

The Dynamics of Drying Practice in Barranquilla, Colombia

A Social Practice Theory approach

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Abstract

Household energy consumption accounts for the largest proportion for the emissions of greenhouse gas emissions. These gases are the main contributors to global warming. World leaders have set a goal to limit warming to a maximum of 2 ° C. This has been identified as the safe limit to ensure stability of life on the planet. One of the dilemmas on energy consumption relates to the 1.3 billion people who have no access to energy in their households. One of the sustainable development goals from the UN is to cover the access to “renewable energy for all”. But, to do so, renewable energies have a long road ahead with many barriers. At the current rates of consumption we are already experiencing changes in the climate. To be able to minimize the emissions of these gases, there should be measures to encourage sustainable practices. Colombia, although contributing only 0.35% of the global CO₂ emissions, is a country with stable economic growth, which is increasing the amount of people in the middle income strata. This makes Colombia a country that will continue increasing its production, and therefore its greenhouse gas emissions. This thesis contributes in the understanding of how everyday practices affect consumption of energy, and therefore greenhouse gas emissions. To do so, it analyses the drying practice in the city of Barranquilla, within a Social Practice Theory approach. The theory of practice is a type of theory of culture. It explains actions in everyday life in terms of the dynamic of its elements: embodied knowledge and competences; the embedded knowledge of the material world; and the symbolic structures of social meanings. Social practice theory is able to analyze behaviors, not from an individual perspective, but by analyzing the practice itself. It considers the individual just a carrier of the practice. This thesis explains how a sustainable drying practice, hanging clothes to dry, is being replaced by an appliance that emits greenhouse gases: the tumble dryer. The research was done with a qualitative method, where 21 interviews were conducted in order to gain an understanding of drying practice in Barranquilla. The study examined different socioeconomic strata of the city.

Key Words: Practice, Habits, Energy Consumption, Social Practice Theory, Global Warming, Climate Change, Drying Practice, Tumble Dryers, Hanging the Clothes, Socio-Economic Strata.

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Abbreviations

SPT – Social Practice Theory

TD – Tumble Dryers

WM – Washing Machine

1 Introduction

Globally, consumption is increasing to unprecedented levels, which is directly related to global warming (Adams 2009; Costa et al. 2011; WBGU 2014; IPCC 2014). This trend is generating a model of everyday practice that is unsustainable (Princen 1999, 348). Everyday activities are a subject of study that need a bigger attention, as they are capable of providing a starting point in a discussion of how society and its behavior, is able to contribute to the mitigation of global warming (Shove 2009,1; Shove and Spurling 2013,1). The way we do things on a daily basis accounts for routinized moments of doings and sayings, which are linked to the consumption of resources such as energy, and water, like: storing food in the refrigerator, washing the clothes with a washing machine, brushing our teeth's, taking one or two showers a day.

One of the most mundane everyday practices, about which there is little research, is the everyday activity of laundry, of which the practice of drying clothes is a constituent part. The study of practice can offer an explanation of how homes are organized on a basis of everyday life (Pink et al. 2013, 2). The research in this thesis focuses on the drying practice instead of the laundry practice because of the small effort and zero carbon emission practice of hanging the clothes against the consumption of the Tumble Dryer (TD).

When people ask me about my thesis, or when I find people drying their clothes, I've had the habit of saying that my thesis is about TDs. The first answer from people is to ask if I am joking. When I start explaining, they have been surprised by how much information you can get from understanding the way we practice on an everyday basis. But what I have found to be the most prominent idea in this research is the potential that the theory of practice has for understanding change (Shove et al. 2013, 1).

I have come to believe that the more we understand how we practice our everyday life; the better we can assess what need to be done to contribute to the mitigation of global warming. This is because we consume things and services that use natural resource to accomplish a social practice (Shove and Spurling 2013, 1), and this consumption is one of the main contributors to the phenomenon of climate change.

I should stress that my purpose is not to criticize the consumption of things but to use Social Practice Theory (SPT) as an approach for analyzing consumption organization; this from a practice perspective instead of an individual choice (Warde 2005 132). In SPT people don't consume things for the sake of consuming things, but to practice (Shove and Spurling 2013, 1). With a better understanding of everyday practices and the dynamic of its elements: the embodied knowledge and competences, the embedded knowledge of the material world, and the symbolic structures of social meanings; we can pursue more effective consumption policies by influencing education, markets, and regulations for more sustainable practices (Wilk 2002, 6).

