthropomorphization

Anthropomorphism is defined as "*the use of human characteristics to describe or explain nonhuman animals*" (Horowitz & Bekoff, 2007, p.23) or "*the attribution of human mental states or affects to non-humans*" (Airenti, 2018, p.2). Guthrie (1997) sees anthropomorphism as a tool people use to make sense of a new phenomenon or anything that is unfamiliar and might endanger their identity. People use their knowledge of the human world to interpret an action, phenomenon or characteristic observed in the nonhuman world that is unknown to us. They implement aspects and meanings of things that matter to the survival of our identity to a world that does not possess them.

As Guthrie (1993) writes, anthropomorphism is an answer to the uncertainty of the world that is perceived, while Horowitz & Bekoff (2007) add that the personification of a nonhuman animal is also a method to predict and explain their behaviour, enhancing the need to make sense of everything that is unfamiliar to us. More than a method and a tool to keep our identity untouched, anthropomorphising also displays the emotions and relationships understood by the human towards the nonhuman animal.

4.2.2 Psychological Ownership

Pierce et al (2001) define psychological ownership as having a sense of possessiveness towards an object, which can be material or immaterial. This object is connected to the self so much that it becomes a part of the extended self through the psychological attachment individuals have to it (Belk, 1988) to the point of feeling like they have a right to the object, entity or idea because of their association with it (Pierce et al, 2001; Pierce et al, 2003).

"What do I feel is mine?" by Baer & Brown (2012) helps making sense of this feeling of attachment toward an object, entity or idea that one may or may not possess. Psychological ownership exists outside of legal ownership aspects, and can rise in three different situations: when individuals control the target of ownership, when there is an intimate knowledge of the target of ownership, and when they invest their self into the target of ownership (Pierce et al, 2001, 2003 in Brown et al, 2013). Matilainen et al (2017) write that the greater control one has over the target of ownership, the more connected to it the individual feels. A relationship between individuals and the object is created by the knowledge they have of it while Ikävalko et al (2006) writes that investment of the individuals into the object is also helping with the development of feelings and sense of ownership towards it.

From a powerful ownership feeling can arise a sense of responsibility (Brown et al, 2013; Pierce et al, 2003) and care (Dipboye, 1977 in Matilainen, 2017) toward the

target that can create the need to "defend" or "mark" it (Brown, Lawrence & Robinson, 2005 in Baer & Brown, 2012). Individuals protect the object their self is connected to in order to keep the social representations and identity in place in the individual's mind, but also in the community in general, as Pierce & Jussila (2010) write that a social group can also feel the ownership of an object as they have a shared identity.

4.2.3 Scapegoating

Rothschild et al (2012) define scapegoating as "*the act of blaming and often punishing a person or a group for a negative outcome that is due, at least in large part, to other causes*" (p. 1148). In other words, the act of scapegoating rises when a person or group picks on an innocent person or group (Medcof & Roth, 1979) that is held responsible for a phenomenon that brought negative consequences to the ones doing the scapegoat (Rothschild et al, 2012). MacLennan and Felsenfeld (1968) and Douglas (1995) write that scapegoating is created from negative emotions such as frustration or guilt from individuals or groups as they feel helpless and can not seem to find a way to resolve the issue they are faced with. These emotions need to be exteriorised, hence why putting the blame on another group and making them a scapegoat can be seen as a valid idea (Johnson, 1961).

The act of scapegoating rises from negative emotions such as guilt or frustration coming from individuals or groups involved in the issue which refuse to sacrifice themselves or take responsibility (Douglas, 1995). This type of action is called displacement and it can be seen as a defence mechanism to help the justification of our own feelings (Johnson, 1961; Drever, 1952). Douglas (1995) and Aveline and Dryden (1988) add that this projection is needed in order to erase the feelings and actions that make people uncomfortable and that are deemed inacceptable. That kind of projection can also be seen as a form of cognitive dissonance (Aronson, 1980) where negative feelings are repressed and given to another group which can be punished for having the same negative feelings in order for the scapegoaters to feel better about themselves. Scapegoating here is described as a need for individuals or groups that refuse to recognise negative traits about themselves to give those same traits to another group in order to not feel uncomfortable with themselves. These feelings of discomfort can also fissure one's identity and put the social representations of one's social group at risk. The need for self-preservation and protection of the self-esteem (Heider, 1958) allow individuals to resort to scapegoating if they feel attacked.

5 Methodology

In this chapter I detail the methods chosen to investigate the locals' perception of the SRKW and how they impact their practice. A phenomenological approach is used throughout the whole thesis as a tool to get a better understanding of the perceptions locals (e.g. scientists, whale watch operators, orca lovers) have on the SRKW and how they make sense of those perceptions as a community with a set identity. I will start with a discussion of the research design chosen before presenting the Salish Sea and its complex geographical and political location. The collection of data comes next, finishing with the methods used to analyse the data collected.

5.1 Research Design

The first aspect to take into account in a research design is the philosophical worldview, as it represents the basis of the thesis but also guides the researcher toward the best approach depending on the aim developed. Social constructivism has been chosen for this study, with Creswell and Creswell (2018) writing that "*individuals develop subjective meanings of their experiences – meanings directed toward certain objects or things*" (p.46). The combination of social constructivism and the social representations' framework allows for a better understanding of how an unfamiliar phenomenon or social object can be made sense of through people's perception of it. These subjective perceptions and understandings also help the social group to create a collective identity and thrive in the society. When applied to this paper, I am interested in the sense-making of the locals' perceptions and experiences about the endangered pods as well as the whale watch industry and its implication in their endangerment.

This study has a qualitative approach as it is used for "*exploring and understanding the meaning individuals or groups ascribe to a social or human problem*" (Creswell and Creswell, 2018, p.41). In other words, a qualitative approach allows to delve deeper into people's perception and creation of meanings on things that surround them, which is one of the aims of this thesis.

Adding to the social constructivism worldview and qualitative research described above, a phenomenological approach is needed in order to insist on the personal emotions and feelings of the interviewees towards the phenomenon investigated. Inglis (2012) describes phenomenology as "*the study of how a person or a group of people perceives particular things around them*" (p.79). In other words, phenomenology helps understanding the lived world of the interviewees and making sense of their perception on the situation they are faced with.

5.2   The Salish Sea

While no field observation was done on site, I feel it is important to understand the geographical and political location the SRKW live in.

The Salish Sea, named after Coast Salish indigenous tribe, is described as an inland sea of around 18000 square meters that expands from the north west part of Washington state in the United States to the southern part of British Colombia in Canada (Giles & Koski, 2012). The area concentrates an important diversity of species (Ayres et al, 2012) from invertebrates to fish, birds and mammals, while also being considered as one of the best places in the world to be involved in whale watching activities (Giles and Koski, 2012).

Giles and Koski (2012) write that the Salish Sea is the home of three different killer whales' ecotypes that do not have any contact with one another. One of the ecotypes mainly eat sharks and are called "offshore". The second ecotype, called the "transients" are also mammal-eating, feeding primarily on seals and porpoises. The last ecotype is comprised of fish-eating killer whales called the "residents" and are the most encountered on whale watching tours. The "residents" are divided in two subgroups, the northern residents and the southern residents. The northern residents live closer to Vancouver Island in British Colombia and are considered as threatened by the Canadian government[2]. This paper focuses on the SRKW which live in the international waters in the summer and fall seasons (Giles & Koski, 2012), although it has been pointed out by the interviewees that the endangered pods come later every year, shortening the availability to collect data and observe them. Critical habitats were determined in both the US and Canadian waters which included almost all of their waters.

5.3   Collection of empirical material

Following the phenomenological approach talked above, 14 in-depth semi-structured interviews were conducted in the space of 2 months in order to better understand their lived world and experiences. 6 of the informants are whale watch

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[2] Information found on the Canadian Government's website: https://species-registry.canada.ca/index-en.html#/consultations/1341

operators in the Salish Sea, while the other 8 come from different organizations: (1) The Whale Museum / Soundwatch, (2) Orca Relief Citizens' Alliance, (3) PNW Protectors (NGO), (4) Coextinction (documentary), (5) Pacific Whale Watch Association, (6) Orca Behavior Institute, (7) National Oceanic and Atmospheric Administration (NOAA) and (8) Salish Sea Orca Squad (NGO). It is important to note that many of the interviewees have different activities other than the ones above. For example, one is also a writer and wrote a book about the SRKW called "Lost Frequency" while others are also artists and create paintings of the SRKW. For one of the interviews, two informants were present and actively answering the questions together.

