

**Wageningen University – Department of Social Sciences**

*Chair group- Sociology of Consumption and Households*

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## **What is Sustainable Leather?**

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**September 2017**

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## What is sustainable Leather?

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| Course:                | MSc Thesis Sociology of Consumption & Households                           |
| Course code:           | SCH-80433  |
| Period:                | 01-12-2016 to 25-09-2017   |
| Publication place:     | Wageningen University, Wageningen  |
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## Abstract

Sustainability in the leather industry has been a much-debated topic since the beginning of leather tanning. There have been many perceptions regarding sustainable leather for the different actors involved in the leather industry. Little research has been done on what sustainable leather means for all the different stakeholders involved in the leather industry. This thesis examines the meaning of sustainable leather for different stakeholders involved in the industry - chemical companies, a social enterprise selling leather bags, NGOs, and consumers. Twelve semi-structured interviews were carried out to find out what sustainable leather meant for different stakeholders involved in the leather supply chain and what they have done to make leather sustainable. The study made use of practice theory and framework of care by Tronto. The data collected was organized into different registers following the article 'What is a good Tomato' by Frank Heuts & Annemarie Mol. In total, the results were classified into 5 different registers- 1) economic, 2) social, 3) environmental, 4) temporality and durability and 5) naturalness. The results showed the diverse variety of different registers and themes for different stakeholders.

Keywords- Sustainability, leather, registers, practice theory, care

## **Acknowledgement**

This study is a continuation from my Academic Consultancy Course for a social enterprise based in Amsterdam. Writing my Thesis for the chair group Sociology of Consumption and Household was a challenge, and more importantly a very good learning experience.

I would like to thank my supervisor Chizu Sato, whose continuous support as well as strict guidance enabled me to be motivated and interested in my topic till the end. I enjoyed the discussions with her and every meeting gave direction to a new perspective and possibilities for further research on sustainability in the leather industry.

Moreover, I would like to thank my ACT group for all their support in the times when I needed it the most. They were surely a family for me away from home.

I am grateful to my family, especially my parents to keep me motivated to finish the thesis on time. A special thanks to my grandmother, the person I have known and seen the most in my life- for all her encouraging words. Despite being illiterate she has been a pillar of support all throughout my life. Her mere presence is enough to instil confidence and belief in me.

Finally, I would like to thank my best friend Ashish for his help and support throughout- not only for my thesis but more than that. I cannot express the help and motivation I got from you in words.

I hope that this thesis contributes to making the leather industry more aware about the immediate problems that need to be solved so that the unprivileged could also live with dignity. We think about ourselves and our needs all the time but for once we should all come together and think about the unprivileged ones- the people who make the shoes we wear, the lovely clothes we buy and the fancy leather bags we carry. It is not a compulsion, but an act of kindness to make the world a better place to live for those people. I hope to put results of my Thesis and many more studies on this topic into practice. This would make sustainable fashion a new trend.

Enjoy reading about sustainable leather!

Wageningen, The Netherlands, September 2017

Amit Choudhary

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## Introduction & Research objective

In this thesis, I looked at the meaning of sustainable leather. Practicing sustainability has always been considered a very important aspect for any firm in today's world and most companies have found it hard to grow and survive without including sustainability in their activities. In every consumer goods sector, we have observed an increase in philanthropic behaviour by firms to ensure that they grow, and social responsibility has been on the rise. Regardless of whether one calls it corporate social responsibility (CSR), environmental, social and corporate governance (ESG) or just simply sustainability, a common understanding has emerged around the world: a company's long-term financial success goes hand in hand with its record on social responsibility, environmental stewardship and corporate ethics (Kell, 2014). Consumers, especially in the west have become more aware about the practices surrounding goods they buy and have a keen interest about the origins of the goods. The origin of the goods means the activities related to production of the goods at the place where the goods are imported from. Reflexive consumers are more concerned about how labourers are treated in the factories where the leather is produced - if there is child labour involved, if they are paid fair wages, whether the work place is safe for them, and many other ethical concerns. We have seen this rise in consumer awareness in almost all industries. This has led to many protests and finally emergence of conflict free diamonds, fair phones, & other fair-trade products, mainly in the western world (Mukherjee, 2012). With so many firms and the consumers in general focussed on the idea of sustainability, what makes a product 'sustainable' remains a key question.

Sustainability has always been a much-debated topic. Since the early 1990s in both the policy arena and in academia (Durning, 1992; United Nations, 1992; UNDP, 1998), the literature has been consistent in recognizing that the current patterns of consumption worldwide are 'unsustainable'. Sustainable consumption research and policy making has therefore been a critical but relatively recent contribution to the area of society and environmental interactions (Sahakian & Wilhite, 2013). One of its main challenges was to investigate how higher standards of living could be achieved for more people with a more equitable sharing of the global resource with reduced energy and material consumption, avoidance of resource depletion, and curbed local and global pollution. This seemed very appropriate to apply in the case of the leather industry as it also dealt with improved livelihoods in the countries where the products are imported from. Sustainability has been a mentioned goal of businesses, nonprofits, governments and consumers in the past decade, yet measuring the degree to which an organization has been sustainable or has pursued sustainable growth has proved to be difficult. A commission named the Brundtland Commission, compiled by the United Nations in 1987, released a report named 'Our Common Future', defining what sustainable development meant. According to that report, sustainable development is:

development that meets the needs of current generations without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: first was the concept of 'needs', the essential needs of the world's poor, to which overriding priority should be given; and second, the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.' (United Nations, 1987).

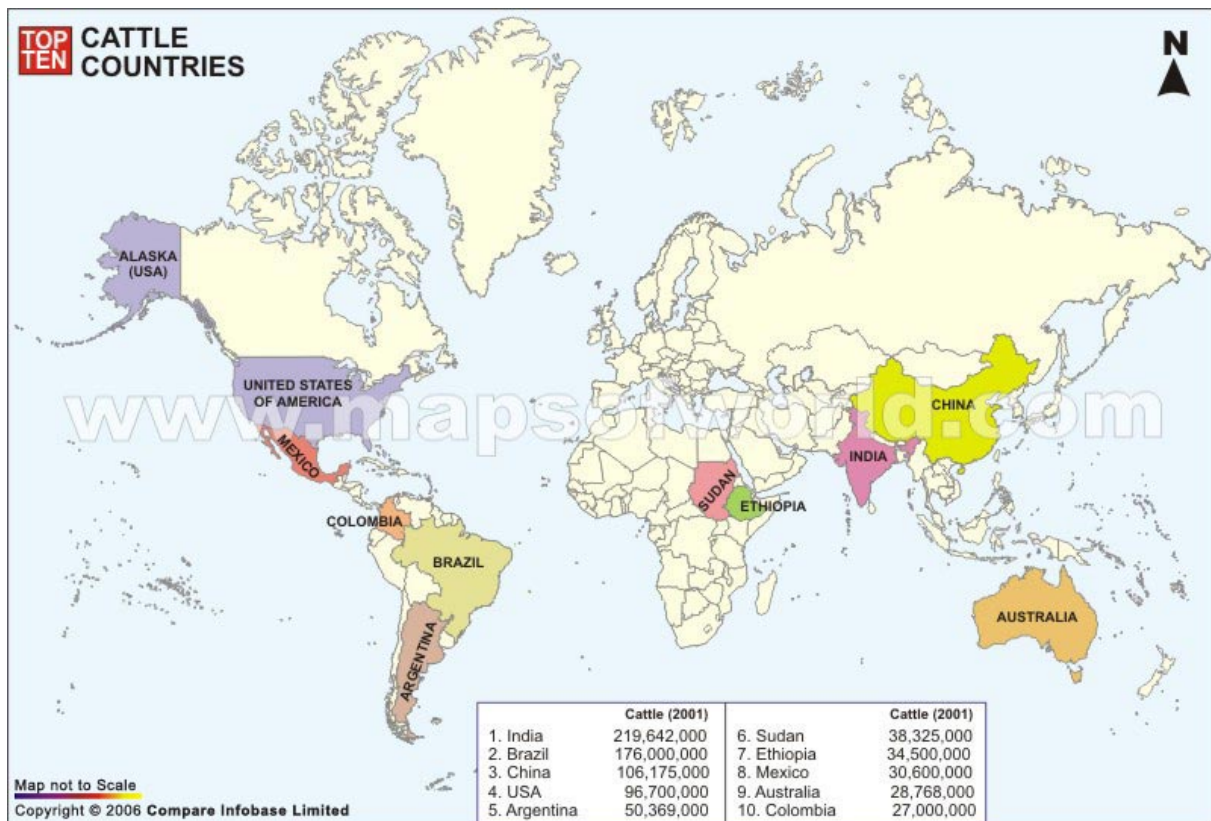
This has been the most frequently used definition of sustainable development (IISD, 2015). However, in practice it is more than this. Instead of taking for granted this definition in this thesis, I tried to understand sustainable leather in practice as illustrated by different actors who were associated with the leather production process, including the chemical companies, the NGOs, the social enterprise, and the consumers. To do this, I took inspiration from the article 'What is a good Tomato' by Heuts & Mol from the University of Amsterdam. I used the Framework of Care by Tronto & social practice theory as part of my conceptual framework and had semi structured, in depth interviews to analyse what sustainability meant for each of these actors in the industry.

Leather is a highly-globalized product and continues to be traded all over the world. It is a by-product of the meat and dairy industry. Emerging economies like India & China play a big role in this global supply chain as they are one of the leading countries producing bovine<sup>1</sup> leather for export (MVO Nederland, 2013). The leather market has been a major contributor to the Indian economy as it employs a whopping 2.5 million people, most of them were the less privileged people in society (Council for Leather Exports, 2016). The industry has had a positive effect on the local economy as it has provided the less privileged people with jobs, but several negative issues remain. The industry does not pay fair wages, still uses some amount of child labour, and there is inefficient machinery usage (Worst Polluted, 2011). Furthermore, the leather industry has been one of the most polluting industries because of the generation of huge amount of liquid and solid wastes. It is also responsible for emission of obnoxious smell because of degradation of protein rich material of skin and generation of gases such as ammonia, hydrogen sulphide and carbon dioxide. (Kanagaraj, Velappan, Babu, & Sadulla, 2006). Kanagaraj et al (2006) reviewed the kinds of solid wastes generated in the leather industry and the useful technologies developed to overcome the problem. According to this article, accumulation of solid waste as sludge has been a big problem as it often chokes pipes at effluent treatment plants and therefore reduces their efficiency. In general, the leather tanning process puts high pressure on the environment due to the complex processes involved. It continues to be a big problem in emerging economies, where waste management is a big issue and transfer of new technologies has been slow. Most of the world cattle are in countries like India and China which have big waste management problems. Both countries alone account for more than 300 million of the 1.3 billion cows in the world (Figure 1). Next, I discuss the triple bottom line approach- the emphasis put on People, Planet & Profit. Then I move to what the leather council defines as three important aspects of sustainability in the leather industry- environmental, ethical & social and economic sustainability.

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<sup>1</sup> Bovine or Cowhide leather is the most abundant and common leather source. Cowhide offers maximum value for texture, appearance, durability, and comfort. Cow leather is used for virtually every leather product including outerwear, jackets, casual and biker style coats, gloves, belts, saddles, bags, furniture, straps, shoes, boots, and upholstery. Source- United Glove (n.d.)