1.1 Research Question

This study wants to contribute in the mitigation for global warming and to sustainable development. To do so, it proposes a research question related to understanding why and how people consume energy in a developing country. It examines the relationship between mundane everyday activities and routines with energy consumption, explaining it through the theory of Social Practice. The thesis understands that technologies have embedded knowledge and are “intrinsically social” (Wilhite and Sahakian 2014, 28-29; Winther 2012, 192). Therefore my research question is to explain:

- Why do people from different socioeconomic strata use tumble dryers in the city of Barranquilla, even though there is sun most time of the year?

This implies that energy consumption interacts in a social space, and that there's a connection between this space and an understanding of consumption. The thesis will also examine two sub questions, which will contribute to answering the main research question.

Sub Question

- What differences in drying practice are there between the different socioeconomic strata in Barranquilla?
- What is the explanation behind the diminishment of the practice of drying clothes in the sun and what is the potential for retaining this practice?

1.2 Sustainable Development and Climate Change

Current patterns of consumption are unsustainable (Wilhite and Sahakian 2014, 1). Treating natural resources as unlimited; causes negative impacts on the environment by the emissions of greenhouse gases. These patterns of economic practice cause global warming, destroys habitats and damages the natural cycles of life. If everyone in the world reaches the economic consumption levels of western Europeans, Chinese, and US-Americans, the world would need the resource capacity of three planets (WWF, cited in Shove 2013, 1). Sustainable development spanning economic, ecological and social aspects of everyday life is necessary in order to bring this calculation down to one planet (Shove 2013, 2).

According to the Brundtland commission report, *Our Common Future*, sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987, 8).

Discussions over how to manage today's resources represent a conflict between the needs of the present and the needs of the future (McNeill 2000, 11). This difficulty arises when the term 'sustainable development' reaches the field: a responsible use of natural resources must prevent further negative impact on natural habitats and biodiversity, but must also end global poverty and inequality, keeping the world economy within a stable pattern of growth, equity, and participation (Adams 2009, 2; McNeill 2000, 16).

Following the expiration of the Millennium Development Goals, the UN set a new agenda of 17 Sustainable Development Goals (SDGs) for 2030, bringing fresh focus to the approach introduced by the Brundtland Commission (UN 2016). These SDGs are advancements in the integration of the three dimensions for a sustainable development: as they treat social, environmental and economic aspects (Yonglong Lu 2015, 432). However, the development paths of most countries are focused on the growth of the Gross Domestic Product (GDP). The political concerns of the globalized world are based on expanding GDP, leading to the idea that societies' wealth is based on the continuous growth of their economies (Wilhite and Nørgård 2004, 994), leaving behind the other pillars for a sustainable development.

By following an economic growth path and ever-greater consumption in order to achieve our present needs, the possibility of a sustainable future is struggling in the face of environmental degradation (Adams 2009, 17). We are lacking a path towards sustainable consumption of resources. The emission of greenhouse gases is causing a global warming, and is therefore the main threat for to environmental and social conditions that the future generations will inherit. In order to achieve sustainable development, we have to overcome the biggest threat in sustainability, which is global warming and its consequences (IPCC 2014, 326).

Global warming is mainly caused by the greenhouse gas emissions, by the burning of fossil fuels such as gas, oil, and coal to create energy for human development and economic growth (Costa et al. 2011, 1). These gases stay in the atmosphere causing a greenhouse effect, where the solar radiation cannot get out of the Earth's atmosphere. This causes global temperatures to rise, with 93% of the increase being absorbed by the oceans. Warmer temperatures also causes melt-downs of the ice on the poles and sea levels rise; and CO₂ concentration increases the acidification of the oceans, causing disequilibrium in the planet's life and climate cycle (WBGU 2014, 6 – 8). Global warming is the rise of the Earth's total surface temperature since the modern record started in 1880 (NASA 2016). Climate change as a whole is a symptom of the warming through its physical side effects (IPCC 2014).