Interviewees were chosen after a thorough search on NGOs and individuals dedicating their time to the pods' protection. Almost all the informants were contacted on their social media page (e.g. Instagram, Facebook) or contacted by email after an interviewee recommended one person. In order to ensure their anonymity, quotes from different interviewees will be differentiated by the letter R and the number allocated to them (from R1 to R14). All the quotes marked R1 is for one interviewee and so on.

All interviews were conducted through Skype, Messenger or WhatsApp, some of them included cameras. The first interview was conducted as early as November, where the topic of the SRKW was chosen, but the focus of the thesis was still blurry. The informant gave the idea of a focus on the whale watch industry during the interview, which was later decided as the main focus of the thesis after further research, readings and several interviews. The themes for the interviews were as follow: (1) Perception of the SRKW, (2) Whale Watching in the Salish Sea, (3) (Eco)tourism in the Salish Sea regarding Whale Watching and (4) The Orca Task Force[3]. All the questions involved the interviewees' perception of the themes discussed. The interviews' length varied between 45 minutes and two hours depending on the number of people interviewed at the same time as well as the available time for each interviewee. All the interviews were recorded with the permission of the informants before using the website otter.ai to transcribe them into writing materials for the analysis. Although it did save a lot of time in general, transcriptions needed to be read several times to correct the mistakes of the website. The informants were contacted through direct messages on the social media platform cited earlier and were broadly explained the interests of the thesis and why they were specifically contacted. 3 informants asked to see the questions before booking time for the interview while the others were open to talk about anything

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[3] 3 The Orca Task Force (OTF) was created by Washington Governor's Jay Inslee. It gathered over 50 people from different institutions and industries (e.g. scientists, politicians, whale watch operators, fishing industry, commercial industry) in order to talk and find solutions or compromises on how to protect the SRKW from extinction. The last recommendations from the OTC were made on November 2019.

related to the SRKW. It was stated in the messages that I am not here to judge anyone but to learn about the importance of the pods in the Salish Sea through individual perception of them, as well as the perception of the impacts of whale watching on the SRKW. Because of the pods' endangerment and the complex political situation (e.g. Trudeau's government authorizing the construction of a pipeline which would go through the Salish Sea and backing out on the promise of ending the fish farms in B.C by 2025), some people contacted refused to be a part of this thesis in order to avoid any backlash.

Informal chats at the beginning and end of the interview took place for all fourteen interviews. Informants were given space and time to express their opinions as well as encouraged to give advice as to what aspect could be interesting to mention or do more research on.

Other than interviews, scientific articles which had a focus on the SRKW were read in order to get an objective view of the situation. The articles mainly focused on the underwater noise and its impacts on the SRKW, the lack of food or behavioural changes observed in the pods.

5.4   Analysis of empirical material

Once the readings and transcriptions were done, it was time to start on the analysis. A thematic coding and analysis was used in order to make sense of the data collected. Given (2008) describes the thematic analyses as "*a data reduction and analysis by which qualitative data are segmented, categorized, summarized, and reconstructed in a way that captures the important concepts within the data set*" (p.868).

The first step was to write down anticipated themes and compare them to the data collected, meaning adding or deleting some of the themes found. In order to do so, all the transcriptions of the interviews were read several times and the important parts highlighted before putting them on a different Word document under the themes found. The same was done for the articles read. Each quote was colour coded depending on who said it in order for me to differentiate the quotes from the informants, and to be able to find the quote back at any time if needed.

The themes were then either renamed, merged or separated the further the analysis went (Given, 2008) as the use of the quotes and methods of analysis made more sense. The final themes later discussed in the results are as follow: (1) Endangerment of the SRKW – past and present dangers, (2) Representations of emotional attachment to the SRKW, (3) J35 Tahlequah, the loss of a mother and J50 Scarlett, the slow disappearance, (4) Anthropomorphising of the SRKW, (5) Perception   and   evolution   of   practices   of   whale   watch   operators   and   (6)

Governmental regulations. The theoretical framework presented in the previous chapter also helped the formulation of the themes and the cohesiveness with the aim of the thesis.

5.5   Limitations of the data collected

Traveling to the island of San Juan where most informant are located in order to conduct the interviews and do some field work was the initial plan. However, it did not happen for financial limitations and the interviews had to be conducted through the phone or computer. The absence of face-to-face conversations and interviews limit the results. It was not possible to be attentive to the body language or the choice of place to do the interviews, which usually conveys a lot of information. Moezzi et al (2017) add that oral stories lose aspects such as performance, gestures and mimics from the interviewees. Although the transcriptions are as close as possible from what the interviewee said, some things did not make sense and I had to rephrase some sentences from my understanding of them.

Another limitation comes from the whale watch operators interviewed, which almost all come from the same whale watch company. Although they do not share the same opinion on everything, they still have a mutual understanding of what whale watching should be about. It was realized that most of them are working together during each interview and there was no time to find more whale watch operators by the time of the last interview. The lack of interviews from different companies might then limit the results of this thesis.

6 Results

Now that the theory and methodology have been explained, this part will deal with the results of the fourteen interviews conducted by separating them between the central core and the peripheral elements first brought by Albric (1993) in an approach of social representations.

The social representations are understood through the identity of a social group (Wagner, 1999). Regarding the social representations of the SRKW in this thesis, the social group is comprised of whale watch operators, scientists and orca lovers either living around the Salish Sea or who have had a job in relation to the SRKW (table 1). This group of diverse personalities and professionals forms a strong community, as they share the goal of protecting the SRKW. While their methods of achieving the goals differ in some places, they all share an interest in the SRKW's survival.

6.1 Core elements of the social representations of the SRKW

In order to have a cohesive and secure central system, the core elements need to create a collective memory as well as norms referring to it (Abric, 1993). For this collective memory and identity to be sustained in the long term, historical, cultural and ideological conditions need to be taken into account.

The first core element that stand up from the interviews is the qualification of the pods as endangered. All fourteen interviewees talked at one point about the endangerment of the SRKW, using expressions such as "the endangered southern residents", implying that this endangerment is what described the SRKW and make them unique in their eyes. All the whale watch operators specify that they always evoke the SRKW's endangerment during the tours as a kind of education. One of the reasons is because other killer whale pods live in the Salish Sea and they need to be able to explain the tourists the differences between the pods. A second reason is that they are hoping that tourists will either relate or feel something for the SRKW when they learn about their situation, in order to change their behaviour on the long-

term. It was also stated by several interviewees that they felt the "need" to help the SRKW because of their endangerment, implying that the pods could not save themselves and needed human help.

The second core element that helps create the social representation of the SRKW is the emotional attachment the interviewees have to the killer whales' pods. All 14 informants evoke their love for the SRKW through the feelings they have when seeing them as well as their knowledge on the pod (e.g. can name each individual by looking at their dorsal fin).