**Figure 1-Top 10 Cattle Countries**

More and more companies are now focused on the emphasis they put on the order of importance for people, planet and profits. The Triple Bottom Line (TBL) is an accounting framework that incorporates three dimensions of performance: social, environmental and financial, referring to the people, planet and profits respectively. The TBL dimensions are also commonly called the three Ps: people, planet and profits. According to Slaper & Hall (2011), John Elkington strove to measure sustainability during the mid-1990s by encompassing a new framework to measure performance in corporate America. This accounting framework, called the triple bottom line (TBL), went beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions that can be difficult to assign appropriate means of measurement. (Slaper & Hall, 2011). Having a focussed analysis of results with respect to performance along the interrelated dimensions of profits, people and the planet, triple bottom line approach proves to be an important tool to support sustainability goals (Slaper & Hall, 2011). For a company, it is important to not only focus on these three aspects, but also have the order of importance for the three Ps figured out. Literature suggests that the practice of putting focus on the three Ps is a recent one. We witness that in the leather industry as well. The practice of labelling a bag as 'ecological-leather' is a step in that direction. More and more brands are now interested in selling sustainable leather which is mainly because of rise in consumer awareness. Increased consumer interest in environmental problems has changed consumer consciousness, lifestyles and behavioural patterns. (Park, Oh, & Na, 2013) Governments and corporations seek to offer environmental solutions to the enforcement of environmental regulations. There are stricter regulations and heightened consumer consciousness over the environment and therefore the importance of eco-friendly management of global corporations have heightened. (Park, Oh, & Na, 2013). People are inclined towards buying products which are made with care for both the

environment and the people. Slaper & Hall (2011) stated that well before Elkington introduced the sustainability concept as "triple bottom line," and before environmentalists wrestled with measures of, and frameworks for, sustainability. The three Ps do not have a common unit of measure (Slaper & Hall, 2011). Profits are measured in a monetary form but it is tough to measure the environmental and ecological dimensions. The triple bottom line approach helps us realize why the three aspects of sustainability discussed below are important. The triple bottom line- People, Planet and Profit correspond to the three aspects of sustainability- environmental, ethical & social, and economic sustainability.

The three important aspects for the leather producing industry are environmental sustainability, ethical & social sustainability and economic sustainability. According to a report from the Leather Council (2014) report, these aspects can be further explained by dividing them into sub points as follows:

- *Environmental sustainability:*

According to the Leather council, environmental sustainability is facilitated by activities like full compliance to environmental regulations, which includes regulated water usage, air emissions and solid waste management. Moreover, other environmental sustainability activities include commitment to energy efficiency, defined and carried out Life Cycle Assessments (LCAs) as well as monitoring environmental footprint of leather. There is a need for more commitment to work towards best practices in processing, and anticipating ever increasing environmental controls and carbon reduction targets (Leather Council, 2014). This corresponds to Planet in the triple bottom line. It is different from this P in TBL in the way that it is more specific. In this situation, it talks about the steps that need to be taken to improve environmental sustainability in the leather industry.

- *Ethical & social sustainability:*

Ethical and social sustainability involves compliance to product safety regulations, mainly on the chemical side, and to health and safety as well as employment regulations. This includes no child labour, respect of worker's rights, and commitment to animal welfare practices. This aspect corresponds to the 'People' as described by the Triple Bottom Line approach. Again, it is different from it because it is specifically used by the leather council to improve sustainability practices in the leather industry. On the other hand, the definition of the Triple Bottom Line is more about the importance that 'People' should get when compared to 'Profit' and 'Planet'.

- *Economic sustainability:*

Economic sustainability involves being committed to fair trade practices, traceability of raw hides and skins- that is the origins of the raw hide/skin and the condition of slaughtering facilities and finding economical ways of leather production in order to ensure optimal use of resources. All this implies saving costs & still being sustainable in the leather supply chain right from the start (obtaining the leather hides) till the product is ready to be shipped. (Leather Council, 2014) It is important that these activities are carried out in a sustainable & economic manner. Another very important activity for achieving economic sustainability is to observe and promote the correct labelling of leather and leather products, which should be in line with international laws and standards. This is tricky one to link to the 'profit' aspect of the Triple Bottom Line approach. Economic sustainability involves saving costs while carrying out sustainable practices while 'profit' in the triple bottom line approach is more used to signify its importance compared to the other two Ps (planet and people).

The leather manufacturing industry comprises several different processes, and tanning of raw hides is one of the most important activities. Tanning involves processing of raw leather to make it more resilient and strong for use in a variety of different products. Tanning is a widespread, global industry that works with both light and heavy types of leather. Light leather is generally used for shoes and other soft products such as purses, and heavy leather is used for straps, belts, and in various machinery. (Worst Polluted, 2011). The tanning process itself is complex and has many phases. First, acquisition and pre-treatment of raw animal hides is carried out. Then the hides are treated with a tanning agent. Finally, the hides are dried and shined before sending them to product manufacturers. The two main types of tanning are chrome tanning and vegetable tanning. Chrome tanning makes up a large majority of the industry. Chromium compounds are applied to protect hides from decay and to make them more durable against moisture and aging. Chromium interacts with fibres in the raw hide during a bathing process, after which the tanned hides are wrung and prepared for finishing. Other materials that could also be used in the pre-treatment and tanning processes include sulfuric acid, sodium chlorate, limestone, and limestone soda ash. Due to the repeated processes of soaking raw hides and wringing them out, the tanning process creates large amounts of wastewater that can be contaminated with many different chemicals. Because there are a wide variety of chemicals used during the tanning process, wastewater from this industry can have very different chemical makeups. However, chromium contamination and high chemical oxygen demand are typical problems associated with tannery effluents, both of which can pose serious risks to the environment and human health. Therefore, using chromium without proper waste management results in the leather product scoring low on environmental as well as social & ethical sustainability aspects of the Leather Council. Many of the tanning methods are still not fully understood. It is still not clear which tanning methods are more sustainable. As previous research has been unable to justify the use of one tanning method or the other- the common conclusion that we could derive is that chrome tanning is more sustainable for now but only if there is good waste management.

Sustainability remains a problematic issue in the leather industry. There are many perceptions about what can be regarded as sustainable leather. There has been little research done on what different actors mean by sustainable leather. Therefore, this research aims at finding out what are the different aspects that different actors put focus on when they define sustainable leather. This research formulated and classified the responses into different registers, ranging from environmental, ethical & social, and economic sustainability to temporality & naturalness. There seemed to be diverse definitions of 'sustainability' in the leather industry. It is a very complex concept to be explained and to tell what accounts as sustainable leather. It was important to investigate how different actors viewed sustainability, and how they acted on it. I used the theory of practice and Tronto's framework of care as conceptual framework for my thesis. The theory of practice helped me to find out how different actors put all the different ideas they or their organization have into practice. I used the definition of Practice Theory by Shove because he talks about interactions between images, skills & stuff, the interaction of which leads to the accomplishment of a practice. I have discussed in the next section the meaning of these concepts and have made relations to the practices in the leather industry in the analysis section. With the help of these two conceptual frameworks, I formulated and answered the following research questions-

**Main Research Question-**

What is sustainable leather?

**Sub Research Questions-**

1. What does sustainable leather mean to the diverse actors in the leather industry?
2. What do different actors do to make leather more sustainable?

Heuts & Mol (2013) classified good tomato into different registers based on 12 in-depth interviews. My research was inspired from this article as they did something not done before with good tomato- classifying it into different registers. I did a similar research, involving different actors in the leather industry to find out what sustainable leather is. This kind of classification of the meaning of sustainability has not been done before in the leather industry. I do not use the word good leather because leather production involves such an intensive process that it was beyond the scope of this master thesis to consider the meaning of good leather. Sustainable leather however is something which is less abstract, and a bit easier for interviewees to talk about- especially the consumers. I did the same thing with sustainable leather what Heuts & Mol (2013) did with good tomato. I carried out 12 semi-structured interviews and then divided my analysis into 5 different registers.

Big brands of leather products have turned to emerging economies because of cheap labour and raw material. The new technologies have taken a long time to get absorbed by leather tanneries in India & China. Due to financial constraints, most tanneries here have not operated in a sustainable way. This raises the question that what should be the real focus when talking about improved sustainability in the leather industry: is it to focus on new ways of tanning leather or a more focussed approach on improving the more obvious problems like waste management and to get people out of poverty by giving them work, and more care for workers by ensuring that they use protective equipment? It is important to consider what consumers of leather goods think about issues regarding sustainability in the leather industry and which factors are the most important according to them when it comes to raising sustainability in the leather industry.

I focussed on important stakeholders in the supply chain of a leading social enterprise, which is a seller of finished leather bags and accessories located in Amsterdam, the Netherlands. This social enterprise works on maximizing social impact alongside profits, therefore trying to improve human and environmental well-being in the country it sources from. The owner of the enterprise wanted to set up a social enterprise that is not only profitable but also gave back by approaching business in a fair, sustainable manner-by caring for workers, minimizing use of harmful chemicals in the production of leather, and selling leather bags which have a more natural feel. My thesis however, looked at all different actors in the leather supply chain and this social brand was just one of them, and the only brand involved as many other brands were resistant to talk about this topic. The different stakeholders I focussed on were leather experts here in Netherlands, namely the chemical companies, NGOs, consumers and the social enterprise. The chemical companies export chemicals to the tanneries abroad. They also conduct research and keep updating the list of chemicals & therefore ensured continuous improvement in the usage of chemicals. This results in less and less harmful effects on the environment & workers. The NGOs work continuously on improving the leather industry. They introduce sustainable practices in the

developing part of the world. They have their own perceptions and definitions regarding sustainable leather. I first explored the general definition of sustainability and then discussed sustainability particularly in relation to the leather industry. Sustainability continues to be a key and talked about topic in the leather industry. I reviewed how sustainability is defined by different actors. Furthermore, I discuss the complex technical aspect of leather tanning in detail. Hence, in my thesis, I have analysed the different definitions of sustainability for different stakeholders, and have mapped out what sustainable leather means for them instead of a general definition. Sustainability could mean different things for the different actors involved in this industry. For example, the chemical companies may regard sustainability as using less harmful chemicals which are managed properly and cause less harm to the environment. On the other hand, sustainability for consumers may be totally different. They may also consider other qualities of leather, or the ethical issues surrounding the production of leather. They may prefer something which does not compromise on quality and is sustainable too.

This thesis was made into five main chapters. The first chapter is the introduction, wherein I have discussed the background & current sustainability practices & other issues in the leather industry. I included literature review in research already done on sustainability in the leather industry for different actors and came up with the research objective and research questions. In the next chapter I discussed the conceptual framework. The conceptual framework consists of the practice theory and the framework of care by Tronto. The third chapter discusses the methodology used in this thesis, which includes the data collection & analysis methods. The fourth chapter is the discussion of the different registers I came up with from a lens provided by practice theory and Tronto's framework of care, rounding off with a synthesis. I rounded up with the conclusion & recommendations in the fifth one.

## Conceptual Framework

In this section, I discuss the conceptual framework I used for this thesis. First, I discuss the practice theory and then the framework of care by Tronto. I first defined the concepts and discussed what different sociologists said about them. I used the definition of practice theory as defined by sociologist Shove as the understanding of practice by Shove- the interaction of skills, material and stuff could be easily related to sustainability practices by different stakeholders in the leather industry. Understanding sustainability in the leather industry was made easier by using this concept and more importantly to answer the research questions 'What does sustainable leather mean to the diverse actors in the leather industry?' and 'What do different actors do to make leather more sustainable?' On the other hand, Tronto's framework of Care was helpful in answering the second sub-research question too-involving the activities of different actors regarding sustainability practices. Tronto's framework of Care involves the different stages of recognizing care needs and taking action to solve issues. Therefore, it was really helpful to identify care needs in the leather industry and find solutions for them. After that I discussed it in relation to sustainability in the leather industry.