In the last two decades scientists recorded the highest greenhouse gas emission in human history, from 26 gigatonnes of CO₂ emissions in the 1970 to 49 gigatonnes in 2010 (IPCC 2014, 42). According to the IPCC (2014, 8-9; 516), 35% of the increase in greenhouse emissions are caused to 35 % by energy production, 24 % by the agricultural and forestry sectors, 21% by industry, and 14% by transport. Households have the highest percentage in energy use with a 32%; and 19% of the energy consumed in households are related to greenhouse gas emissions (2014, 675).

If societies continue on this development path, we won't be able to mitigate the levels of global warming. This scenario will lead to us exceeding the 2° C rise in global average temperature since records started. This temperature has been established as the limit for ensuring stability for living organisms and societies to be able to adapt to the climate changes that the planet will be suffering (WBGU 2011, 2). The surface temperature has already reached a 0.9 ° C rise in temperature (WBGU 2014, 5). Therefore a reduction

on energy consumption and the transition to renewable energies are essential to mitigate global warming.

Efforts to reduce the amount of emissions of CO₂ are led by the replacement of fuel sources for producing energy, by changing the burning of fossil fuels to renewable energy sources, such as hydropower, wind, wave and solar power. Replacing the source of energy is a solution, but even these renewable energies have environmental consequences and the time that it will take to do this substitution will take too long to avoid exceeding the 2 ° C line (Wilhite 2013, 60). The reason is because fossil fuels, such as: gas, oil, and coal, are energy sources deeply integrated in the goals of economic growth-based development, and enjoys a strong global political commitment to continue investment (Wilhite 2012, 85 - 86). For example, the extraction and commercialization of fossil fuels are the main source of export and economic income for developing countries, such as Colombia, where the fieldwork was conducted. Therefore, stopping the production of fossil fuel extraction and commercialization could lead the country into an economic crisis. The transition to renewables is slow (Wilhite 2012, 86). In the meantime, we have to offer other paths in order to equal out the social and sustainable development.

It is important to point out that 20 countries account for the 75% of the world greenhouse gas emissions, and only 5 countries (China, USA, Japan, India and Russia) account for over half of the total emission (IPCC 2014, 129 – 131). The inequalities in this subject are immense, and even more when we understand that developing countries are attempting to achieve more access to electricity. The step forward taken by UN (2016) sustainable development goals is the objective to “ensure access to affordable, reliable, sustainable and modern energy for all.” We have to take into account that there are still 1.3 billion people without access to electricity (Wilhite 2012, 82). Electric energy is essential for closing the gap of access to social services, and it has been essential for the economic growth in the economically developed countries (Wilhite 2012, 82). The access to electricity has to be granted, but we shouldn't forget the positive and negative cultural and social implications that the access to energy has to these communities (Winther 2012).

As the levels of energy consumption from developing countries increase, the levels of energy consumption from higher emitters should decrease. The consumption of energy

from developing countries should increase within a sustainable consumption and production,

“because the Greenhouse Gas emissions of any agent (individual, company, country) affect every other agent, an effective outcome will not be achieved if individual agents advance their interests independently of others” (IPCC 2014, 38).

There must be an approach from everyone participating in a shared social convention in order to achieve a sustainable development and mitigate global warming (Shove et al., 143).

The shift to renewables has already started, but as it is a long road to a carbon free world; there should also be a conscious and responsible consumption of energy. A final point to note is that climate change is also a menace for renewables as, for example, the changes in the cycle of rains have caused a severe drought season in Colombia, which had a consequence in a low production of hydropower energy (MinMinas 2016).

1.2.1 Colombia: current energy situation and impact on climate change

This thesis focuses on Barranquilla, Colombia. In order to contextualize the work, it is necessary to ask: what is the energy situation in Colombia and how much does Colombia actually contribute to global warming? On a positive note, Colombia generates 70.35% of its energy by hydropower and 29.03% by fossil fuels, where gas generates 12.6% of energy in Colombia (UPME 2015). Colombia has a big advantage for installing new small hydropower plants, and this capacity is leading to a growth on investment in this energy source. It is supported by a government plan of increasing hydropower generation by 2025 to 77%, which will benefit more urban, commercial and industrial sectors but will exclude rural areas (Morales et al. 2015, 1650). Although these hydropower plants have different economic benefits and can be considered a renewable energy, they have other negative environmental and social impacts (Wilhite 2012, 85). The case of the hydro company in Sogamoso provides an example. Here, there was a territory dispute for resources, little oversight of water use practices, and the livelihood of the small groups of people living in this region and the environment surrounding the dam was negatively affected (Duarte-Abadía et al. 2015). The other

problem with hydropower is drought season. Colombia today is suffering from a long drought season, caused by phenomenon called “El Niño”, which has affected the production of energy in the country. This situation has made the government take action and ask the citizens to save energy for the next months in order to avoid a rationing of energy (MinMinas 2016).