6.1.1 Their endangerment – past and present dangers

The SRKW have been considered endangered since 2003 under Canada's Species at Risk Act and since 2005 under the US Endangered Species Act (Shields et al, 2018). However, even if it was only in the early 2000s that the SRKW had the official status of "endangered", they were already targeted in the 1970s when they were captured in order to end in marine parks. Some of the whale watch operators drew a contrast between how they were viewed five decades ago compared to now, showing the change in mentalities:

"*Well, if you go back in history, it was not that long ago that the killer whales were shot by local fishermen and, and captured and taken away to, to aquatic parks. And they were they had very little value at all. They are not they were not held in this great esteem that the general public close them in today.*" (R5)

"*You know, there's the same people in East Point on such an island that yell at us from shore saying you're too close, you're too close to the whales, like, five decades ago, those same people in those houses would have been standing on the beach with shotguns. So you know, shooting the whales. So it's incredible, like how much it's evolved our understanding and appreciation of the whales.*" (R10)

However, these decades of capture and killing took a toll on the numbers of individuals in all three pods. One local, also one of the interviewees, wrote a fiction book mixed with facts about the Salish Sea and the SRKW. One thing he writes about the times of capture in relation to the SRKW speaks for itself:

"*If you were to put back the orcas that have been captured over the years, and the ones that were killed during those captures, you'd be up around 150 or more.*" (*R5*)

Live capture was stopped in the 1970s when people started to worry about the wellbeing of killer whales in concrete tanks. This attachment increased even more when the movie Free Willy came out in 1993:

"And so then when Free Willy the movie came out, you know, they needed a somewhat local pod of whales to film for B roll and stuff. And so they chose the southern residents. And you know, I think that brought a lot of attention to the southern residents." (R12)

From this interest in the SRKW came a need for a bigger tourism industry, with a focus on whale-watching activities and anything that would allow the tourists to see killer whales in the wild. For one local that has been living in the Salish Sea for decades, the changes to the coast revealed more negative than positive aspects of the existence of the whale watch industry:

"Well, there were never private boats after the orcas until there was a whale watching industry because how the private boats know there are whales is by watching the whale watching boats"(R1)

Even today, the waters in which the SRKW live are extremely busy as a result of whale watching, recreational boats, military, commercial freights, fishing boats and more. Most of the interviewees agree on the danger of having so many boats around the SRKW:

"I do think that there probably is too many boats out there. And I don't know what the answer to that is. Like how we can fix that?" (R10)

Another issue occurs when some of the boats on the water do not respect the area they are in, or the animals around them:

"I've seen a lot of private boaters doing the wrong thing, right. So pictures of private boaters literally running over killer whales essentially"(R9)

"It's the private recreational boaters that are doing most of the violations around the whales. Probably a lack of education, not knowing what the rules are, sometimes it's people who really don't care maybe know that there are rules but they just don't want to follow them"

"We see this fishing boat, they're (the SRKW) like on the right side of the shore, they're swimming north, going towards Monkey Island, and then there's this boat going south. And it's so intense and we're like going towards the boat, you know, screaming waving at him trying to radio over being like, there's orcas, you're gonna run them over" (R14)

The expansion of tourism in the last decades, although an important platform to communicate and educate about the endangerment of the SRKW, also brings more dangers to the pods through busy and unsafe waters. However, the fish-eating SRKW keep coming back every year, as it is where they find their main source of food, the Chinook salmon. Unfortunately, this species is also close to extinction because of the presence of dams that prevent the salmon from spawning and reaching the Fraser River (located in the Salish Sea) where the SRKW usually feed. This raises the main issue of the SRKW's endangerment according to most interviewees: the lack of food.

"Everybody talks about it, we can't emphasize it enough. The reason why their population is declining, it's because they don't have enough food" (R9)

"The whales have been impacted by lack of food. Yeah, that's just as simple as that. And that's why the whales have finally moved on" (R2)

"the scientists when we spoke to them at length, they all have exactly the same information that they're sharing, […] It's no longer about the pollution because the biggs killer whales are in the same water. It's the same pollution, the same noise and they're thriving, and it's just comes down to they don't have enough food." (R4)

Stated in the quote above, another sub-species of killer whales called the Biggs, which are mammal-eating, thrive in the same waters the SRKW are starving in, and the reason for their proliferation is the presence of food (e.g. pinnipeds). One interviewee states that although prey seems to be the most urgent of the threats to tackle, other actors put the blame on different aspects:

"it's challenging because each group has a different perspective. Operators have a different perspective, and they often will point to prey being the main issue. But then we talk with fishermen who say, Oh, well, you know, there's lots of fish out there. It must be something else. It's the boats, or, you know, the contaminants that are causing the problems." (R8)

Another interviewee puts the blame on tourism and whale watching rather than the lack of food itself, thinking that the noise and presence of tourist boats change the behaviours of the SRKW and contribute to their starvation:

"They are harassed, I mean, really what tourists are seeing these days they're watching a species go extinct, and they're actually contributing to it" (R1)

In this section, although the interviewees do not share the same perceptions of why the SRKW are endangered, they all agree on their conditions, and on the fact that actions need to be taken.

6.1.2 Representations of emotional attachment to the SRKW

The second central core element to the social representations of the SRKW is closely linked to their endangerment. All of the interviewees are attached to these whales one way or another. This attachment comes from the historical conditions as well as their knowledge and the interactions they have with these pods.

It is important to note that the SRKW are the most known pods in the world. This is due to observations that have been conducted since the 1970s, and their declining numbers makes it easier to distinguish one member from another. This knowledge seems to play a big part in the social representations of the SRKW, as many interviewees talked about it:

"And we know we know them on an individual level, we know their personalities and their life histories. And so it definitely adds to how connected we feel to them and how important they are to us and how important it is to work on their behalf" *(R13)*

Other than the fact that they are the most known pods, the interviewees' attachment to the SRKW comes through in the emotions they feel when seeing the whales. Most of the interviewees used the terms "excited", "life-changing", "emotional", "joy", "happiness" to describe their experience, and all went in depth about their first encounter with the SRKW, as if to make me feel what they felt that day. This attachment sometimes leads to personal sacrifices from interviewees, who made the decision to dedicate their lives to the conservation of the SRKW rather than have a stable situation:

"if I don't do this for them and don't get involved and work on their behalf. What is my passion for them all about?" (R13)

"I might have to work odd jobs here and there to get by but I dedicate more of my time to sharing them with people and hopefully creating advocates and, and promoting their recovery and protection" (R12)

"It was it was like a light switch like I'd been one way and then it was every moment I want to devote to these whales." (R4)

However strong and unbreakable their attachment to the SRKW is, most interviewees are aware of it being one-way:

"*when you first see them you know that emotional connection is definitely a one way street. Yeah. You feel so strongly for these whales, but I can almost assure you that they don't feel as passionate about you and I is we do about that […] we're so*

kind of hopelessly pathetically obsessed with them and they could just care less. 'Oh, they look at us like look at those buffoons here'" (R10)

"I have formed a bond, a personal bond with them. And, and I can't say all that it's reciprocal" (R2)

To conclude for the central core elements of the social representations of the SRKW by the community, I see that their endangerment as much as the attachment felt for them builds the identity of the community. Each individual in the social group feels strongly about the three pods that they usually see every summer, which is why the endangerment of the SRKW is such an important part of their perception. They love these orcas and most are willing to go to great lengths for their protection, even if it means making personal sacrifices or adapting their practice to have a better conduct around the animals. It is shown that the SRKW's endangerment is also one of the reasons for the emotional attachment of the informants. They realize that the pods' numbers are decreasing and that they might not get to save them in time. One quote from a whale watch operator seems particularly poignant as an expression of the community's love and devotion for these pods:

"So, we love we universally love these animals in a way that the general public cannot understand" (R2)

6.2 Peripheral elements of social representations of the SRKW

This section will deal with the elements that complement the central core system of social representations. Much more flexible, the peripheral elements incorporate members of the community's experiences of the social representation (Abric, 1993). The peripheral elements tackled in this section aim to protect the community's central core and identity through making sense of them in ways that prevent doubts from forming in people's minds. In the case of this thesis, the elements discussed below are consolidating the core elements previously talked about, endangerment and emotional attachment. The sharing of the social representations of the SRKW strengthen the identity of the community in the Salish Sea.

For the results to be clear, I use two levels exist to differentiate the peripheral elements. The first level focuses solely on the peripheral representations that directly relate to the SRKW, while the second level reflects on more indirect representations such as governmental regulations or changes and practice.

6.2.1 First level of peripheral representations

All fourteen interviewees anthropomorphize the SRKW when talking about a positive or negative memory they have of some encounters with the pods. It seems that they do not do it voluntarily, implying a deeper attachment to the pods than thought in the previous chapter. Adding to the anthropomorphising of the SRKW, more than half of the informants referred to the stories of J35 Tahlequah and J50 Scarlett to give examples of media and governmental attention as well as to insist on the endangerment of the pods.