## Practice Theory

A theoretical approach having its roots in the mid-20<sup>th</sup> century has recently been revived and brought to the study of consumption and sustainability: social practice theory

(Hargreaves, 2011). This approach was different in the way that it shifted focus away from atomized products, technologies and individuals, towards an understanding of everyday practices, many of which included routinized activities. In contrast to conventional, individualistic and rationalist approaches to behaviour change, social practice theory decentred individuals from analyses, and instead focussed on the social and collective organization of practices- broad cultural identities that shaped individual's perceptions, interpretations and actions within the world. (Hargreaves, 2011) The social practice theory built on work by Bourdieu (1977), Giddens (1984) & Schatzki (1996). Wilhite (2010) proposed that formation of practices drew on knowledge that was distributed between people, things and culturally grounded social structures. This made the object of study decidedly more complex- it seemed initially easier to focus on either people or products, rather than on practices- it also introduced a rich terrain of study (Sahakian & Wilhite, 2013).

### Understanding social practices and how they developed

The works of social practice theorists like Giddens (1984), Bourdieu (1977) Reckwitz (2002), Schatzki (1996), (2002) and Shove (2010) showed that the practice itself, rather than the individuals who performed them or the social structures that surrounded them. Thus, in practice theory practice is the core unit of analysis. (Hargreaves, 2011) According to Giddens (cited by Hargreaves (2011)

‘the basic domain of study of the social sciences...is neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time.’

Within practice theory, anti- or pro-environmental actions, and sustainable patterns of consumption, were not seen as the result of individual's attitudes, values and beliefs constrained by various contextual ‘barriers’, but as embedded within and occurring as part of social practices (Hargreaves, 2011). Therefore, social practice theory drove away attention from moments of individual decision making, and towards the ‘doing’ of various social practices and the inconspicuous consumption (Hargreaves, 2011). Moreover, individuals themselves were removed from centre stage and instead became the ‘carriers’ of social practices, carrying out the various activities and tasks that the practice required (Hargreaves, 2011).

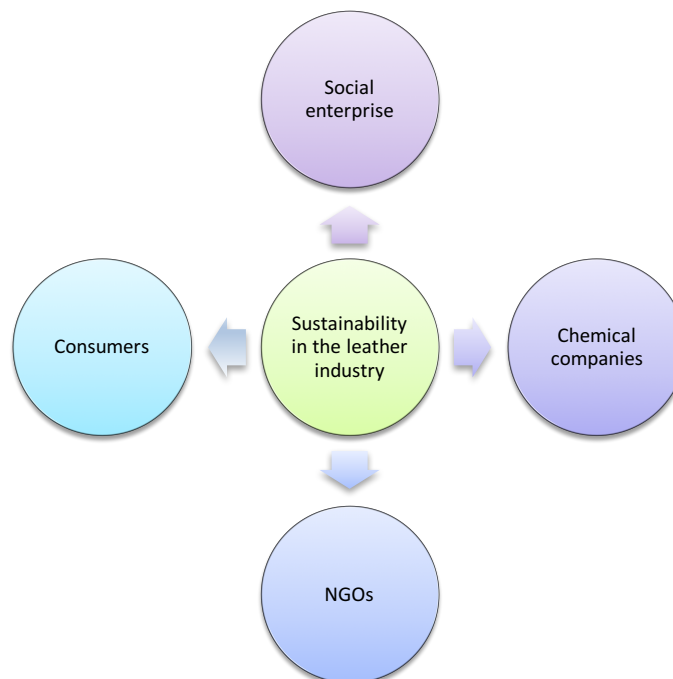
There was disagreement in defining what exactly a practice is. According to Hargreaves (2011), some theorists focussed on the components or elements that made up a practice e.g. Reckwitz (2002) while others focus on the connections between these elements (e.g. Schatzki, 2002; Warde, 2005), and there are still others who focussed on position of practices as a bridge between individual's lifestyles and broader socio-technical systems of provision as projected by Hargreaves (2011). Hargreaves however adopts Shove and Pantzer's (2005) empirically helpful understanding of practices as assemblages of images (meanings, symbols), skills (forms of competence, procedures) and stuff (materials, technology) that were dynamically integrated by skilled practitioners through regular and repeated performance. For example, if we applied it to the leather industry, leather involves a specific set of images (e.g. cattle, tanneries, etc.), skills (existing methods of leather production), and stuff (the leather itself- senses involved, such as smell of the leather etc.).

From a lens provided by practice theory, links between these elements could be understood as reproduced and maintained by leather companies. By implication, generating more sustainable practices required elements of existing, unsustainable practices to be challenged and broken before being replaced and remade in more sustainable ways. (Hargreaves, 2011). Social practice theory, therefore enables us to raise questions about how to create more sustainable practices in the leather industry. The focus is more on how practices are formed, reproduced, stabilized, challenged and ultimately killed-off.

Hargreaves (2011) states that bringing about pro-environmental patterns of consumption, therefore did not depend upon educating or persuading individuals to make different decisions, but instead on transforming practices to make them more sustainable. Practice theory provides a way to analyse and understand everyday actions in a social context. It thereby shifts away from the conspicuous and extraordinary, to the routine practices in everyday life (Reckwitz, 2002) Although practice theory was applied in various forms to study consumption, it provided useful insights into how consumption is organized (Warde, 2012). Hargreaves quoted Warde (2005:140) when he said, ‘the principal implication of a theory of practice is that the sources of change behaviour lie in the development of practices themselves’. This thesis uses this development of practices to analyse different meanings of sustainability for the different actors involved in the leather chain.

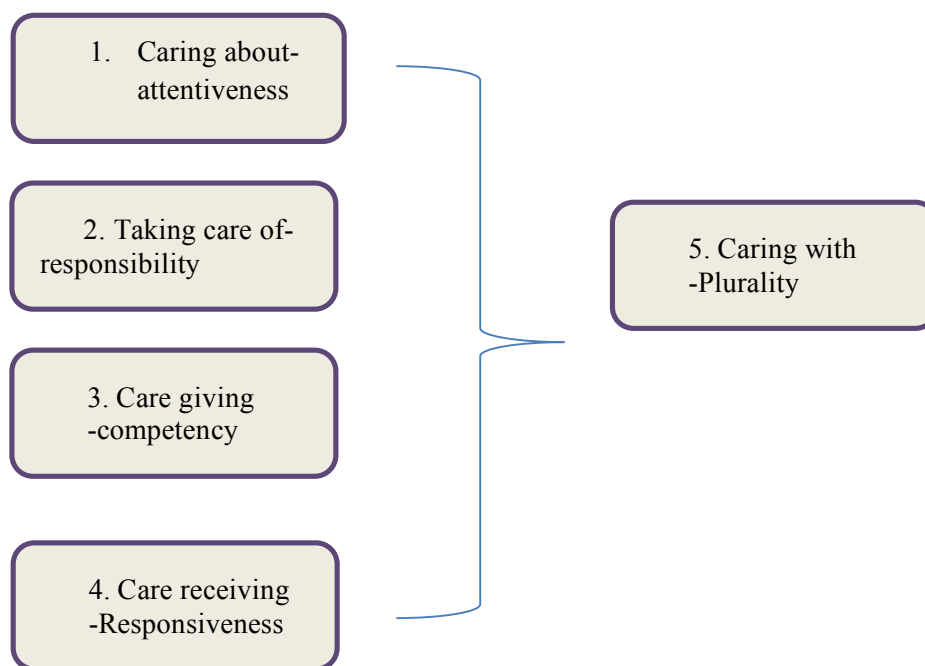
### Tronto’s framework of Care

Each actor (Figure 2), involved in the leather industry cares for something while practicing sustainability in a different way.



**Figure 2- Key Stakeholders**

Caring is an activity interwoven in sustainability. In 1993, Tronto defined care as “a specific activity that included everything we have done to maintain, continue, and repair our ‘world’ so that we could live in it as well as possible” (pg. 101). With world she means our bodies, our environment and we ourselves. Caring has been a practice which indicates efforts that are ongoing, adaptive, tinkering and open ended (Heuts & Mol, 2013). In this article, Mol points out different activities stakeholders undertake in order to ensure that the tomato is cared for in at every stage- for example handling. This is an important contribution to making a tomato a ‘good’ one. In the leather industry, the efforts taken regarding making leather more sustainable are ongoing, and need to be adapted to changes taking place in the industry, whether it be related to either social sustainability; the improvement of labour conditions, economic sustainability- which is developing new innovative ways to make leather tanning more economically sustainable or environmental sustainability- new developments in the field of leather tanning technologies and waste water treatment technology mainly by transfer of knowledge. Tronto (2013a) in his framework of care aims to see whether care needs are met. The framework (Figure 4) provides a way to analyse when and how caring was done, and to be able to make an evaluation about care (Tronto, 2013b). Moreover, the described care ethics centred around social aspects and hereby can be seen how it was formed through unequal power relationships (Lawson, 2007).



**Figure 3- Framework of Care (Tronto, 2013b)**

Tronto’s framework of care has five phases. The first phase of care was *caring about* where someone or a group recognized the existence of a need. After recognition, an assessment was made how this need should be met, that is assuming and noticing the position of another person or group, to see the need- with the ethical quality of attentiveness (Tronto (1993). This can be linked to the sustainability in the leather industry in the way that there was a need to care about serious sustainability issues in the leather industry- both on the social as well as technical fronts.



The second phase was ***taking care of***. It assumed some responsibility for the identified need and determined how to respond to it. Once needs were identified, someone must take responsibility to make certain that these needs were met- with the ethical quality of responsibility (Tronto, 1993). It is important because it involves agency and responsibility to take care of others.

***Care giving***, the third phase of caring requires that the actual care-giving work is carried out. It involved the direct meeting of needs for care, physical work, and in contact with the objects of care. This study analyses how ongoing, adaptive, tinkering and open-ended care giving was carried out by the experts we mentioned before (Figure 2)- the social entrepreneurs, chemical companies, tanning experts, NGOs and consumers. It also needed to be determined what kind of competencies were required to perform the caring tasks of the 'experts'. It is important to realise that money did not solve human needs, though it provided the resources by which human needs could be satisfied. Providing money for care could lead to undervaluing of care-giving. Important with this phase was that it was focused on the direct actors of care giving and not the ones providing money to give care. The ethical quality involved was competency (Tronto, 1993, 2013). This can be related to the 'skill' Shove and Pantzer (2005) talk about. Everyone, based on their skill, or competency, can use this particular quality to provide care for another stakeholder.

***Care receiving***, the fourth phase is after the care-giving work is done. This framework enables us to pay attention to a response from the person, thing, group, animal, plant or environment that has been cared for. It is worth observing the response before judgments about how leather was made and used. Finally, it provides the knowledge whether the caring needs were met. The ethical quality involved was responsiveness (Tronto, 1993, 2013). For the leather industry, this care would be received by the cattle, environment, and the thousands of workers in leather tanneries.

The last phase was ***Caring with***. This is a task for all citizens in a democracy. The collective responsibility with citizens, and for them, contained all members of society to be active. The ethical qualities involved were plurality, communication, trust and respect; solidarity (Tronto, 1993, 2013). In the leather industry, it is the responsibility of all the actors, who we name 'experts' in this thesis to be always active in their efforts to communicate, trust, respect each other. Following the article by Heuts & Mol (2013), I refer to the people I talk to as experts. Each stakeholder, be it the consumer or an NGO representative has an expertise in his field of activity involving leather.