We should also take into consideration that, due to the high percentage of hydropower, Colombia produces only 3.4% of the total emission from Latin America, and 0.35% of global CO₂ emissions. Therefore, the contribution to global warming is minimal. Still, the country is in a phase of stable economic growth, and the increasing demand for energy consumption and fossil fuels are the main economic income for the country (Calderón, S., et al. 2015). Economic growth in developing countries is leading to a higher consumption of household appliances, because of the increase of the middle class strata, and this will relate to an increase of energy consumption (Wilhite 2012, 82-83). If we want to develop in a sustainable manner, we have to face our closest menace, climate change, from every angle.

1.3 Why Tumble dryers and why Barranquilla, Colombia?

The mitigation of global warming needs a massive participation from every energy consumption sector (IPCC 2014, 38). From the 11% of emissions caused by the global energy use related to the industrial sector (IPCC 2014, 44), to the 19% of the total greenhouse emissions in the world emitted by energy consumption in households (IPCC 2014, 678). This percentage indicates that the participation of household energy consumption has the largest participation in emission of greenhouse gases. This made me think about how and why energy is being consumed in households.

Further to this, I searched for an energy consumption practice that is considered a low effort practice, but people are still using technology to accomplish the task. For this reason I found the consumption of the tumble dryer (TD) to be a fascinating example. There are two basic ways of drying your clothes: by hanging your clothes to the sun or using a TD for drying. The differentiation between both ways, in terms of energy consumption, is striking: one uses no limited resources and the other uses fossil fuels to

power the appliance. Even though the electric energy supply of Colombia is largely powered by hydropower, all the TD's found in the sample are powered by electrical energy and the direct burning of natural gas.

Drying clothes and the gas tumble dryers

What is the actual process of drying clothes? How does a Gas TD work? After washing the clothes, they need to be dried enough to enable them to be worn without causing any negative health implications and to feel comfortable (Shove 2003, 125). The scientific explanation of drying comes through evaporation,

“the process by which the element compounds transitions from its liquid state to its gaseous state below the temperature at which it boils;... the process by which liquid water enters the atmosphere as water vapor” (Britanica 2016).

To dry clothes is to make the water that is held in the clothes transit from a liquid state to a gas state. When washing, the clothes are squeezed by hand or with a washing machine (WM), to take out most of the water inside the clothes. This way, when clothes are hanged or put in the drying machine, there is less water absorbed in the clothes; therefore there will be less water to evaporate from the clothing (Woodford 2016).

For hundreds of years this process has involved setting the clothes to the sun and the breeze. A combination of high temperature low humidity and air movements are the best conditions for outdoor drying of clothes (Woodford 2016). As technology has been developing and appliances have become part of our everyday life, machines for laundry have become part of the standard set of household appliances (Shove 2003, 117-133). In the sample for this thesis, all of the TD consumers had a gas TD. So, how does technically gas TD work?

As the name suggests, these gas TDs, instead of using electric energy for heating the inside of the dryer, will use natural gas to make a small controlled flame that will heat the interior, while the clothes dry in the rotating drum, as we can see below in figure 1. Even though the energy for drying the clothes with this appliance is powered by gas and a flame, the appliance uses electric energy for the control panels and the motor of the rotation drum. The dryers, have a vent to take the noxious carbon dioxide gases they

produce outdoors (Vandervort 2014, Porter 2016)¹. This contributes to greenhouse emissions, not only by powering the machine, but by the direct burning of gas.