Anthropomorphising of the SRKW

One peripheral element that directly concerns the SRKW is the anthropomorphising of the individuals in the pods. This personification can be found in many human-wildlife interactions where humans create a connection to the animals they are talking about, showing a form of affection or respect (Mitchell et al, 1997). In the case of the SRKW, almost all interviewees show this notion of personification in their interviews through their use of diverse language to convey their attachment to the pods. First, the pronouns "he/she", "him/her" or even "you" are often used when talking about one of the individuals:

"She kinda like lifted her head up and kind of sat there with her head out of the water and made eye contact with me." (R12)

"Whenever we were following J pod, I was always trying to seek out and identify Rhapsody because we get to see him jump more"(R2)

"I had this very, extremely powerful desire. I want to help you like I want to like spend my life helping you." (R4)

Talking to them directly or using feminine and masculine pronouns show an attachment and respect for the whales on the interviewees' part, as well as a perception of equality between them and the SRKW. One could almost say that they value the pods more than humans in some ways, as some interviewees have made personal sacrifices to dedicate their time and money to the SRKW. They even take the role of the pods' "lawyers" by communicating on the issues they see as the most important to tourists and openly blaming organizations that are to blame in their opinions.

Another example of the anthropomorphization of the SRKW arises when interviewees "make the killer whales speak", meaning they make them sound more human in the listener's mind:

"You know, I've had them multiple times come by the boats just to kind of say 'What's up?'" (R9)

"They weren't cruel or menacing, or scary. They were just like, 'Oh, hi.'" (R4)

Translating the killer whales' behaviour in human language is an even bigger example of the equality aspect of the relationship the interviewees have with the pods. Even though it has been made clear earlier that the bond is understood as one-way, the strength of this bond from the human side is clearly showing through this personification of the SRKW.

A third aspect would be the humanized behaviour of the whales, when interviewees relate the SRKW behaviour to their own:

"they'll cross the imaginary boundary, if you will, between Canada and the United States. Of course, we'd love to make jokes about how the orcas you know, they don't need to check their passports or anything because they don't care about political boundaries." (R5)

"when Scarlett was very, very sick, we saw her at lime kilm on the last time she was ever seen, and she did these little jokes" (R4)

"But there's a lot of stories of individuals that I resonate with. Like, for example, there was a whale that was like, he got disconnected from his family and ended up trying to connect with people [...] in my own personal life, you know, I've had experiences where I've been disconnected with my family" (R3)

This personification has been proven to show the love of the interviewees for the SRKW in diverse ways, but it also displays their perception of the relatability between both species, whether it is with their social structure or the way they interact with each other.

J35 Tahlequah, the loss of a mother and J50 Scarlett, the slow disappearance

While all the interviewees told many stories that stuck with them through the years they have been working around the SRKW, there is one situation in particular that had a big impact on the international attention on the SRKW, showed their endangerment and made the interviewees want to fight even harder for the protection.
One killer whale from J pod (one of the three SRKW pods), called J35 Tahlequah, made international headlines during the summer of 2018 for carrying her dead calf body for over two weeks. This image of loss reverberated around the world as people could relate to the "grief" they thought she was showing:

"J 35 showed, you know that they're emotional, that they're intelligent, that they grieve. You know, who is a mom can look at that and not say no, that was not grief, you know?" (R12)

This display showed how bad the SRKW were doing, and people started to wonder why the calf died. While there was a lot of speculation, the answer heard the most is that J35 Tahlequah lost her calf as a result of a lack of food. These conclusions came from previous scientific articles that raised warnings about the physical conditions of the SRKW. Seeing the feedback coming from all over the world, a whale watch operator commented on how important this loss is for the communicational aspect:

"I think J35 did more for her cause and for the southern residents than I will ever hope to be able to do, that any of us have done in the past 20-25 years, to raise awareness that those 17 days that she carried her baby around, brought more to her and her cause, her kin." (R12)

J35 Tahlequah's loss resulted in more tourists coming to the Salish Sea, and the interviewee working for the Whale Museum said that sometimes, 100 percent of the people coming to the museum knew about the SRKW, while the average was 30 percent before the summer of 2018.
At the same time as J35 Tahlequah lost her calf, another individual from the same pod, J50 Scarlett, was worrying whale watch operators and scientists alike because of its skinny figure.
While interviewees saw tourism increased because of J35 Tahlequah's story, whale watch operators have mixed feelings about going out on the water, especially with J50 Scarlett's situation worsening around the same time. On one hand, they love them and want to respect their privacy in these possibly difficult times, while on the other they want to convey their love for them to the tourists and educate them about the current endangerment of the species.

"They (locals) didn't want to see Tahlequah, they didn't want to see J50 not looking well. And they were like, they were like, I love the southern residents, but I don't want to see them because it makes me too sad. And I had the complete opposite reaction like the moments that I saw them were so filled with joy and excitement that that was my fuel to kind of keep going and deal with all the depressing things going on" (R11)

"At least my myself and my close friends and the association made that decision to not watch J35. Out of respect of her." (R10)

Regarding J50 Scarlett's weight loss, whale watch operators and scientists were unsure if it will survive, and even if it did, for how long. After the spotlight was put on the SRKW with J35 Tahlequah's loss, the survival of J50 Scarlett was of the utmost importance for the government and other organizations that were pressured

by the media and the public to act. As such, a whale watch operator tried to explain the situation in the area through one of her personal experiences where she was on the water when all three pods were around to look for J50 Scarlett, to see if it was still alive. The interviewee was not alone on the water around the SRKW. With her was Soundwatch, Straight Watch (the Canadian equivalent of Soundwatch) but also a helicopter from NOAA (National Oceanic and Atmospheric Administration) which is part of the US Department of Commerce, as well as two DFO planes from the US Department of Fisheries and Oceans. All this federal presence was just to show the media and public that they were doing something to save them:

"*I very much believe in my soul that all of that only happened, all of that effort, it only happened because of the intense media attention around J35 and her deceased calf, yeah.*" (R10)

The interviewee left the scene without identifying or observing the absence of J50, talking about a "terrible scene" and saying "*I felt so bad for the whales*" for the disturbances. Later that day, she went back on the water when the SRKW were around, only to realize that J50 Scarlett was not with the other pod members, meaning she probably passed away since the last time they observed them.

These two stories, told by several interviewees, were used as examples to point out how urgent the situation is for the SRKW, and how the government agencies act only when under pressure from public outcry and media attention. The reactions from the whale watch operators and scientists, whether they decide to avoid seeing the pods or see them having fun to forget about what happened, show a strong attachment towards the SRKW.

6.2.2 Second level of peripheral representations

This section focuses on the peripheral elements of the social representation of the SRKW, meaning elements that indirectly deal with the pods and strengthen the core elements discussed above. The two distinct actions in order to protect the SRKW from extinction, one being the sacrifices and voluntary changes from the whale watch industry in the Salish Sea while the other deals more with governmental action – or inaction- on the matter are of interest.

Perception and evolution of practices of whale watch operators
Both core elements of the representations of the SRKW, namely their endangerment and the emotional attachment felt from the whale watch operators and scientists, play an important role in this particular section, regrouping perceptions of whale watch operators from different points of view, and changes in practices in the whale

watch industry in the Salish Sea in order to protect the SRKW. One interviewee points out that if the SRKW are not doing well, it is not good for the whale watching business but also for the whale watch operators' morale, which is why guidelines are needed to preserve the SRKW from further dangers.

- **Perception of the community on whale watch practices**

Whale watching has been listed as one of the reasons the population of the SRKW has been declining in recent decades by one of the interviewees, because of the noise of the boats as well as their presence on the water in general. It also evokes ideas of the activity that are outdated and wrong for one interviewee:

"You know, that misconception that we're just trying to provide this thrill to people and get them really close and, and chase the whales." (R13)

Whale watch operators see their profession as bringing several positive aspects for the SRKW's survival, whether it is from educating the tourists while on tours to knowledge of the pods and their behaviour:

"All of us up there in the whale watch industry are doing our best to educate people about them, show what they're going through and try to get people to care about them." (R9)

"My goal is if I'm out there, I don't want them to affect their behaviour at all. And I don't think, you know, for the most part I do. But, I'm I not, you know, not to like brag or say anything that would sell myself but I feel like I've been out there long enough with them that I can tell when their behaviour is changing, and I can act accordingly." (R12)

Scientists also working with the SRKW agree on the fact that most whale watch operators care about the pods and about educating the tourists. However, one whale watch operator is more critical about her position than others. While they are all aware of the dangers that would come from a "bad" whale watching operation and how careful they all need to be while on the water, this interviewee wonders if what they are doing is any different from other purely leisure activities:

"I have this like internal conflict of like, is what I'm doing, like, really that valuable? Or is it just we just offering like a Disneyland kind of experience?" (R10)

Dedicating so much time for the SRKW through reaching out to a public that might not be interested in the education but rather the "wow factor" of seeing a killer whale in the wild, and tourists that are looking for entertainment like they would be

at an amusement park, can crack the hope for any improvement in the SRKW's situation. The interviewee emphasises the struggle she feels when she adds that the whale watching tours offer the possibility of creating a connection with the marine animals, just like Seaworld promotes. On the scientists' side, one of them uses the word "naïve" to describe the whale watch operators that believe their activity do not have any impact on the SRKW.