Tronto's framework of care is helpful and relevant to apply in the case of finding out the relationship between what sustainability meant for different actors in the leather industry and care. Tronto (2013a) mentions that care can be deployed discursively to good as well as bad purpose with the help of the example of colonialism in India. Uma Narayan, cited in Tronto (2013a) in her account of British colonialism in India, observed that colonialism did not attempt to justify itself to the imperialist population by claiming to be a system of the exploitation of other's goods, property and labour. Instead, the narrative of self-explanation was a discourse of care. The natives would be Christianised, civilized, made better by their encounter with British, Western and Christian ideals. This would also be applicable to the leather industry as it could be argued that although the production of leather causes a lot of problems in terms of environmental damage, it provides employment to a lot of poor people.

In the 20<sup>th</sup> century, it was commonly argued that care was other to technology (Heuts & Mol, 2013). Care had to do with warmth and love while technology, by contrast, was cold and rational. Caring practices now have included technologies: from thermometers and oxygen masks to laboratory tests and video cameras. In the leather industry, there has been

constant development and use of newer technologies- mainly for tanning of the leather. In case of the workers in leather tanneries, new technology could offer a lot of care. For example, during the tanning process, when the workers dealt with lot of chemicals, protective equipment like gloves, glasses, masks could be helpful and would have given the workers a sense of safety and care. New, better machinery and safer methods of leather tanning could also give the same feeling to the workers. For example, installation of a waste treatment plant at a leather tanning complex would provide care to not only the workers at the plant, but also millions of people who live around the river in which the untreated waste was dumped, putting at risk the health of millions.

We have seen how practice theory and Tronto's framework of care can be used to study and analyse problems with understanding sustainability in the leather industry. I brought these theories into practice when I conducted interviews with the experts and when I analysed the primary data. Below, I discuss my data collection and analysis methods.

## Methods

In this section, I describe the data collection and analysis methods I employed in this thesis. As this is a qualitative research, I used qualitative data collection and analysis methods as discussed below-

### Data collection methods

I used literature review and semi-structured interviews, as data collection methods. I discussed how I went about each of them below.

#### Literature review

Literature review on sustainability in the leather industry was carried out. I used Google scholar to find work done on sustainability aspects in the leather industry. I took the help of my previous course materials in order to find relevant articles on the theoretical framework I used for my thesis practice theory as well as Tronto's framework of Care. It was important to understand what research has already been done regarding sustainability in the leather industry and then try to find out the knowledge gap through a lens provided by practice theory. This thesis fills in the gap by identifying what sustainability meant for different stakeholders mentioned in the conceptual framework, and the order of importance given to different aspects of sustainability by various different actors in the leather industry.

#### Semi-structured interviews

Semi-structured interviews with important actors involved in the leather industry were conducted. I focussed on the actors in the Netherlands. As mentioned before, I referred to all the people I interviewed as experts following Heuts & Mol (2013). As I wanted to explore what sustainable leather was, I focussed on informants who are experts in their own field of activity and are part of the leather supply chain in one way or the other. But who was an expert on 'sustainable leather'? In the Netherlands, where I did my research, there were many. Figure 2 indicated some important stakeholders. The owner and employees of a social enterprise & a leading brand for leather products, marketers (leather industry- sustainability & CSR), technicians (chemical companies), consumers, and the NGOs were all considered experts for this thesis. That I called all interviewees 'experts' suggested that this research was not invested in differentiating between groups of people, those in the know, experts, and those

without specialised insights, so called lay people (Heuts & Mol, 2013). In total, I had 12 in-depth interviews. The interviews were conducted in English and were recorded. I approached the experts through the contact I already had with the social enterprise, and sent them an email regarding the purpose and details about the thesis I worked on.

### **Data analysis methods**

I transcribed the interviews fully before coding them. For a qualitative researcher, there were not many systems available for pre-coding. I made use of the software ATLAS ti for identifying and labelling, & coding data that I collected.

### **Registers/Codes of valuing**

I did literature review on sustainability in the leather industry and derived valuable inputs gained by the information I came across. The analysis was structured in a way that from the given responses the identified current sustainability practices were grouped together in different registers, as done by Heuts & Mol (2013) in their article on 'What is a good Tomato'. They held interviews with tomato experts, which involved developers, growers, sellers, processors, professional cooks and consumers in the Netherlands and analysed the transcriptions carefully. They then grouped the informant's concerns regarding tomatoes into different clusters and differentiated between five different registers of valuing. In this thesis, I do something similar but this time with sustainable leather instead of good tomato. I grouped the information I collected through interviews into different registers to analyse it in a better way. I made registers based on different types of sustainability: environmental, ethical & social and economic and other physical attributes of leather like naturalness, temporality & durability of the leather. Then the results of the different respondents were grouped in these registers. The discussion of these registers and their importance is based on the literature review I carried out and the results I got from the different actors I talked to.

### **Limitations**

One limitation of collecting data for my thesis was that the responses from various groups of stakeholders were not fully representative. I interviewed few important actors and asked them questions. A combination of quantitative along with qualitative approach could have given a better overall analysis. I was not able to contact some of the stakeholders due to availability issues. Also, it could be possible that some interviewees were apparently not being very honest about their opinions and some did not want to be interviewed at all. Also, as I talked mostly to Dutch people, it was difficult to understand nuances. It was difficult to convey messages properly and directly as even I'm a non-native speaker of English.

Coming to the content wise shortcomings of the research, I was not able to interview the stakeholders in the countries where the leather is actually produced- the people who provide the raw materials (hides), the tannery owners and workers, the local NGOs, the monitoring bodies of the factories, central leather research institutes, etc. For further research, it is

important to include the views of this side of the supply chain as well to get a holistic view of the meaning of sustainability, and also make comparisons to previous research.

### **Ethical concerns**

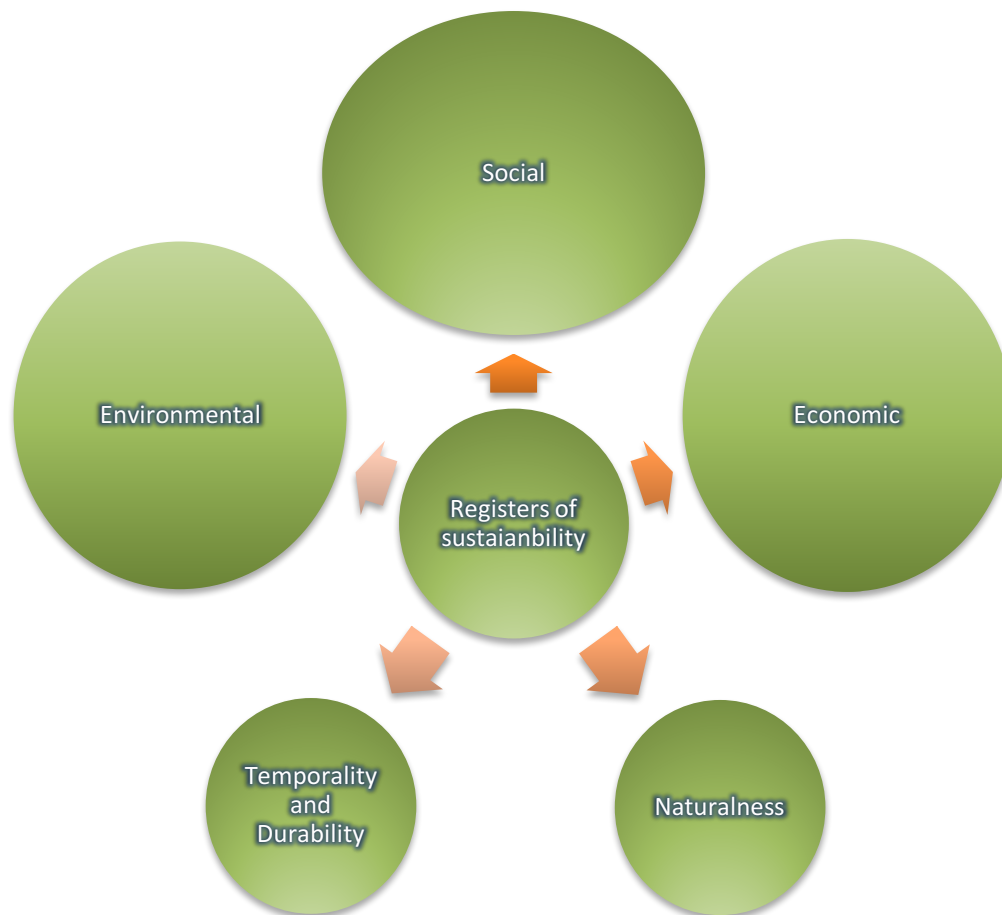
The data gathered through the interview was used only for academic purpose and the names of the interviewees were kept anonymous. Moreover, I told the interviewees that I would give back by sharing the results of my thesis in the form of a summary or would send them my thesis if they were willing to read all of it.

### **Data Analysis**

#### **Registers**

I organized the data I collected through the interviews into five different registers. I used the concept of registers used by the authors of the article 'What is a good tomato' (Heuts & Mol, 2013) and used it in my thesis on sustainable leather. A register is a classification based on different qualities or aspects of the product being talked about. They used five registers as well. They had to do with money, handling, historical time, what it is to be natural and sensual appeal respectively. The different kinds of tomatoes were classified based on senses, size, and feel, among other categories of classification. In the case of sustainable leather, they could vary based on the importance different stakeholders put on each of these.

The three broad and most talked about registers that came out of the interviews, were namely 1) economic, 2) social and 3) environmental. Furthermore, other important registers that were mentioned by different stakeholders were 4) temporality & durability, and 5) naturalness. These registers are presented in figure 4 below. The different sizes give a rough idea about the emphasis put on each particular register by the different stakeholders. We see that the three most talked about and important registers were social, economic and environmental ones.



**Figure 4- Registers of Sustainability for leather**

Furthermore, I show how these five registers were discussed by the different experts with help of important points mentioned by them. It will help me answer the first sub research question- what meaning does sustainable leather have for the different actors. After we discuss the different registers one by one, we will move to the 2<sup>nd</sup> research question- What do the different stakeholders do in order to make leather sustainable? We will make use of the Tronto's framework of Care and Practice Theory to answer the two research questions.

I would like to start with discussing the most often discussed register- which is the social sustainability. After that I move on to discuss the economic sustainability, followed by environmental sustainability, temporality and durability and finally naturalness before synthesizing all of them together.

## Social

Social sustainability was a very important register that came out of the interviews as almost every expert put emphasis on it. For example, the owner of the leather bag social enterprise talked about how social sustainability is on top of the firm's priorities:

From the impact research, we got to know how much workers earn or if their children go to school. We are investing in education of children of workers in the tanneries. We allocate one percent of turnover [around a million euros now] for these activities. And the amount increases every year as revenues increase.

They called themselves a social enterprise and worked on improving the working conditions at factories they took their leather from. Moreover, they also collaborated with more organizations from India and donated to ensure that sex workers who were forced into the world of prostitution were rescued, rehabilitated and provided with jobs at the factories where their products were made. The working conditions at the factories were satisfactory and the workers got free lunch as well as health benefits in form of insurances and leave allowances. It is important to note that social enterprises see it as their duty to care for this register, more than mainstream brands of leather products, who usually do not consider it very important to focus on improving on this front. Moreover, this social enterprise was also concerned about animal welfare. The owner of the social enterprise considered transparency in the raw leather supply chain important:

Transparency in the origin of raw material is an important factor which can determine the sustainability of leather too. It is important to know if the animals are mistreated or not.

Transparency in the raw leather supply chain meant knowing where the raw leather is coming from. It involved transparency in the transport of cattle, and the conditions of slaughterhouses. For the owner of this social enterprise, mistreatment of animals remained a big issue which needed to be tackled. By mistreatment, she meant the conditions in which they were transported - if they had enough space to move around in trucks as well as slaughterhouse facilities. Earlier, the leather industry would hide behind the meat and dairy industry and dismiss the animal welfare concerns by saying that they use a by-product of the meat and dairy industry. With more and more demand for transparency in the leather industry, many brands, and especially the social enterprises started to put focus on the earlier stages of the supply chain of raw leather- starting from the place where the cattle are raised, up until the slaughter houses. Lot of brands who have social sustainability on their forefront now ask questions about the place and the conditions where the cattle is raised before getting associated with a producer of tanned leather in any emerging economy.