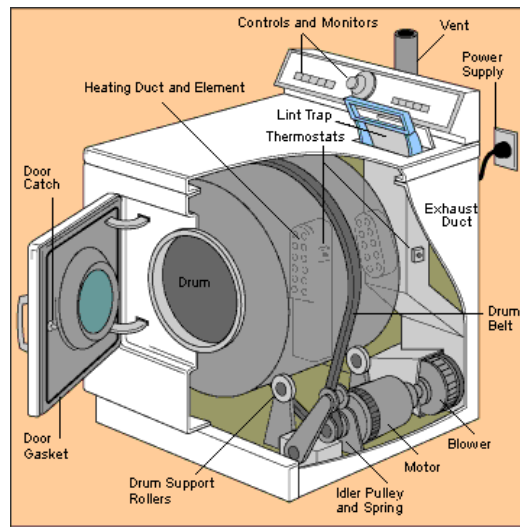


Figure 1: Tumble Dryer Elements. Don Vandervort, HomeTips

If we compare the two practices on drying clothes, by a machine or by air-sun drying, we find that both practices use energy for the evaporation process of the water in the clothing. While one of them will use the power of the sun heat, which is financially free, environmentally friendly, with no greenhouse emission, and therefore a sustainable practice. The other uses two energy resources for power, electricity and natural gas. There is more obvious fossil fuel energy consumption in total when using a TD than when hanging the clothes.

The choice of Barranquilla as the site for the research

I was born and raised in Barranquilla. During these years, I noticed that many people in my surroundings had a tendency to use TDs. With the hot and sunny weather, this cannot be described as a rational choice. There must be some kind social motivation, economic reasons, and many personal ideas; like time consumption, simplicity, space and other factors that will encourage the consumption of TDs. These reflections led to the choice to conduct research on TD consumption in this city.

¹ Some illustration videos of more technical consideration could be found in the following youtube.com links:
The Repair Clinic. 2012. How Does A Gas Dryer Work? — Appliance Repair & Troubleshooting Tips.” Filmed February. Youtube video, 7:58. Posted 6 February 2012. <https://www.youtube.com/watch?v=mcipN8bvpa0>.
Whirlpool. 2013. “Secadoras Whirlpool secado a gas.” Filmed November. Youtube Video, 3:31. Posted 30 November 2013. <https://www.youtube.com/watch?v=1aGXqDyul7c>.

The city of Barranquilla, Colombia was perfect for this study, because of its tropical climate. It is located in the Caribbean coast of the country, and it is the capital of the Atlántico department. Barranquilla has an average temperature of 28° C, with high humidity levels and twelve sun hours a day throughout the year. This means that there are few hindrances to drying clothes in the air.

Barranquilla is a city of around 1.2 million inhabitants, promoted by the municipality as the happiest city of Colombia, or "el mejor vivero del mundo" (best place to live in the world), as people popularly believe and claim. It is a city that serves as a sea and river port, and is located at the mouth of the most important river of Colombia, the Magdalena River. Barranquilla received many immigrants in the late 1800s and early 1900s before and during the First and Second World War. Within it, you will find Asians, Arabs, Africans, people from the United States, Latin America and Europeans. This multi-ethnicity made Barranquilla a very open-minded city, receptive to new cultures and ideas. It has one of the most important carnivals of the world, enshrined by UNESCO as an Intangible Cultural Heritage of Humanity. It is a carnival that celebrates cultural diversity and social equity participation.

With this diversity and receptiveness to different cultures, Barranquilla is a very interesting city to study. The socioeconomic inequalities in the city are visible all around (Barranquilla Como Vamos 2016), and drying practice forms no exception to this: when crossing through poorer areas, drying clothes can be seen hanging all around. In higher socioeconomic strata, this view changes, as there is no clothes hanging in the windows and terraces; so, is it because lower strata don't have access to electricity? What is the energy situation in Barranquilla?

The TD uses two sources of energy, electric and gas. Therefore it is important to ground in the understanding in this thesis, the commercialization of electric energy and natural gas in the city. This energy supply is distributed by a single private company called "Electricaribe", which operates in the seven departments on the Caribbean region in Colombia (Electricaribe 2016). 54% of the subscribers in Barranquilla to this company are located in lower socioeconomic strata zones; 1 and 2. Strata 3 represents 24 % of the total amount; and the rest of the 21% corresponds to strata 4, 5, and 6 (Barranquilla Como Vamos 2013, 297). Further in the methodological chapter, this strata classification will be explained.