- **Changes in whale watching practices in the Salish Sea**

Most of the interviewees admit that the practice implemented in the late 90s and early 2000s regarding whale watching was not in harmony with the already declining population of SRKW. Some recall boats doing the 'leapfrogging manoeuvre,' which means driving straight to the pods and stopping right in front of them so tourists could see them go under the boat.

Since then improvements have been implemented, many coming directly from the whale watch companies which decided to take precautions through self-regulation on the water to protect the SRKW. Interviewees – whale watch operators and scientists alike – explain that all the companies that are part of the Pacific Whale Watch Association are working together on the water by communicating with each other to ensure the wellbeing of the pods. For example the make sure that there are not too many whale watching boats around one group of whales. No competition on the water is needed between the companies as the whale watch boats present around the SRKW would work in teams and switch after a few minutes so all the boats and their tourists have the possibility to observe the pods:

"I can tell you this past season with the Southern residents, I was never on scene with them where we had more than five boats. So we pretty much avoided them for the most part or got short looks, you know, 10 to 15 minutes with Southern residents and then went off to do other things." (R12)

Another self-regulating aspect is revealed when one whale watching boat is misbehaving on the water around the SRKW. The whale watch operators hold each other accountable for their actions and get called out by other operators, who then refuse to give information on where the whales are for the next tours. It may seem like a small consequence for putting killer whales in danger, but interviewees insist that they all communicate with one another to know where the whales are, which makes this calling out that much more dangerous for the company at fault.

The notion of ecotourism has also been brought up during the interviews resulting in mixed feelings from the interviewees on whether the tourism in the Salish Sea can be considered as "eco" or not:

"While it absolutely is easy for anybody to say, yes, we're ecotourism. It's, it's al what what is backing that up and for us was backing that up, or the precautionary steps that we've been taking and evolving over 20 years" (R13)

"I think improvements always could be made. Yeah. But I would say it is eco tourism because they are educating people about these animals, they are taking them out to see them they are educating people about these animals, is they're telling them about the issues affecting them and ways to help them then that that is the ecosystem part or eco environmental part of that aspect. And I know a lot of the companies set aside money to in funds to help the population as well." (R7)

"I think they're trying to be eco friendly. And they're getting towards eco tourism. I don't think they're there right now. But I mean, in general, it's like, yeah, in general way of watching is a it is ecotourism. It's going out and looking at nature for money. So by definition it is but I don't think that they're at that super high level of being that eco friendly." (R6)

"I would say it's completely deceptive (ecotourism in the Salish sea). [...] But anybody can use ecotourism. Yeah, I mean, that's a and so gets used all the time here and and it's a travesty. Okay. Yeah, it's a travesty that as far as I'm concerned, okay for our county be to be promoting whale watching as an eco tourist activity is wrong even with the regulations put in place" (R1)

While most of them agree the form of tourism implemented is ecotourism, they insist that it has to be done responsibly, and that there is always more that can be done. However, the change in practice and the general definition of the activity of the whale watch industry is enough for most of the interviewees to use the word ecotourism in the Salish Sea. Informants reluctant to see the tourism as "eco" around the SRKW show the different perceptions people can have on the general activity that is whale watching, showing signs of conflicts. It is also shown that even when they share the same definition of it being an ecotourism activity, the way it is implemented can still raise issues on what is expected from activities with such label.

Finally, self-regulation and guidelines are created by the Pacific Whale Watch Association itself through the science done in the Salish Sea that evaluates how far a boat can be from the SRKW for it not to disturb them, or how fast a boat can go at what distances and when to reduce to speed and so on.

All of these steps to protect the SRKW have been made voluntarily by almost all the whale watch companies in the Salish Sea, sacrificing their closeness to the animals and probably also the satisfaction of tourists in order to respect the pods' activity, whether it is resting, foraging, socializing or something else.

Governmental regulations

Adding to voluntary guidelines from the whale watch operators, official regulation have been put into place by the US government under the Orca Task Force, which reunites a group of over 50 people involved in one way or another with the SRKW (e.g. scientists, whale watch representants, companies) to find solutions for the recovery of their population. While the task force unites different professionals in several fields, the marine scientists that know the SRKW situation and the area in general do not have a lot of impact on the regulations:

"So the regulations aren't always set by, you know, the best science available or, you know, the scientific recommendation, it kind of gets maybe watered down or dwindled down through the political process." (R6)

The task force has pushed strict regulations on the whale watch companies, complicating their activity:

"The regulations around the southern resident pods are stricter, more stringent, more restrictive than any whale watching that I know of anywhere in the world." (R2)

These regulations bring critiques from the whale watch industry, as it feels alienated. It is targeted as one of the only dangers in the SRKW's population decline, exempting for example fish farms or the commercial fishing industry from any regulation. Many whale watch operators declare in their interview that their industry is viewed as an easy target, because boats are seen on the water while the lack of salmon is not obvious. They also state that their industry is smaller and not as financially interesting as others such as salmon farming and commercial fishing, lessening their power and voice during task force meetings. The regulation the interviewees have an issue with focuses on the distance boats can approach the SRKW and other wildlife. The first concern revolves around the decision to keep the boats around 300 meters away from the whales, which is deemed too far for most whale watch operators and scientists interviewed, all agreeing that 200 meters is enough for the SRKW to not have noise disturbance from the boats' propellers. While the 300 meters regulation is in place for the SRKW, the regulation is stricter than the corresponding rules for other killer whale subspecies that reside or pass through the Salish Sea. It is a concern for scientists and whale watch operators alike,

as the recreational boater on the water who is not acquainted with or knowledgeable on the SRKW cannot see the difference between the different pods.

An even bigger issue with this kind of regulation is the difference in the allowed distance to the SRKW between the US and Canadian waters:

"I think it's, it's kind of silly that we have different regulations across the border." (R13)

The distances differing from one country to another and not having clear demarcations on where the US waters start and end add more confusion for the recreational boaters that are already supposed to recognize which pods of whales they are observing:

"I will say, though, it is so unfortunate that the rules are different in the US and Canada, and that the rules keep changing. And then the fact now that it's also different for residents and for transients, like the, the average, you know, member of the public, I don't know how we can expect them to be informed on how they're supposed to behave" (R11)

The consequences of the difference in distances and confusion for the recreational boaters can lead to an increase in violations on their part, putting the SRKW and other wildlife in danger.

The results section has brought us a better understanding of locals' perception of the SRKW in different situations (e.g. guidelines, regulations, behaviours) and how they make sense of the pods' endangerment in their own practices. The results have been divided the results into core and peripheral elements in order to relate them to the theoretical framework chosen for this thesis, social representations. While the core elements of the social representations of the SRKW are represented by the pods' endangerment and the interviewees' attachment to them, several peripheral elements come to strengthen these core elements and the social representation of the SRKW in general, consolidating the identity of the social group interviewed composed of whale watch operators, scientists and orca lovers.

7 Discussion

This chapter tackles the empirical findings in relation to the theoretical framework chosen for this thesis. The analysis of a social representations shows how the social object is perceived by the social group, and what actions are taken in order to keep the identity of the group untouched. For this thesis, I decided to use Abric's method (1993) of dividing the social representation of the pods into two systems, central core and peripheral elements. The first one represents the elements that maintain the identity of the social group while the latter the elements that strengthen the central core elements to the identity of the social group.

The central core elements discussed in the previous chapter, namely the SRKW's endangerment and the interviewees' emotional attachment to the pods show that the historical and cultural aspects around the marine mammals play a big role in how they are perceived and how the identity of the community has been created. These two elements help understanding the informants' social representation of the SRKW and their perception of the pods as being loved and protected by the community through actions and sacrifices for their conservation. If the central core elements seem to clearly show the social representation made of the SRKW by the social group, it is less apparent for the peripheral elements. Their meaning is just as important as the core elements as they show how the social group is understanding and reacting to a new phenomenon that might fissure its identity. In the case of the social representation of the SRKW, the peripheral elements explain how the attachment and the endangerment aspects of the pods are shown by the informants, and what is done in order for a social group to familiarize itself with this phenomenon.