Moreover, both chemical companies put focus on social sustainability by emphasizing on the need to care for tannery workers. They were mainly concerned about the safety of workers, the wages they get paid and if their children got good education. Both were doing their share of social sustainability activities, in the form of providing education and training activities for workers about handling dangerous chemicals. A leader of Sustainability and Innovation of one chemical company put focus on safety of workers:

I think leather is sustainable when you're taking care of the whole process, so it is not only about the technical matters, or about the method of leather production. But for me it is also matters like safety for instance - protection of workers. It is wider thing. For me it is more the social matter - of making your leather product or safe use of chemicals. Dealing with the people working for you in a decent manner-fair payment and their development is very important.

For this leader of sustainability at this chemical company, it was important that safety of workers remained an integral part of the whole process. By whole process, he referred to the time at which the raw hides were obtained up until the finished product was ready for shipping. He put special focus on the part where the workers at tanneries had to deal with harmful chemicals. He expressed the importance of educating the workers to use these chemicals in a safe and responsible manner. According to him, social sustainability could only be achieved when tannery owners, fashion brands and chemical companies took collective responsibility to make the tanneries as safe as possible. Before we discussed how Heuts & Mol (2013) argued that in the 20<sup>th</sup> century, care was other to technology. Care had to do with warmth and love while technology, by contrast, was cold and rational. Caring practices now have included technologies and the actions practiced by the chemical company is a prime example of the same.

Moreover, consumers too expressed their concern about safety of workers at tanning factories. A student at Wageningen University who had a Leather handbag from a known and expensive brand said-

I think sustainability is not only because of buying a bag. If I will buy a bag right now I will think about where the bag came from and other things like if it supports the labour there. That is more important than debating about the kind of leather used to make the bag.

This consumer was concerned about the conditions at the factories where the bag was made - first the tanneries where the raw leather is processed and converted into finished leather and second at the tailor factories where the bags and other products were stitched and finished. She was concerned about the safety of workers as well as issues like child labour and fair wages. The two NGOs I interviewed were concerned not only about the conditions of workers in leather factories, but also about the treatment of cattle. We already saw that the social enterprise put focus on this aspect earlier. The NGOs too had similar thoughts about it as we would be seeing from their quotes below. Furthermore, they were already taking steps to spread awareness about these issues. An employee from a social-economic NGO I talked to again put emphasis on animal welfare issues and how the leather industry tried to separate itself from this issue. He said:

The leather sector tends to say that we're using an end, waste product of the meat industry so we're not to blame for the phase before. I think to a certain extent it is right - it is a by-product. But they can't avoid the earlier stage if they want to say their product is overall sustainable.

Social sustainability did not necessarily include just the welfare of workers, but also animal welfare issues. NGOs as well as the social enterprise put special focus on this part in their interviews. Caring, as we discussed before, has been a practice which indicates efforts that are ongoing, adaptive, tinkering and open ended (Heuts & Mol, 2013). Efforts at being open ended implies that caring also included non-humans- cattle in this case. We saw above how the employee from this NGO refuses to call a product overall sustainable unless animal welfare was taken care of.

In order to understand why the NGO employee thinks that it is now becoming difficult to avoid the earlier stages leather production, is because the commodity in question- leather- is being defetishized with increasing concerns regarding sustainability issues in this industry.

It is perhaps a nice idea here to introduce the term commodity fetishism by Karl Marx. Marx said that commodity fetishism is the tendency of people to see the product of their labour in terms of relationships between things, rather than social relationships between people. (Hudson & Hudson, 2003) In other words, people always view the commodity only in terms of the characteristics of the final product while the process through which it was created remains obscured and, therefore, unconsidered. This has crucial implications for our collective ability to see and address the ongoing processes of social and environmental destruction under capitalism. (Hudson & Hudson, 2003) It is usually the actors in the industry, for example the leather bag brands, who present the bag in such a way that people find it very tough to relate it to the rigorous procedures the raw leather from the animal goes through before being presented in such a beautiful way. However, in recent times, we see more of these brands trying to highlight their corporate social responsibility activities in order to maintain their position in the booming industry, and a plethora of social enterprises springing up, who boldly talk about as well as inform their consumer more about the whole process of production of the leather products they sell. According to the Leather council (2014), social sustainability involved complying to product safety regulations, mainly on the chemical side, and to health and safety as well as employment regulations. This included abolition of child labour, respecting worker rights, and commitment to animal welfare practices. The discussion of the primary data- the interviews I carried out put focus on the social sustainability in a very similar manner. They also talked about conditions of labour and commitment to animal welfare practices. Let us now move to the second register- economic sustainability and see what various other actors had to say about this register.

## Economic

Economic sustainability emerged to be an important register and was a recurring topic with many of the experts I interviewed. The register Heuts & Mol (2013) used in their article on 'What is a good tomato' is a monetary register, that has to do with financial costs. However, in that research, the focus was on 'good' tomato. I believe that when talking about 'sustainable' leather, economic sustainability is a more relevant register to talk about. Below I would discuss some of the quotes from the interviews in order to put emphasis on the importance of this register. By economic sustainability, we mean the ability of the industry on a whole to support a defined level of economic production indefinitely, or for longer periods of time. Here we discuss the different developments of methods of leather tanning in order to reduce the economic costs for each stakeholder in the supply chain while continuing to invest in sustainable methods of leather production. So, we see how economic sustainability is different from a monetary register, the latter concerned only about the price of the product. Let us first see what the chemical companies had to say about economic sustainability. One chemical company's executive put forward the reason why they're able to invest in economic sustainability activities mainly in the form of research and development of new products-

It is different because we are family business with a long history. That means also that we're not stock listed. We're 100% privately owned. That means we're able to look to the future in a different way than many of our competitors can do. We're really able to invest in actions which may not be beneficial in the next year or the year after but it might be necessary and be successful in around 10-20 years from now.



The executive says that the main incentive for their company to focus on economic sustainability is its history of being a family business which has genuine interest into looking at looking at the future in ways different from its competitors. By being different he meant that investment and research in new, more economic sustainable methods of chemical production for the leather tanning processes.

Another executive, again from a chemical company talks about the reason people need to pay more for some products compared to others-

This need for transparency and the need for consumers to ask questions is important. That would also mean for instance, that a consumer should be told the story - why for bag A he must pay 100 euros and why for bag B he must pay 120 euros. If he knows the story he would be in a better situation to make a choice.

He was more focussed on giving a reason to the consumer why one should pay more for a certain leather article. Transparency for him meant that the consumer should know all the reasons for paying more for a particular product. He related the discussion to sustainability by indicating why one bag costs more than the other in the example he stated. According to him, one bag often costed more than the other because it is produced by labourers who had better wages and thus better living conditions.

Another leather expert at this chemical company also talked about economic sustainability of leather products by stating that it is a by-product of the meat industry. He said:

First, it is the sense of durability compared to other non-leather items. One doesn't have to replace it every year. Secondly, of course it is a by-product of the meat industry which must be made use of, so people make money from it. Making use of it is going to happen anyway. We depend on the meat industry. We do not control the production of cattle. Cattle is not produced for the skin- except in very rare circumstances.

He put focus on the durability of leather items and how it could be economically sustainable if consumers invested in durable leather goods than cheaper ones which must be replaced more often. The leather item is more sustainable economically if the consumer did not have to replace it very often. This also is really close to another register- temporality, which will be discussed later separately. Moreover, he points to leather being economically sustainable as it was a by-product of the meat industry and no cattle was killed for the leather, but for the meat and dairy industry. It was using a resource which would last as long as the meat and dairy industry kept growing continuously.

On the other hand, the consumers too thought the same way about durability and its relation to sustainability. Most consumers I talked to put a lot of emphasis on buying a durable leather good even if they would have to pay more for it. One consumer said "I was trying to look for quality and durability. In Mexico, at least those kinds of bags which can last long are mainly designer bags and I got interested in this brand called Coach." This consumer was on the lookout for a bag which lasted longer so that she did not have to buy another bag too soon. This way one could ensure that the bag or any other leather good one buys was economically sustainable.

The NGOs and shop owners did not put a lot of focus on economic sustainability. This can be because for an NGO it is more important to focus on social and environmental issues more than the economic part. It doesn't always mean that they do not care about it but it is just not at the top of their priority list. Similarly, the social enterprise was more focussed on social sustainability and chose to talk about social issues more.

Economic sustainability, according to Leather Council (2014), involved being committed to fair trade practices, traceability of raw hides and skins- that is the origins of the raw hide/skin and the condition of slaughtering facilities, and doing all this in the most economical way possible. All this implied being transparent in the leather production process right from the start till the end, and still not being a burden on the consumer's or any other stakeholder's pocket in monetary terms. Primary data collected in the form of interviews with stakeholders further strengthens this definition. Investment in the right technology to develop chemicals can mean economically sustainable leather products in the long run. In the next section, I would discuss the register environmental sustainability and highlight what came up in the interviews regarding this register.

## Environmental

Environment was discussed most in relation to sustainability. It was one of the top priorities for the NGOs I talked to. An official from a known NGO talked about the work done by their organization in India:

If you look in Kanpur, India, the water treatment plant is made by the Dutch, the CETP (Common Effluent Treatment Plant). What we see in Kanpur is that it is possible to reduce the amount of water used, it is possible to have less pollutants in the water. That is also needed to make the central effluent plant work effectively. There is new technology, a prominent Dutch chemical company has new technology that can also be included.

The NGO employee put emphasis on environment, particularly pollution in the Ganges river in the Kanpur region of India. He talked about the pollution of the river in different states of India and stated water pollution as one of the biggest challenges in the industry-

In Kanpur for example, environmental issues are more urgent and need to be tackled (pollution of Ganges) as compared to Chennai where it is a lot better organized. Overall, the two most important ones are water pollution and labour circumstances.

The NGO official talks about how water pollution issues remained a big problem in the northern leather producing regions of India, which did not take enough steps to treat waste before dumping the waste water into the river Ganges. The NGOs I talked to all talked about the big challenge the industry still faces- of the central effluent treatment plants working under capacity resulting in problems for the populations dependent on the resources provided by the main river. The social enterprise expressed mainly talked about the environmental issues in relation to the method of tanning. They were still in the process of carrying out more research in order to get to know the best way of leather tanning-

Initially we developed the eco leather with Patrick, owner of the tannery we collaborate with in India. He of course did it with Hans Both from Fair Trade Original. Patrick produced the veg tanned leather for us which was tested by STS, an independent authorizing body. That was the first and only leather we worked with for four years. Since last year we also started working with Italian veg tanned leather. That also has to do with Patrick not being able to deliver. There are questions about water use and all as you know. And we're constantly working on finding an answer to it.