Natural gas in the households of Barranquilla is commercialized, installed and distributed by a private company, “Gases del Caribe”. Natural gas, as a fossil fuel, is the main source of energy for stoves; ovens, water heaters, TDs, and other appliances which need function by producing heat. It has a cheaper price in the market compared to electric energy, and there is only one company that commercializes and installs this source in the city, “Gases del Caribe”. 53% of Barranquilla’s subscribers to this company are in strata 1 and 2; strata 3 represents 24% of the total amount; and the rest of the 24% corresponds to strata 4, 5, and 6 (Barranquilla Como Vamos 2014, 299). These amounts are very similar to the ones in electric energy supply, with a higher number of subscribers in higher socioeconomic strata. It is important to specify that 100% of the households in Barranquilla have electrical energy while 98, 2% of the households have natural gas access installed (Barranquilla Como Vamos 2014, 303). But nonetheless everyone in the city has access to at least one energy power source. Therefore, the conditions for drying the clothes in lower socio-economical strata can be powered by the technology.

1.4 Why study households and why Social Practice Theory?

This thesis contributes to an understanding of sustainable development pathways and the mitigation of global warming by studying the social aspects of the energy consumption in households. Households have the highest percentage in the global energy use, accounting for 35% of energy consumption and 19% of total greenhouse gas emissions. The responsibility for global warming is not placed only on the processes involved in the production of energy, but also in how much we consume. We should understand that “all production is consumption and all consumption is production” (Bauman 2004, 291). The link between the two is evident, as we create demand for energy when we consume. As stated, the biggest consumers of energy are households.

We have to keep in mind that the consumption of energy will increase in the coming years, as 1.3 billion people still have no access to electricity, and they are targeted by the UN sustainable goal for 2030. This will lead to an increase in global levels of energy consumption. Therefore, in order to create asserted policies that will target sustainable

energy consumption, there should be special attention not only in how energy is being produced but to the way in which energy is being consumed (Wilhite 2012, 87).

Energy consumption has many positive aspects in human development and it also replaces and facilitates provided by hard work done by humans and animals (Hornborg 2013, 45). But it also engendered unsustainable patterns of consumption in everyday routines. Households use new technologies, such as TVs, refrigerators, dishwashers, washing machines, tumble dryers and other appliances that consume energy in the search for comfort, convenience, luxury, health, cleanliness, food, mobility, and communication. Consumption is stimulated as “the primary source of satisfaction where more is always better” (Princen 1999, 348). There is an association between a good everyday life and energy consumption, mediated through household appliances (Wilhite 2012, 85; Guillen-Royo 2012).

We as individuals in a society believe in different definitions of quality of life, based on where we are socially and economically located (Bourdieu 1977). Understanding the habits, technology and social meanings and rules through strata behavior will give us a bigger picture of the reality of a specific urban area, and how its society interacts with energy consumption (Wilhite 2012, 87-92). The strategies used to meet these needs of wealth and good life (Guillen-Royo 2012) can be fulfilled through sustainable or unsustainable practices (Raushmayer and Omann 2014, 112).

In order to gain a better understanding of the energy consumption in households, for understanding change and to set sustainable practices, this research has been conducted using a SPT approach instead of an Individual Choice Theory approach. The usual individual approach to behavior change analyzes consumption patterns through the mechanism of satisfaction in the hierarchy of needs of individuals (Wilk 2002, 6). Choices are made in a marketplace of possibilities where marketing and advertisement are the main source of information with which individuals make choices affecting consumption (Wilk 2002, 6). This theory casts change as the rationalization of this information by to more conscious consumers, who have been educated about the consequences of their actions (Shove et al. 2012, 3). In the excessive emphasis on individualistic measures, these approaches leave behind “the social relations, material infrastructure and context that are intrinsic in the performance of social practice” (Hargreaves 2011, 82).

SPT provides an approach to change in practice, founded in an understanding of the social reproduction of routinized behaviors:

“rather than seeing change in the resource intensity of daily life as an outcome of individual choice, or of seemingly external social and economic forces, it makes sense to ask how social practices evolve, and what this means for the use of energy, water and other natural resources” (Shove and Spurling 2013, 3).