Specific mechanisms, namely stories, anthropomorphization, psychological ownership and scapegoating are discussed below. They are used by the informants in order to make sense of the emotional attachment towards the SRKW as well as their endangerment and the decisions and actions taken to protect them.

   All peripheral elements are intricately related to one another and each bring a new layer of understanding of not only the central core elements of the social representation of the SRKW, but also a more general idea of the situation in the

Salish Sea regarding the tourism implemented. Stories about J35 Tahlequah and J50 Scarlett show not only the personification of the SRKW with the pronouns used or comparison to humans (e.g. comparing J35 Tahlequah to a woman losing her baby) but also the perception the whale watch operators have of the SRKW and of their activity in general (e.g. refusing to use the boat to watch J35 Tahlequah or J50 Scarlett to not disturb them). The voluntary guidelines from the whale watching companies and the regulations from the government are also related to the other parts, as they exist to protect the SRKW from dangers such as tourism activities (e.g. whale watching, recreational boats).

In order to make sense of all this, the discussion will use the different sections of the results, with a focus on a specific mechanism for each, namely the use of stories, anthropomorphization, psychological ownership and scapegoating.

7.1   The personification of the pods as a tool to emotionally relate to them

In this part the focus is put on how anthropomorphization plays a role in the emotional connection one has with an animal, object or else, and how it shapes our perception of it.

The notion of anthropomorphising, or personification of an animal is broadly used for animals considered as "pets" such as dogs (Horowitz & Bekoff, 2007; Airenti, 2018), but much rarely for wild animals that do not depend on humans as much as pets do. However, the interviewees show clear sign of personification of the SRKW through the use of feminine and masculine pronouns and names given to the orcas as well as the use of emotions (e.g. grief) and actions (e.g. voluntarily looking in one of the interviewees' eyes) which relate more to the human demeanour than marine wildlife's.

Théodule Ribot in L'évolution des idées générales (1897) writes that "*In consequence of a well-known though inexplicable instinctive tendency, man attributes purposes, will and causality similar to his own to all that acts and reacts around him*" (in Guthrie, 1997, p.50). This quote can be related to the anthropomorphising of the SRKW by the community of scientists and whale watch operators when they say that the killer whales are disturbed by the underwater noise of boats when they are 200m from the marine animals. This "speaking on behalf" of the SRKW comes from the scientific articles and data collected showing the noise level of the boats and the physical reactions of the SRKW when boats are around. The reactions and behaviours of the SRKW are interpreted by the interviewees in the way they make sense of it themselves rather than the whales. One Interviewee gives an example of when a boat is shutting down on the water

and killer whales are coming close to the boats, humans might think that they come because they are curious and want to play, when in reality there might just be a fish right under the boat and the animal is coming closer to the boat to feed rather than showing any sign of interest in the boat itself. There is no way of knowing what the marine mammal's thought is when doing something, hence why people need to make sense of it in a way they would understand. If they were to come closer to an animal or thing that they do not know, it probably is because they are curious, and they interpret the behaviour of animals the way they would do it themselves. Another example comes from several interviewees that assume that J35 Tahlequah was grieving when she lost her calf, interpreting carrying her dead calf for several weeks as a sign of mourning in order to make sense of this action that would not be understood on its own. This interpretation of wildlife animals' behaviours into humans' behaviours is explained by the fact that human actions, thoughts, feelings and such are the only thing that they know (Airenti, 2018), hence why they involuntarily (or voluntarily) reproduce those actions, thoughts and else when confronted to the nonhuman animal world.

Personification of an animal helps people make sense of their behaviour as they are able to relate to them in some ways and feel connected to it. This relationship built with the animals allow humans to display emotions onto them, like a "pet" and its owner. When dealing with the notion of anthropomorphization, people usually think of animals they physically "own" such as pets, but it is shown in the interviews that it can also be used with wild animals. Affection plays a bigger role than ownership itself when talking about anthropomorphization (Airenti, 2018), and it is shown by the use of pronouns "he/she" in the interviews when speaking about members of the SRKW, as well as naming each individual with humanized names such as "Scarlett", "Blueberry" or "Mike". These decisions imply that the interviewees see the SRKW as their equals, almost as "human", showing their affection for the whales in diverse ways. However, one point that destructs the anthropomorphization is the use of letters and numbers one after the other (e.g. J35) in order to recognize the pod the individual is from as well as a personalized number. This can be seen as a "barcode" that dehumanizes the SRKW, breaking the idea that they are seen as complete equal as humans.

This affection is also shown through the status the animals are in. In the case of the SRKW, they are endangered, and as Kellert (1996) writes, "*endangered or threatened species whose members are big-eyed, fuzzy, or large elicit more attention and concern than small-eyed, slimy or tiny animals*". The interviewees have an easier time to relate to the SRKW because of their endangered status and their extensive knowledge of the three pods.

The social representation of the SRKW by the interviewees analysed through the lens of anthropomorphization shows the importance of the three pods into the

interviewees' lives, seeing them as equals through the processes of naming and speaking on behalf of the whales in several occasions. This process also shows the need to relate to the animals by making sense of their behaviours and actions as if they were in the human's world, sometimes going as far as giving emotions to individuals such as happiness or grief.

7.2   Strengthening of the social representations through stories

After an interest in how the anthropomorphization of an animal shows the attachment one has for it, this section deals with the use of stories in all fourteen interviews and how they strengthen both central core elements of the social representation of the SRKW.

The first elements that directly refer to the SRKW come from the two stories of J35 Tahlequah and J50 Scarlett. As explained in the results chapter, J35 lost her calf in the summer of 2018 and carried it with her for over two weeks. A lot is known on how long the calf lived and how many days she carried it with her, implying the presence of humans around her during those times, presence that was defined as "harassment" by one of the interviewees. Regarding J50 Scarlett, she was seen struggling to keep up with the pod, looking skinnier each time she was seen.
Although stories or narratives about J35 Tahlequah and J50 Scarlett are the most commons in all the interviews, other stories about other members of the SRKW are also mentioned. All stories had a reason to be told and was giving the researcher a message such as the SRKW are clever; too many boats on the water; whale watching is not so pejorative to the SRKW. This led to the reflection that the act of storytelling was used, either voluntarily or not, to express the interviewee's position on a matter but also to enhance the emotional attachment aspect to the SRKW that has been talked about.

Goody defines a narrative as a "*spoken text, giving an account of an event/action or series of events/actions, chronologically connected*" (in Czarniawska, 2004 p.2) which develops group identities while stories are seen as a type of narratives (Gabriel, 2018), and I will follow that idea throughout this section. Stories have a start, a middle and an ending and have multiple uses which include the gathering of information as well communicating with the public among other things (Moezzi et al, 2017). Arrangement of a story depends on several aspects such as audience or location, and involves protagonists, whether humans or else, that are confronted to something unusual and negative involving antagonists (Czarniawska, 2004). It is known that stories are not specifically trustworthy, but Gabriel (2018) insists that they express the signification (e.g. emotions, feelings) accorded by the tellers to the events they are speaking of. Regarding the stories told by the interviewees around

the SRKW, they all involve themselves as the protagonists and include antagonists, whether they are individuals or institutions (e.g. an interviewee talks about the time she "protected" the SRKW against recreational boats, another against ferries). All stories are told from the perspective of the individual who lived the story, meaning that it is subjective and the story can differ from who tells it (Moezzi et al, 2017). For example, one interviewee talks about the time she went whale watching and was shocked at the focus on seeing the orcas rather than enjoying the landscape and getting more knowledge on the area. If I were to ask another person on the boat, whether a tourist or the naturalist, their perception of the event might differ from the interviewee. Another example pointing the different perception each person has on an event depending on their practice arises with boats around the SRKW. All the whale watch operators insist that they respect the distances and stay even further than the guidelines indicate, while two interviewees admit that when watching from land, they perceive the boats as much closer than the 300 meters regulations. One specifies that it looks surprising at first but she is sure that the boats follow the regulations while another insists that the boats are in the wrong. She does not seem to think about the different perception one has from land and on the water. This certainty of the boats' wrongdoings enhances her already negative feelings about the whale watch industry and the danger it brings to the SRKW. When asked about this specific issue, all whale watch operators interviewed agree that it can be confusing and that it is one of the reasons so many locals watching cetaceans from land have issues with them.