The social enterprise talks about the struggles they have faced in order to source good quality vegetable tanned hides- and also to know the environmental impact of using such leather, which uses an extensive amount of resources- mainly manpower and water. As we discussed before in literature, many of the tanning methods are still not fully understood. Worst Polluted (2011) states that it is still not clear which tanning methods are more sustainable. Because of these doubts, there continues to be varied interpretations of the way to go in the direction of environmental sustainability. The consumers I talked to on the other hand were not too much informed about the environmental damage. This was mainly because they trusted the companies to do their bit to ensure that the products were made in an environmentally friendly way if they invested in a well-known brand. They talked about its existence and are more concerned about the social aspect. Now, I would talk about another important register which popped up from the interviews- Temporality and durability. Temporality and durability is a register which is very close to the

### Temporality and durability

According to the experts, sustainable leather has a relation with the time. Temporality refers to the time it takes for the hides to be processed into finished leather. Durability meant the lasting time of the finished leather - how long could one use it before it got replaced. There are different methods of producing leather, which relate to the register Temporality- as the main methods have different time frames. The two main methods of tanning which have been used were chrome and vegetable tanning. Vegetable tanning is the age old, time consuming and more natural method of tanning leather. It is known as the ancient leather tanning method which can sometime take months. Moreover, it often takes more time, which means more water consumption. On the other hand, chromium tanning is a more recent, and much faster method of producing leather. It uses chromium as a tanning agent which accelerates the process and leather can be tanned in just a few days' time, therefore using less water and other resources. However, if not managed and treated well, chromium, being a heavy metal, could prove to be life-threatening for not only the workers in the factories but also the people dependent on the river Ganges, where all the chemicals are dumped without being treated in a proper way. In my interviews, this seemed to be a cause of concern, for almost every stakeholder and a recurring topic of discussion, especially for chemical companies and the NGOs. Temporality and durability are not very different from the economic sustainability register. The only difference being that the former discusses more about the method and time taken for the two methods of leather tanning, while economic sustainability deals with the sustainability aspect of all the components in the supply chain- ranging right from sourcing the hides, to research and development of new chemicals for leather tanning, and then the transportation/shipping of the finished leather goods as well. (Leather Council, 2014)

Some quotes on the leather tanning methods are stated below.

An expert from an NGO however, had different ideas altogether regarding this debate of ecological/sustainable leather:

Veg tanning is natural. And of course, natural material is easier to sell than something with hard chemicals like chromium. But also, the other way of looking at it is- the real big problems are not with veg tanning, the real big problems are with chromium tanning, even though it takes more resources; so, we put use of resources above harm to environment and people? If you do not have good waste management, the problems with chromium tanning are bigger than problems with vegetable tanning, because of chromium 6, which is a dangerous chemical, which really causes a lot of water pollution and makes the rivers poisonous. It is a bigger problem than having chestnut in water.

This expert from a Dutch NGO had the idea that vegetable tanning was more sustainable. He put the safety and health of people as top priority. He recognized that the battle of vegetable vs chromium was that of health and safety vs resources and had the opinion that people should always be first. He also added that the current way of waste management allowed harmful chemicals like chromium 6 get into river streams, thereby polluting the rivers and damaging the environment as well as putting on risk the health of people dependent on water resources.

In contrast, the leader of Sustainability, Chemical company defends tanning with chrome and gives counter arguments for the same-

Some people are saying that the tanning with chrome is bad would take in mind certain things- as the leather article moves up the leather chain and there is use of vegetable tanning extracts - sounds nice. Vegetable - it must be very good. But how does it deal with the water treatment? In many cases, also there is more water requirement. These are the kinds of things people don't often realize.

This employee at a chemical company did not seem very happy with the projection of vegetable tanning as more sustainable and efficient. He was determined that vegetable tanning in the long run, and on a large scale required more resources (water) and therefore couldn't be labelled as a more sustainable way of tanning leather. Here we see a link to the environmental register. The question that arises there is that is it better to compromise on water resources in order to ensure that harmful chemicals are not being used, or use less water intensive chemicals and treat them in a better way so that they don't harm the water resources.

Another quote on temporality, this time from an expert of another chemical company:

The general feeling is that veg tanned leather is more sustainable than chromium tanned leather. But there are aspects of chromium treated leather- shorter process - that it can be done within one or two days whereas veg tan can take months. Veg tanning on a big scale is not possible either. Sustainability is a relative term.

This expert stated that sustainability is always a relative term. Product A can be termed more sustainable only when compared to another object, say product B. It is difficult to say A is more sustainable before comparing to B or C. Here, the expert stated the benefits of

chromium tanning and tried to bust the myth that vegetable tanning is a more sustainable form of tanning leather.

Let us have a look at some more quotes by the experts involving the registers temporality and durability. The CEO of the only social enterprise I interviewed said:

We do not even communicate the term ‘eco-leather’ anymore. We removed it from our website. But we still have it on our bags. It is right that it can backfire. But to give the consumer the choice that he can either go for the ecological one or normal one is also something. Also, it is our definition of eco-leather, so you can get away with it.

Concerned with the various definitions and meanings regarding vegetable tanning, this social enterprise has limited its use of the word ‘eco’-leather. ‘Eco’ meant ecological and was used particularly for vegetable tanned leather. The leather produced using vegetable tanning was considered previously more sustainable by not only this social enterprise, but also by many other stakeholders in this industry, including many famous brands. This was because when this method was introduced on a small scale, it indeed was beneficial in limiting the toxic waste. However, on a big scale, it is still debatable if that is the case. This expert however recognized that this label is debatable and therefore decided to not use this term frequently. They emphasized on the need to do further research and help make this definition clearer not only for them, but for everyone in the industry before using it. This would ensure that there is always a standard label which helps the consumer decide and evaluate the sustainability of a leather product.

The consumers did not talk a lot about it as they were not aware of different leather tanning methods in the first place. They discuss the durability register in detail and don’t comment at all about the temporality part, which deals with the leather tanning process. The durability however, refers to how long the leather product would last in the consumer’s hand. This register is indeed a really important one because it talks about the technical aspects of leather tanning. It is very difficult to reach a conclusion about the best way of leather tanning as the stakeholders themselves are divided on the issue. I will now move forward to discuss a register which not a lot of stakeholders talked about, which is naturalness.

## Naturalness

Naturalness refers to how the leather feels in the hands. It is mostly considered as an important tool to make decisions by consumers. One consumer quotes-

‘It is just a handy bag, I can put everything I need it in. I just like it because of its outlook. I did not consider any sustainable things about the bag.’

This particular consumer is very direct to state that she bought the bag because of its ‘outlook’. There is another reason why naturalness is an important register for consideration. the marketplace, with the exception of online stores, consumers are usually concerned about how the leather/other clothes feel in their hands. They are always looking at it, feeling it, smelling it. Therefore, the consumer tries to involve himself/herself in as many sensual ways as possible in order to make a decision. Another consumer talks about how it is unrealistic to combine naturalness with other registers-

Consumers can be very tough, as they want it all. Like I want it to be good for the people, good for the environment, should feel good in my hands and also good for my pocket. I think that is too idealistic and often not possible.

It is important for this consumer that the leather ‘feels good’ in her hands and also not compromises on the price. She wants the leather to be as natural as possible, that it uses the least amount of chemicals, therefore being good for the environment, and ideally should be biodegradable. Director of sustainability at a leading chemical company adds-

The consumer really values veg tanned leather in many ways- in the way it looks, in the way it is made, the way it feels. But it can only be supplied in small quantities because of the inefficient way of current production. If you want to produce on a larger scale then you have to go for a more automated way (chrome or other synthetic based tanning methods (easy white tan) I don’t believe in eco leather as a term. We try not to use these terminologies. Green leather, eco leather- what does that mean? Still got chemicals in it, still use a lot of water- maybe a more natural way because of the time it takes. But eco leather I think is a misnomer. It is not fair to call something eco leather, and something not eco leather. Eco leather is raw hide- starts to smell in 3 days- that is eco leather.

The leader of sustainability at this chemical company believes there is no such term as ‘natural’ leather. Natural, biodegradable/ ecological leather, according to him is raw hide, which starts to smell in 3 days. The moment there are chemicals being added to the leather, in order to make it last longer, it is no longer natural. Does this mean that there is no such thing as natural leather? Of course not. Naturalness in this sense is also a relative term- it is a battle of the amount of chemicals and other resources like water and time that a particular method of producing leather uses before it is ready as a finished leather product. As the registers were formulated after all the interviews with the stakeholders, they were not given any direction to talk about a particular theme and were free to choose what aspect of sustainability they want to talk about. Naturalness was the register which was talked about the least and the NGOs did not talk about it at all in the interview. Let us now move ahead to try and synthesize all these different registers in the next section.

## Discussion

We saw many different registers emerge, with the triple bottom line: people, planet and profit being the first ones and the most common ones discussed by the stakeholders. The order of these three is debatable but will become clearer in this section as well as the next sections to follow. Apart from these, other different registers that emerged were temporality and durability and naturalness. If more consumers were involved then we would have had many more registers springing up, like sensuality discussed in Heuts and Mol (2013). However, analysis of the registers we had finally showed the different points of view of stakeholders on each one of them. Each stakeholder had its own list of importance for the register. For example, some stakeholders did not even mention a register which another considered the most important. One of the debates in the discussion with stakeholders was the one regarding vegetable tanning vs chromium tanning. Even after intense discussions, literature review and thorough analysis it remains difficult to say which one is more sustainable. Chromium tanning is best for developed countries which have efficient tanneries

which have excellent waste management systems. However, the places and countries leather is produced in, it is very difficult to have such a system in place as they're relatively poor and cannot afford these technologies as also discussed by Kanaraj (2006) However, with time, we have seen development of such tanneries and many top tanneries in these countries have gone on to have efficient and properly functioning waste management systems. Moreover, I would like to discuss the meaning of sustainability for different stakeholders and the registers they talked about by answering the first sub research question in the next section.

What is sustainable leather for different stakeholders?

From the classification and analysis of different registers that came up through the 12 semi-structured interviews, I would like to answer the research question 'What is sustainable leather for different stakeholders in the supply chain of leather?' As we saw through the different range of quotes from various stakeholders, we notice that each stakeholder put a different level of importance on each register of sustainability. In order to answer this research question, we would make use of the concluding quotes by the stakeholders when they were asked which aspects of sustainability do they consider the most important in order for leather to be called sustainable. The NGOs chose social sustainability as their top priority in order to solve sustainability issues in the industry, and it was closely followed by environmental sustainability as we can also see in a concluding sentence from one of the NGOs-

Each process is important in the whole supply chain. But if I had to pick one I would first pick cattle rearing- greenhouse gas emissions, loss of biodiversity, animal suffering. And all these tanneries discarding waste water full of chemicals into the rivers. Wastewater management is one of the most urgent problem in the industry. We should be encouraging of the fact that alternatives to real leather are growing- like pineapple leather, vegan leather, synthetic leather is already there and getting better.

The second NGO, however said the importance to be put on different registers depended a lot on which region we're talking about and the level of urgency required for making improvements in each of the registers-

It really depends which region you're talking about. For example, in India itself we have different clusters and regions which are all very different. In Kanpur for example environmental issues are more urgent and need to be tackled (pollution of Ganges) as compared to Chennai where it is a lot better organized. Overall, the two most important ones are water pollution and labour circumstances.

Here we see that the NGO employee talks about a specific region in India, and compares it to another leather tanning region in the same country. According to him, it really depends on the current status of the social and environmental issues in a particular region that should determine which of these two registers needs to be worked upon more. However, through the discussions I had with both of the NGOs, prioritizing work on social sustainability issues, followed by environmental issues makes leather sustainable.

For one chemical company I interviewed, understanding the sense of urgency to stay in the race is one of the most important issues when talking about sustainability in the leather industry. The employee of this company states-

I think the most important thing is- if you don't understand why you need to make some changes, if you don't understand the implications if you don't make these changes- and what's the incentive. And I always look at this from different sides- for some people the incentive is that if I don't change my customer would not buy from me anymore. For others, it would be- if I don't change, my permit would be taken away and I can no longer produce, and the third person would say that I want to do it from the heart. But I think the group who want to do it from the heart is a very tiny group.