As Schatzki (1996, 12 -13) explains, “Social order and individuality (...) is a result of the practice”. Practice presents a bigger picture of doings and saying; by studying the practice itself, rather than the individual choice affecting consumption.

SPT has is amore assertive approach for understanding change in practice in higher scale by drawing attention specific trajectories of people’s doings and sayings. It provides the basis of the actions in a shared, social convention, instead of an individual choice; where the processes of change are emergent and not causal. It positions policy intervention as needing to influence the embedded system of practice, rather than expecting information to provide tools for individuals to make a better choice (Shove et al 2012, 143-146).

It is important to understand the social practices behind energy use, and how we link our habits within knowledge, social rules, meanings and values, towards the engagement with households' appliances and goods (Wilhite 2012, 90-91). The understanding of consumption practices will help policy makers to create better approaches for the reduction of energy consumption in households. This will lead to faster mitigation of global warming and towards more sustainable development by sustainable practices (Shove et al. 2012, 139-151).

1.5 Structure of the Thesis

This thesis is divided in six chapters. In this introductory chapter I have presented the topic of choice and rationale, with an overview of the climate change threat, and a background of the location of where the thesis was held, Colombia. As well as my research question. Chapter two will be an overview of my thesis theoretical framework. Including key concepts, on consumption, energy, and energy consumption; as well as

the main theory used for the analysis sections. The third chapter will describe the rationale choice for the methodological approach of this study, plus the different challenges phased during fieldwork. The fourth chapter describes the dynamic of the drying practice through the analysis of the different elements of practice, by addressing the informants' perspective of their drying practice. It separates each of the three elements of practice into different sections. The fifth chapter will describe how the drying practice is governed by time and space. It describes the time and space convenience of the Tumble Dryer, through the answers of the interviewees, the carriers of practice. The sixth chapter will conclude the thesis.

2 Theoretical Framework

This chapter will provide a presentation and clarification of concepts and theory framing the analysis in this thesis. The research question focuses on understanding why people use technology-based energy-consuming methods, such as the TD, in order to satisfy a goal (e.g. to dry clothes) instead of a technology-free, non-energy intensive practice. In order to understand how and why people consume energy, this thesis will be framed on only one social theory of change and analysis, Social Practice Theory (SPT). The framework will explore the different elements of practice, how they interact dynamically and how a practice is able to change over time (Shove 2012). But first we should incorporate the meaning of energy and consumption into our framework as a means to understanding why social practice theory is adequate for this study.

2.1 Energy consumption

Our current unsustainable pattern of energy consumption is stimulated by seeing “consumption as the primary source of satisfaction where more is always better” (Princen 1999, 348). If we want to take our ecological footprint to one planet, measures to reduce consumption on the macro-level need to be successful (Shove and Spurling 2013, 1). As we have been discussing, this thesis has an approach to understanding routinized behaviors in everyday life with regards to household energy consumption.

The sustainable development dimensions of energy consumption are not only to do with climate change and CO₂ emissions. Another element is about learning how to consume energy responsibly because even though, as in our case study here, Colombia produces carbon free energy, we are still dependent on energy resources, and variations in the climate, such as el phenomenon de “El Niño”, where high drought seasons occur. When this happens, the energy production levels are low, so campaigns for energy savings has to be run in order to avoid the energy security to be threatened (MinMinas 2016)

Many efforts to lower energy consumption levels leave the responsibility to individuals by developing more efficient household appliances, like air conditioning (AC), washing machines, and refrigerators. They are then expected to choose to consume these energy efficient appliances, which are intended to reduce their overall consumption. However,

these energy efficiency technology efforts will not lead to any further meaningful reduction in energy consumption. Unless we start creating policies for saving energy based on studies that contribute to an understanding of the meaning, competences and socially-attributed value of energy consumption, rather than focusing on individual behavior of choice (Wilhite and Sahakian 2014, 26 -27; Shove et al. 2013; 143).