Stories define the events protagonists are faced with through the use or adjectives or verbs in specific orders (Moezzi et al, 2017) and are used in general as excuses or ways to validate our thoughts or actions (Bruner in Moezzi et al, 2017, pp.5). They also help the listener or reader making sense of the story, to have a better understanding of the perception interviewees have of one situation, and why they see it that way. One interviewee, through storytelling, talks about some of the times she had to stop boats from running over members of the pods. She gave a lot of details as to what happened, how it happened and the emotions she felt during this experience, giving the listeners the opportunity to envision the scenario as if they were present.

Stories are communicated to new members of the community in order to gain more knowledge on the history and experiences of said community (Czarniawska, 2004) but also help the creation to what Wenger (1998) called "community of practice", meaning individuals sharing skills and perception of their practice and identity as part of a social group. Many of the whale watch operators, when telling narratives of stories, share similar experiences and perception of what they see on the water (e.g. recreational boats as the danger; governmental organizations as useless) which create a type of knowledge for the community to learn and apply to their daily lives. However, Gabriel (2015) writes that "*knowledge becomes inscribes in practices*" meaning that scientific knowledge can be put aside, giving space to what is called narrative knowledge, which revolves around stories and personal experiences. As such, what is called "knowledge" in a community might come for the historical aspects and experiences lived from the individuals rather than official data and

research, unless proven otherwise. One interview in particular was filled with stories and involved two interviewees at the same time. When one was telling a personal experience he or she has lived in relation to the SRKW, the other often adds elements to the story or remembers another story that is then shared. It keeps going back and forth during the whole interview, showing the co-creation of a story of members of a community as they both use their own perception and knowledge of a situation to recollect and assemble their memories into one, which then becomes part of the community.

This section shows how stories have an importance in making sense and strengthening social representations of an object or phenomenon in a social group.

7.3 The community's feeling of possession towards the SRKW

The notion of psychological ownership in this section makes sense of the attachment of the interviewees about the SRKW and how this emotional connection can be seen as some kind of possessiveness from the interviewees' part.

The results section shows that the perception of whale watch operators on the SRKW and their practice are closely linked together. If the SRKW are not doing well, neither are their business or their morale. They perceive their work on whale watching boats as one way of saving the SRKW through education of tourists and voluntary guidelines. The personal attachment each whale watch operator interviewed feels for the SRKW is transcribed and use as a tool in their professional life. The blending between private and personal life as well as the amount of time dedicated to these three pods might create a feeling of proprietorship of the SRKW from the whale watch operators, feeling that is called psychological ownership.

Psychological ownership is usually felt when someone "legally" possess an animal (e.g. pets) but it can go beyond that legal aspect. Possession of a nonhuman animal is not mandatory to feel like one has rights over it. If one can control the target, has extensive knowledge of the individual or if the self is fully invested into it, then feelings of ownership can rise and be just as strong as if the animal is legally owned. In the case of the SRKW, there is no sign of the interviewees' control of the SRKW as the interviewees do not seem to be looking to control the pods in any way. Proof is, several whale watch operators said that the SRKW are coming less and less around the San Juan Islands, but also later every year. None of the interviewee try to control the presence of the orcas, but rather try to control other aspects (e.g. underwater noise, distance) with the hope that the SRKW will come back more if these issues are managed properly. However, both the extensive knowledge they have on the pods and their personal investment in the orcas suggest the creation of

psychological ownership in the whale watch operators' perception of the SRKW. The fact that they can recognize the SRKW by their dorsal fin or saddle patch and recognize their behaviours (e.g. foraging, socializing, resting) play a vital role in the perception they have on the SRKW and their practice itself. Their extensive knowledge and amount of time on the water with the pods as well as the numerous experiences (Pierce et al, 2001) lived with them might influence the creation of this feeling that they have rights over the SRKW as they know them a lot more than other actors (e.g. government, fish industry, military). In other words, the more a person interacts with the target of the ownership, the better it is known to the person who then develops this feeling of possession on the long term (James, 1890 in Brown et al, 2013).

Knowledge and investment into one species bring a sense of responsibility (Brown et al, 2013; Pierce et al, 2003), a need to protect it at all cost in order to keep the community's identity immaculate. These notions of responsibility and protection can come from one individual or a whole community with a shared identity and possibly a shared professional activity, such as whale watch operators in the SRKW case. This shows a strong connection with one another, sharing the same goal of saving the SRKW, and the same way to do it, which is through whale watching. Although some of them do other jobs (e.g. photographer, artist), they all feel responsible to save the SRKW, because of this knowledge and "closeness" they share with the pods. In order to protect the SRKW from dangers, they have instated voluntary guidelines for all whale watch boats to respect distances and speed from the SRKW. Their responsibility towards the SRKW is shown through the professional sacrifices they make for their survival by staying at a certain distance from them, which can bring frustration and disappointment for tourists. This responsibility is enhanced by the fact that the SRKW are endangered and have a "deadline" before it is too late, deadline which Matilainen (2017) writes it can create cooperation between different actors (e.g. scientists and whale watch operators) but also conflicts in relation to the management of resources to protect the animal (e.g. whale watching, fish farms, dams).

Social representations and psychological ownership both put the notion of identity in the foreground as what surrounds people and what they relate and feel close to is building their individual and community's identity. The sense of place plays an important role to strengthen one's identity as it tries to understand the emotions that link an individual and a place (Matinlainen, 2017). One of the interviewees uses the exact words of "sense of place" to describe the part played by the SRKW in the Salish Sea, saying they are an *integral part* of the place, and that *this area is really about them*. This sense of place felt by some interviewees is built from historical and cultural knowledge of the pods as well as the numerous interactions

they have with them and their daily responsibility to educate tourists and others about the SRKW's situation.

This section showed how psychological ownership influences the way interviewees, especially whale watch operators, perceive the SRKW and how their practice is evolving from it. Both social representations and psychological ownership are tools to enhance the identity of an individual or a social group through making the phenomenon or object familiar. The whale watch operators have an extensive knowledge of the SRKW's situation and invest a lot of their personal and professional time in them. It creates a strong connection with the pods which is enhancing the attachment and feelings of care and responsibility toward them. This personal investment is vital for the SRKW's survival as whale watch operators are not only aware about their own possible negative effects on the pods, but also transmit their knowledge to tourists who can change their habits. The recent changes in practice, although not recognized by all, is putting a priority on the SRKW's wellbeing rather than the whale watch industry's financial interest, showing the deep connection the whale watch operators have with the pods.

7.4   Displacement of the blame as a way to cope

This final part discusses the scapegoating lived by the whale watching industry from the U.S government and other actors involved in the SRKW's conservation (e.g. fishing industry). This is done in order for them to not have to make any change to their lucrative activities and shed the light on a smaller industry that is already seen as negative by a large number of people. It has been said in some interviews by whale watch operators and scientists alike that the whale watch industry is the scapegoat of the situation around the SRKW. This section shows what scapegoating involves as well as how the interviewees perceive this "scapegoating" from the government during Orca Task Force meeting.

Scapegoating is understood as the act of putting the blame of a mistake or negative results onto a specific individual or group's back that is not fully responsible for the matter, if at all. (Medcof & Roth, 1979; Rothschild et al, 2012). Those responsible (partly or completely) refuse to acknowledge their mistakes and find a third party that is less powerful than theirs and use their own power to blame other, as it is shown with the SRKW situation. After several readings (Ford et al, 2010; Lundin et al, 2016; Shields et al, 2018; Wasser et al, 2017) and all fourteen interviews discussing the dangers faced by the SRKW and where they come from, it is a possibility that the decline of their population may have been unfairly put on the whale watch industry's back rather than each actor involved owning their responsibility (e.g. government, fishing industry, commercial industry, whale watch industry, military). Since summer 2018, a lot of attention coming from media

and tourists from all over the world has shed a light on the situation the SRKW are facing. The U.S government and other actors considered as having a role to play in the pods' endangerment and survival feel pressure to do something for the orcas' conservation. The results of the interviews show that instead of all of the actors acknowledging the dangerous aspects of their activities and behaviours towards the SRKW, the government has decided to put the blame on the whale watch industry by enforcing strict regulations.