The change this employee talks about is a bit too general- but mostly refers to the social conditions of the workers in the tanneries- as most of the talk with this stakeholder revolved around the safety of workers, when working with dangerous chemicals. The second big chemical company responsible for transporting a considerable share of chemicals for the leather tanning process believes that water management and treatment issues are the most urgent problems that need to be solved-

The consumption and treatment of water is the most important aspect in my opinion. This is where more efforts need to be put in the future. The under capacity in the treatment facilities available. Tanneries are sending more wastewater than can be treated to the Central Effluent Treatment plants. And the consumption of water by the tanneries before that is also a significant issue for agriculture.

According to this employee, a lot of sustainability related problems can be solved if the water related issues are taken care of, therefore making environmental sustainability the top register for him. We see that economic sustainability and environmental sustainability are the big two registers for the chemical companies that were part of this research.

For the only social enterprise that was interviewed, they made it very clear which aspects of sustainability they find the most important to be tackled in the near future-

'In order of importance, the first point is durability, second is the tanning process, so more the technical (pre-tanning and after tanning) and third is the safety of workers.'

The social enterprise was clear in stating its priorities. They stated that durability of the leather product is the most important as it will mean that it is used for a long time, which would delay someone to purchase a leather product again and again. They put the method of tanning at the second place in terms of importance, which is very understandable as their business focusses on the use of eco-leather (vegetable tanned leather) which is supposed to be more sustainable and have a natural feel to it. The register naturalness was very important for them. The safety of workers- social sustainability register followed at the third place.

Last but not the least, the consumers, inarguably one of the most important stakeholders, were concerned about different aspects of sustainability in the leather industry. The most important ones to emerge from the four customers I interviewed was the register social and durability. Below are some quotes where the customers emphasize on these registers when summarizing their opinion about 'What are the main aspects which make leather sustainable in their opinion'-



‘I really don’t mind paying quite some money, even paying 200 euros for a bag which I know will last me for a long time- I already have couple of bags which I have had for almost 10 years and they’re in really good shape. I have really given rough use to those bags and they’re still in good shape. ‘

‘People should understand that buying a quality product will make it sustainable as you’re using less resources by delaying the purchase of a new bag. I’m curious about if recycling leather is an option. Also, making use of the leather fully is important. There should be minimum wastage of the products.’

I would focus the most on social sustainability. I believe the environmental and economic sustainability also depends on the social sustainability. The second important factor is the environmental sustainability and in the end the economic sustainability. If a bag affects the social factor, for example it has child labour involved then I would not buy it. And also, if it uses chemicals which are affecting the workers, then also I would never buy it.

We saw how some consumers tried to put focus on how long they’re able to use the product, and stating that they’re willing to pay a good price for a leather bag if they know it is going to last long. The last customer was more concerned by the social conditions in the factories where the leather is processed and stitched. We should keep in mind that we cannot conclude the same for all consumers, or all chemical companies or NGOs as our results and analysis are based on only a few of these stakeholders. Let us now move to discuss the Tronto’s framework of Care in relation to our primary data answer and then answer the 2<sup>nd</sup> research question-

What did the stakeholders do in order to make leather more sustainable?

From the interviews, I made connections to Tronto’s framework of care, which helped us answer the second research question. The five care phases were caring about, taking care of, care giving, care receiving and caring with. The last one was a synthesis of the first four phases. Let us take some examples to relate how and what different actors did or could have done to make leather sustainable to the Tronto’s framework of care.

### Tronto’s first phase- **Caring about**

The employees of the two chemical companies talked about the need for making tanneries a safer place, especially for the workers. One chemical company employee said-

I think leather is sustainable when you’re taking care about the whole process, so it is not only about the technical matters, that you’re producing leather with which method. But for me it is also matters like safety for instance- protect your workers. It is wider thing. For me it is more the social matter- of making your leather product or chemical- dealing with the people working for you in a decent manner- no discrimination, fair payment and development.

Here we see the focus on safety and protection of workers. The chemical company employee believes leather is sustainable only when we care about the whole process, with special emphasis on the care of workers. Moreover, an NGO too puts focus on how taking care of not

only humans, but also animals involved in the process, is an indispensable part of sustainability in the leather industry-

According to me, sustainability in the leather industry has to be a part of all the processes, ranging from the time you get the hides, and even before that- animal welfare issues to the recycling part- just like in a circular economy.

The NGO employee emphasized the importance of all the processes going on in order to get to the finished leather product- and mentioned animal welfare issue concerns which need to be recognized too in order to call the final product sustainable in all aspects.

The social enterprise on the other hand, placed the importance of the care of workers at the 3<sup>rd</sup> place. When asked about what things make leather sustainable, an employee said-

Transparency in the origin of raw material is an important factor which can determine the sustainability of leather too. It is important to know if the animals are mistreated or not. Also, it is important that the leather is made good use of and not a lot of it is wasted during production. So, in order of importance, the first point is durability, second is the tanning process, so more the technical (pre-tanning and after tanning) and third is the safety of workers.

Although the social enterprise stressed more on the importance of durability ahead and tanning process ahead of safety of workers, it is important to note that they spend 1 percent of their total profits each year for social sustainability activities, in the form of schooling for the workers of children and other supportive activities for the tannery and factory workers.

These examples help us understand the recognition of the need for care by different stakeholders. This is the phase of caring about. As Hargreaves (2011) pointed out, the main characteristic associated with this phase was attentiveness, and we see a link with what the stakeholders refer to. They mentioned that it was an important part to get attentive about conditions of workers in tanneries first before any action is taken.

### Tronto's second phase- **Taking Care of**

Almost all the stakeholders recognized their own responsibility to take care about various sustainability practices and there was no one who blamed the other for not realising a particular sustainability goal. I would like to use just one relevant quote which sums up the part of taking responsibility for stakeholders to identify their responsibilities. A chemical company employee told me-

I think the initiative you're taking to better understand what is sustainable leather is for also a part of catalysing because you're pushing us and also other players in this chain also to take responsibility and to talk about it.

There is a need for every actor in the supply chain to take responsibility, and play their parts well, in order to reach the larger goal. By catalysing, the company employee meant taking all kinds of initiatives, supporting all kinds of initiatives which would eventually mean dividing responsibilities. The main ethical quality involved according to Tronto (2013a) was responsibility and that's what each actor needs to take once he/she becomes attentive about

the problem, which was the first phase of the Framework of Care. This also includes for example this particular research itself. This master thesis itself is a part of the catalysing process as it starts with asking questions, and classifying what the different actors say about sustainability in the leather industry into different registers. Let's move on to discuss the next phase, which is inarguably the most important one- to carry out the care giving work.

### Tronto's third phase- **Care giving**

The next and one of the most important step involves the actual care giving. Heuts & Mol (2013) point out different activities stakeholders undertake in order to ensure that the tomato is cared for in at every stage- for example handling. Similarly, I asked stakeholders about different activities they undertake in order to care about sustainability issues in the leather industry. In the next sub section, I would like to discuss these activities which were discussed by the stakeholders in the interviews and finally move ahead to round off the care phase by (Tronto, 2013a). The different stakeholders were asked about their own initiatives and activities they undertook in order to try to be more sustainable in the ways they deal with leather. The chemical companies took initiatives to make working conditions safer. These initiatives involved informing workers about safe handling of chemicals and giving drills on using safety gloves, eyewear and masks in tanneries. The next step was care receiving where we saw the response of the workers- how they're reacting to the measures taken by the company and tannery owners. They reviewed the interviews with tannery owners and how they responded. In an earlier interview with the head of the sustainability department of a chemical company, he revealed how offering safety lessons to tannery owners again and again made them change their habits by finally start using safety equipment in tanneries when dealing with harmful chemicals. One of the chemical company employee sheds light on the activities undertaken by the company and their ambitions in the years to come-

We have a CSR ambition. We play a visible role in the leather value chain to make it largely sustainable by 2025. This is our CSR ambition and we focus there on three pillars- first is of safety and health. We want everybody in the supply chain to work safe and also ensure that the leather is safe. The other pillar is environmental footprint- we want to reduce that significantly. The third pillar we have is catalysing. By catalysing we mean taking all kinds of initiative, we support all kinds of initiatives and boosting the move- making the leather value chain more integrated. All three aspects are equally valued and being worked upon. We have a CSR board and in that board, we have the owner of the company, the CEO, different business managers to ensure that our ambitions are met.

Another chemical company talks about the steps it has taken in order to be more sustainable in their part of the supply chain-

The new STAHL eco products, making use of green chemistry. We have a green chemist who is working with us. You have the traditional chemistry and in the end, it is our customers who want to buy the product because of the finish, the colour, feel and smell. We have a team who work on new innovative material. That is also part of sustainability. I think from cow to see- there are ethical issues. In the chemical industry, the impact we have is with water, energy, hazardous waste. It is amazing already what we do.

This chemical company executive talks about the steps the company has in place in order to ensure a move towards sustainable years. It highlights its will to devote energy towards looking for new and innovative material to work with, which would may have the potential to decrease the carbon footprint of leather in future.

Moreover, an NGO talks about its own initiatives surrounding sustainability in the industry-

we started asking difficult questions to a lot of people, writing articles, getting media attention. And then initiated and started doing some projects- Tannery of the future is one of them. We initiated the sustainable leather awards. We tried to help fashion brands that are sourcing in India and other low-income countries, and there are lot of questions with lack of transparency. We tried to help them investigate the main issues.

This NGO highlights the importance of talking about issues, and trying to get media attention about it. Also, they played a big role in the project of the Tannery of the future self-assessment document which helped a lot of tannery owners realise the importance of changing for good- and adopting various sustainability initiatives of their own. One important thing to remember is that this project still needs to reach the poorer and smaller tanneries, which do not have enough money to be part of the Leather Working Group and continue to operate the way they did a decade ago.

The social enterprise took steps by funding and carrying out more research with respect to all aspects of sustainability- mainly environmental and social, and also contributed one percent of their total profits for the development and support of tannery workers in India. The consumers on the other hand I talked to, were more aware than average about the sustainability issues in the leather industry, and tried to do their bit by researching the brand before buying the product, looking for durable products, and keeping an eye on the company's corporate social responsibility activities in case they choose to buy a product from them. However, most consumers do not buy leather products this way as there is little to no information available in the market about the sustainability aspect of these products. We saw how different stakeholders mentioned their care giving activities.

There is one more phase- **care receiving**- which was not talked about or mentioned during the interviews. One problem that sprung up during the interviews was that these activities were often not in good alignment with each other. This phase can only be more elaborated upon once we carry out this kind of research by involving the stakeholders lower in the supply chain as well- the factory owners, workers, middlemen and the suppliers of the raw materials- the hides. This brings us to the synthesizing phase of care- caring with, which we discuss in the next and final section of Tronto's Framework of Care.

#### Tronto's final Phase of Care- **Caring with**

The final phase of Tronto's framework of care is caring with, where all the different stakeholders come together to ensure care for each other. A very good example of this is the leather working group which composed of the chemical companies, tannery owners and brands, who meet regularly to improve sustainability in the leather industry. I would take one god example of a collaboration that was talked about in the interviews. A chemical company executive explains how collaboration is important in the industry-

We collaborate Directly with the bigger tanneries, but on a small scale we use distributors and the associations- like the Central Leather Research Institute in India (CLRI). We work very closely with them. Also, in Brazil. Our distributors, who are also experts in leather usually handle the smaller tanneries, because we're not able to handle everything directly.

A lot of big companies in Netherlands now try hard to work closely with its associates, although more work needs to be done to reach the small tanneries (which are the most in number) in order to teach them how to work with those chemicals safely and also how to treat them in a way which doesn't cause environmental pollution. In the next section, I will conclude the results and discussion of my thesis. Tronto (2013a) states that caring with is the collective responsibility of citizens, and requires all members of society to be active. The ethical qualities involved were plurality, communication, trust and respect. It is important that all stakeholders could come together at a similar platform in order to engage in meaningful dialogue about sustainability issues. Hargreaves (2011) mentioned practices as assemblages of images (meanings, symbols), skills (forms of competence, procedures) and stuff (materials, technology) that were dynamically integrated by skilled practitioners through regular and repeated performance. In the leather industry, we can see this practice already taking place, as different stakeholders involved with these images (cattle, tanneries), skills (methods of leather production) and stuff (the final leather product) come together under one roof- the Leather Working Group, in order to share knowledge, and put their ideas about sustainability into practice. It is important that the Leather Working Group keeps adding more and more stakeholders as its members and encourage exchange of ideas, and that different stakeholders respect each other's concern for sustainability, and help each other out in order to accomplish goals. In the next section, I would move to conclude my findings and analysis in order to make the new ideas more concrete. Before the conclusion though, I will mention some shortcomings and limitations of my research.

## **Conclusion & recommendations**

In this thesis, I explored the meaning of sustainable leather for different stakeholders associated with the leather industry, namely the chemical companies, NGOs, a social enterprise selling sustainable leather goods, leather experts and consumers. I conducted 12 semi- structured interviews with these stakeholders. I interviewed five consumers, two NGOs, two chemical companies, two leather experts and one social enterprise selling sustainable leather goods. Sustainable leather has different meanings for every stakeholder I interviewed. Still, there were a lot of common points that each actor emphasized on. I organized these points into five registers, namely social, economic and environmental sustainability, temporality and durability, and naturalness. Furthermore, I analysed and discussed each of these registers in detail.

For the social enterprise, in order of importance, the first priority was the register durability, second was the tanning process, so the economic register and third was the social register (safety of workers). The actions they took in order to strengthen sustainability on this front was to invest in more research on finding out the pros and cons of eco (vegetable tanned) leather. For the chemical companies which were part of this research, the most important register was that of economic sustainability, which also reflected their interests. They continuously invest in research and development of new chemicals which use less resources and are easy to treat before being dumped as waste into river sources. It was

followed by environmental sustainability with water management and treatment problems being the most urgent problems that needed to be resolved. For the consumers, the most important register was durability- the longevity of the leather products, which according to them was the most important aspect making leather sustainable. All the consumers I talked to made sure that they invest in a well-known leather brand which sold long lasting leather products. The NGOs considered environmental sustainability the biggest challenge and hence the most important register where work needed to be done. One big NGO has set up various projects in leather tanning countries which would encourage sustainable use and effective treatment of waste water. The second register which the NGOs considered really important was of social sustainability. With the help of chemical companies, they developed a sustainability self-assessment form for leather producing tanneries in developing countries in order to monitor sustainability on social and environmental fronts.

There is no one meaning of sustainability in the leather industry. Each actor/stakeholder has different priorities for making leather more sustainable. For example, the NGOs have more focus on environmental and social sustainability. They were more concerned about the wellbeing and safety of workers in the leather tanneries and the pollution caused in the rivers due to the discharge of untreated harmful chemicals. On the other hand, economic sustainability was the top priority for the chemical companies. Their focus was more on being sustainable in a way that did not compromise much on profitability. They focussed on efficient, safe production and handling of chemicals that they exported to the tanneries in emerging economies like India and China. They invest continuously on research and development of new chemicals which are designed to be more sustainable. They also spend on the marketing of these in order to not compromise on the profitability part. The consumers were divided by their thoughts as some focussed more on the social sustainability while some placed durability as top priority. This meant that they wanted a leather product which was not very expensive and still did not compromise on social and environmental factors. One big cause of concern for consumers was child labour and forced labour. For the social enterprise too, the people came first when asked to put the three Ps in order in the triple bottom line approach. However, in the last part of the interview they put more focus on the method of leather tanning- which connected to durability and natural registers. Sustainability revolves around working on the registers that came out of the interviews. It is very important to work on the urgent needs first, which includes working on social and environmental sustainability. This means trying to eliminate child and forced labour, transferring technology from the west to the east about proper wastewater management, so that the rivers are not polluted by the discharge from tanneries as well as the textile producing factory. The meaning of fashion needs to change. People should know where their leather products are coming from.

Another important conclusion that arises from this thesis is that there's a huge misconception regarding the exact meaning of sustainability, especially regarding the method of production of leather. People who I interviewed, particularly the chemical companies, the social enterprise, the NGOs and the leather experts had varying and often contrasting opinions about which method of leather production is more sustainable. Most of them however stated in the end phase of the interviews that the social and environmental sustainability is way more important than debating about temporality and the method of production. Previous research also showed that there is a lot of uncertainty involved while stating which method of leather production is better- the chromium tanning (more dangerous chemical but sustainable if waste management is good) or vegetable tanning (less chemicals but time consuming).

For the future, it is very important that different stakeholders involved in not only the leather industry, but the whole fashion and textile industry collaborate on the issue of sustainability, share ideas regularly and help to make the world a better place for the unprivileged. This would also be the ideal application of the practice theory and it would also realize the definition of Social practice theory. Social practice Theory decentred individuals from analyses, and instead focusses on the social and collective organization of practices. The leather working group is one such ideal collective organization. However, it needs to function in a better way and all actors need to take initiatives, motivate each other and have more regular meetings. Ideas discussed in the meetings need to be put into practice as soon as possible and a responsible authority (the board of the LWG) must make sure that the planned actions are carried out in quick time, or at least interest is shown in initiating sustainable activities associated with the industry. If these plans are put into action then we can ensure that there is more transparency in the leather industry. Another way of reaching higher levels of transparency is through assigning more responsibility to the various stakeholders by a central authority. The central authority must be the Leather Working Group and people who are in the board must be a mix of all the different stakeholders, ranging from chemical companies to NGOs, to the brands. With good intentions and proper willingness, it is possible to make the leather industry more sustainable.

On the basis of the results and conclusion of my research on sustainable leather, I came up with some recommendations. First, I believe that for future research, there is a need for making concrete action points based on different registers and their importance for various stakeholders. Also, including a larger variety of stakeholders, especially in the part of supply chain in the country where the leather is produced- local NGOs, governments, factory workers, etc. will bring out more registers. Discussion of these registers and their meaning for each stakeholder at a platform like the Leather Working Group would help devise concrete action plans in the direction of making improvements on the sustainability front. If we take a particular example- like the case of leather tanning in India- including the stakeholders like the factory owners, workers, inspection officers, middlemen, suppliers of raw hides, local NGOs, the Central Leather Research Institute, local residents would be a big step towards catalysing and making all the diverse voices heard in order to first get to know the problems better before presenting solutions to the sustainability issues. There needs to get more and more smaller tanneries set and achieve small sustainability goals- by first helping them understand the problems they need to work on. Collective initiatives by different stakeholders to get sustainability self-evaluation documents filled (like the Tannery of the Future document) need to be taken. This will help understand the current needs and problems in much more detail. Also, brands need to make sure that they're working with leather factories which have valid accreditations and help those who don't have to achieve it. The Leather working groups needs to sponsor specific research projects like in the area of Life cycle analysis of a particular leather producing region in order to know the specific problems to be tackled. There is need for more research in the area of sustainability in the leather industry and there needs to be more investigations made to understand the urgent needs of improving sustainability issues in particular regions where the leather processing takes place. Although in my thesis, I highlighted quite some issues regarding various areas of sustainability that need improvement, it is important to realize that there has been work done, in the form of initiatives by many stakeholders. We should not forget that we have come far, although there is still a long way to go. Whatever improvement one strives for- do you look what is not there yet or what improvement one has made? If one doesn't look at the improvement and only at what one hasn't achieved yet, it is easy to give up.

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## Appendices

### Semi-structured Interview for experts

#### Dear Sir/madam,

This interview is part of an academic research project carried out as part of a Master's degree in Consumer Studies at Wageningen University, the Netherlands. The aim of the study is to have a deeper insight into what sustainable leather is and how sustainability is practiced by different actors in the leather industry. What you share in the interview is used purely for the academic purpose. I kindly ask you for answering the questions I will ask.

#### Confidentiality

Participation is completely voluntary and this research projects guarantees respondent confidentiality. I would like to tape-record the interview. The results of this research will be processed anonymously.

#### Content

This interview contains 4 sections that each consists of several questions. Personal profile/company profile, sustainability practices and the learning process are included. *Thank you in advance for your willingness to participate in this interview.*

#### **I. Respondent Personal Profile**

1. Age group    18-25  26-35  36-45  46-55  >56
2. Gender:    Male  Female
3. Education Level: High School  Diploma  Degree  Masters  Above
4. Position in the company: \_\_\_\_\_
5. For how many years have you been working in this company/leather industry?  
1-5 years  6-10 years  11-15 years  above 15 years

#### **II. Company Profile**

6. The ownership status of the company is:  
Sole standing enterprise   
Subsidiary company   
Share Company   
Family business
7. How long has your company operated in the leather industry?  
1-5 years  6-10 years  11-15 years  16-20 years  above 20 years
8. Which products are produced in your company?
9. For which market is your product supplied?  
Domestic market only  Export market  Both Domestic & Export Market
10. How many employees does your company has?

#### **III. Company Sustainability Practices**

11. *Could you tell me what makes leather sustainable from your perspective?*

.....  
.....  
.....

12. *How would you describe the sustainability practices of your company? /How are sustainability practices organized in your company?*

.....  
.....

15. *What does your company do to make leather sustainable? (more than one answer possible)*

*(Donating to social projects & environmental projects, sustainable production (standard), own social, economic and environments projects, adopting national and international standards (which?) or else)*

14. *How does your company support those practices (mentioned in response to Q15)?*  
*- budget? If so how much?*  
*- hired certain people to do certain things (need details)*

16. *Which issue is most important when we talk about sustainability practices of firms in leather industry? (E.g. Education, natural environment, health, human right, governance, infrastructure, job creation and working condition etc.)*

17. *Why do you think sustainable leather important? To you? To your company? To others (specify... like environment, particular stakeholders, etc.)?*

**IV. On the firm's adoption process of more sustainable practices.**

18. *How old is the idea of sustainable leather in your company?*

19. *From whom you heard the idea of sustainable leather for first time?*

20. *What influenced your company to engage in sustainable leather and how?*

21. *Is there any standard sustainability practice expected from your company with respect to environment, production, employees and the community?*

22. *Why is your company adopting such environmental, social and economic responsibilities beyond its profit goals?*

23. *How did your company learn to practice such environmental, social and economic practices?*

25. *How do you explain the challenges and opportunities in practicing sustainability in the leather industry?*

*26. How do you explain the role and interest of government with respect to your social, environmental and economic activities?*

*28. Would you like to mention anything further with respect to sustainable business practices, challenges or opportunities in the leather industry before we conclude this interview?*

## **Appendix II**

### **Guide for interview with: Customers**

#### **I. Introduction**

*Introduction to the purpose of this interview*

*Explanation on the use of interview data*

*Permission for taping*

*Informed consent*

#### **II. Knowledge about leather products- sustainability in leather industry**

#### **III. What should be the sustainability goal in the leather industry according to you?**

*1. What do you know about sustainable leather?*

*2. How do you explain the progress of sustainability in the industry?*

*3. Who should be the main actors and driving forces in the promotion of sustainability in the industry?*

*- Government*

*- Brands*

*- Media*

*- Consumer associations*

*4. How do you explain the role of different actors (the state, NGOs and Community Organizations etc.) in shaping sustainability practices of the industry?*

*- Focus areas, Means of intervention, Scope of intervention*

*- Leather industry institute role,*