Individuals or organizations using scapegoating know that they are responsible for some of the issues, but instead of acting on the negative emotions they feel (e.g. guilt, frustration), they try to eliminate them by displacing them onto another individual or group (Johnson, 1961; Drever, 1952; Aveline & Dryden, 1988; Douglas, 1995). In the case of the SRKW, the U.S government and other actors projected their own discomfort and refusal of acknowledging their responsibility in the SRKW's conservation onto the whale watch industry in order to feel better, to have acted on the situation and divert the attention and blame they feel onto others. The reasons for those enforced regulations, according to the interviewees, come from the fact that whale watching boats are physical and easily seen on the water, counter to the lack of fish in the water. They are contributing to the underwater noise water and put on the foreground of the issue although they are not the only ones. It has been written in several scientific articles (e.g. Seely et al, 2017; Ayres et al 2012) that whale watch boats are not the only perpetrators of the noise in the Salish Sea, and the guidelines created by the Pacific Whale Watch Association, the distance and speed to be respected might erase most of the noise that whale watching boats could induce to the SRKW. In addition, most articles relating the underwater disturbances were published during the 2000s, and very little research has been made since then to update on the noise since the voluntary guidelines and regulations were put into place. Interviewees specify that some organizations in the Salish Sea use those "old" articles as an excuse to blame the whale watch industry for the SRKW's disappearance from the Salish Sea, not taking into accounts the changes in practices that have been implemented. On the opposite side, an interviewee insists that they rely on science only, and that it shows how bad the whale watch companies are for the environment and cetaceans in general.

Storr (1968) writes that minorities or smaller groups are scapegoated because they are considered as weaker than others. However, they are also targeted because they carry power in specific situations, hence looking dangerous to stronger groups that might not be so influential those situations. It appears that the projection of one's weaknesses is seen a lot more in powerful groups as they have issues seeing their own shortcomings (Adorno, 1950 in Douglas, 1995, p.119). Douglas (1995) adds that those who create the scapegoats are known to the scapegoated and vice versa,

as knowledge of the "enemy" is needed to be able to efficiently project the negative emotions, behaviours and traits towards the scapegoated. Regarding the SRKW's scapegoating situation, it has been said in interviews by whale watch operators and scientists that industries such as fishing or commercial industries have a lot more power than the whale watch industry and can pressure the U.S government to not force them to any change or sacrifice from their part. While the whale watch industry has been accommodating and accepted almost all the regulations, they fought against one in particular. During an Orca Task Force meeting, there were talks about completely ban whale watching in the U.S part of the Salish Sea. The whale watch industry lobbied against it and the recommendation was abandoned.

The mechanisms discussed below help getting a better understanding of the different perceptions regarding the SRKW's endangerment. The use of anthropomorphization of the pods show a need to make sense of the emotional attachment felt by the informants, especially whale watch operators. By "humanizing" them through the means tackled in this section, they are able to relate to the animals in a deeper way and take actions to protect "one of their own".
Narratives in the form of stories have been used by all 14 interviewees in order to explain the point they are making. The two main topics on which stories were included arose when speaking of the pods' endangerment (e.g. private boats almost running over one individual, seeing a skinny-looking killer whale disappear) and when wanting to show their attachment to them (e.g. encounters where they felt a personal connection). These stories strengthen the central core elements as most of them came from the interviewees themselves rather than me asking about it.
Psychological ownership is another mechanism used involuntarily by the informants to show their attachment to the SRKW, but also how this attachment can give an impression of possession -physical or else. The knowledge and investment of time; energy and money in the pods' survival are vital to understand their perception on the matter and how their practices can shed a light on the presence of psychological ownership. From this sense of possession comes the notion of responsibility towards the SRKW. Responsibility to save them and protect them against whatever and whoever might worsen their situation. The protection of the community's identity and of the social representation of the SRKW are other explanations for the rise of the sense of possession and responsibility. The identity can not be broken, and a feeling of power over a familiar object can help control a fragile identity.
Finally, the scapegoating mechanism that is used by some institutions and organizations is a way to cope with the endangerment of the SRKW and to avoid facing the facts and take proper actions that might force them to make sacrifices. As discussed above, the whale watch industry is the easiest target because

physically present on the water, less powerful than other organizations as well as already heavily criticized by some of the locals and media outlets.

These mechanisms highlight the complex situation surrounding the SRKW's endangerment. While all the interviewees are somewhat attached to the pods and aware of the urgency to protect them, they do not all agree on the reasons for their endangerment, or how to act on it. And if they do agree, they have different ways to tackle it that might clash with one another, creating more problems than solving them.

8 Conclusion

The main purpose to this study was to get a better understanding of how people characterize their perception, feelings and experiences in the case of the endangered SRKW in the Salish Sea, with a focus on the non-consumptive activity that is whale watching. To do so, the social representations' theoretical framework and phenomenological approach were used to analyse the data collected.

For a better understanding of the perceptions and where they come from, the social representations of the SRKW were divided into two subgroups, the central core elements and the peripheral elements. The central core elements represent the main aspects that form the social representation of the pods, namely their endangerment and the emotional attachment the locals have to these individuals, while the peripheral elements consolidate the central core ones.

The analysis show that the social representation of the SRKW influences the locals' thoughts and actions, as they are all linked together and come from personal experiences. The core elements give the locals the feeling of wanting to protect the SRKW while the peripheral ones, namely stories, anthropomorphization and the presence of psychological ownership of the pods strengthen the core elements as they help to relate to the SRKW in order to make sense of their behaviours. Most of them are even taking on the roles of the pods' "lawyers" when speaking to tourists, media and so on. In order to protect to pods, the actors involved have different ways to do it. While the whale watch industry continuously improve its practice with voluntary guidelines, transmission of knowledge to tourists and such, the U.S government created the Orca Task Force which gathers professionals to discuss the issue and find compromises, if not solutions. Departments of the government such as the Washington Wildlife Fish and Wildlife are also present on the waters especially during the presence of the SRKW in the Salish Sea, in order to regulate the boats and make sure everyone follows the regulations put in place.

However, if everyone working around the SRKW agree that they need to be protected from extinction, conflicts arise as to what can be done to improve the SRKW's situation as their numbers keep decreasing.

The mechanism of scapegoating emerged in the analysis as an interpretation of the perception of the conflict between the US government and the whale watch industry from several informants. As many of the decisions made by the government towards the survival of the SRKW involved the whale watch industry, there are suspicions of putting the blame on the easiest target rather than on all the actors. It is seen as unfair and detrimental to the SRKW's protection as most interviewees view the whale watch industry as helping the cause rather than worsening it.

The conclusion that comes from this thesis is that although there is no doubt that the whale watch industry is partly responsible for the underwater noise and general disturbance in the water around the SRKW, it is one of the only industries making efforts to improve the pods' underwater environment. It has also been shown through scientific articles and interviews that more urgent matters need to be tackled, such as the lack of food, which is considered to be the main reason for the population decline.

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Appendix 1

Respondents codes	Affiliation of the respondents	Date of the interview	Duration of the interview
R1	NGO	3rd of February 2020	Around 1 hour
R2	Whale watch operator	5th of February 2020	Less than 1 hour
R3	Whale watch operator	9th of February 2020	Around 1 hour
R4	NGO	11th of February 2020	Over 2 hours
R5	NGO	12th of February 2020	Less than 1 hour
R6	Scientist	17th of February 2020	Around 1 hour
R7	Museum	19th of February 2020	Less than 1 hour
R8	Government	19th of February 2020	Around 1 hour
R9	Whale watch operator	21st of February 2020	Less than 1 hour
R10	Whale watch operator	24th of February 2020	Over 1.5 hours
R11	Biologist / NPO	25th of February 2020	Less than 1 hour
R12	Whale watch operator	26th of February 2020	Around 1 hour
R13	Whale watch operator	20th of March 2020	Less than 1 hour
R14	Producer	18th of November 2019 and 28th of April 2020	Over 1.5 hours for both interviews together

Table of all the interviewees, their codes in the thesis, the date of each interview and their duration.