To begin we should understand that energy is an intangible commodity: a service provided to be able to use tangible goods. Energy can be based on the scientific definition as the “ability to do work” (Shove and Walker 2014, 41). The energy that is being consumed in households by technology is electrical and it is produced by the consumption of natural resources, fossil fuels or renewable energy like wind and solar power (Wilhite 2013, 60). But it has different interpretations depending in the context of the use of the word, especially in the minds of individuals and as a society. “While energy is a material force in a technical, scientific sense, it is only made useful through its harnessing in the social world of machines, people and work” (Rupp 2013, 93 – 94). Therefore we can understand energy as something that we know it exists without seeing it. That can be produced in order to facilitate the use of other items, but that is only talked about in abstract terms by society, as an invisible force that is able to provide practical functions of movement (Rupp 2013, 79 - 80). In other words, in order for these practical functions to be performed, energy must be consumed.

Let’s continue by comparing these next two definitions on consumption. The first is provided by Campbell (1995, 104), who defines consumption “as any activity involving the selection, purchase, use, maintenance, repair and disposal of any product or service.” Here we can understand consumption as a set of separated actions that construct one main activity, which can be active as a product or a service. Wilhite (2008, 3), simplifies the definition into the “the acquisition and use of things”. These two definitions combined, provide an understanding of consumption as occurring from the moment you decide to acquire an item or a service, where there is a selection and a purchase process, through every moment you use the item or the service. Where there can be maintenance and repair, until this consumption is over through disposal.

If we understand consumption only as the purchase of goods and services we will have a small part of the history when referring to the environmental impact: the production

of goods is just one of several dimensions of consumption; but the use of things also has direct environmental consequences (Princen 1999, 348).

Energy consumption for this thesis will be understood as the acquisition and use of an intangible source that is able to produce the ability for something to work. The combination of technologies, like a light bulb, and the practice of illuminating rooms, is what provides the ability of energy to be consumed as something useful (Shove and Walker 2014, 49, Wilhite 2005, 1).

2.2 Social Practice Theory

To be able to understand everyday energy consumption we should start seeing consumption as a shared social convention and not only as an individual choice (Shove et al. 2013, 143). The study of Social Practice Theory (SPT) has been influencing academic understanding of social change, ensuring a rebirth of interest in behavior and sociological thinking. This thinking builds a bridge between individual choices and the social organization approach to doings and sayings (Warde 2005, 136). Warde in his articles (2005 and 2013) presents the evolution of the practice theory and grounds it in understandings of practice derived from the work of theorists such as: Bourdieu (1977, and 1984), Giddens (1984), Schatzki (1996 and 2002) and Reckwitz (2002). More recently, other theorists have been proposing SPT in order to analyze energy consumption in everyday life and how it changes, such as Wilhite and Sahakian (2014); Shove et al. (2012); Røpke (2009); Winther (2013).

But, what is a practice? To start with the explanation of SPT; Reckwitz (2002, 244-245) explains how the theory of practice is a type of theory of culture; it explains action in an everyday life basis, through symbolic structures of meaning. “A practice is thus a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood” (Reckwitz 2002, 250). This definition provides the beginning of an explanation of practice for this thesis. It follows the idea of routine and every day; a body and objects; meanings and symbols; rules and know-how and a path for understanding society’s ways of doings and sayings.

For this definition Reckwitz (2002, 250) based his work on Schatzki’s (1996, 89-90) discussion on SPT, which identified two senses of practice. One sense is of practice as

an organized nexus where activities are coordinated and linked by doings and sayings as for its analysis as an entity. The second sense is of practice as performance, through the connection of the doings and the sayings.

Schatzki (1996, 98 – 110 seen in Warde 2013, 20) continues with the differentiation between practices that coexist in a social life, and provides two types of practice, “Dispersed and Integrative”. Dispersed practice requires a common understanding in how to carry out an appropriate act “by doing it oneself or when someone else does it” (Warde 2013, 20). These could be: describing, following rules, explaining, and imagining (Schatzki 1996, 91 – 92). This means that society understands the act by knowing how to do the act. Integrative practice uses dispersed practices in order to follow routinized actions. Here rules and elements govern the unit of practice in order to finish a task linked to symbolic structures of social meanings (Warde 2013, 20; Schatzki 1996, 80). Integrative practices include cooking practices, washing practices, business practices and, in our case, drying practices.

Dispersed practices are in the mind of the actors while “integrative practices will depend upon a great many other dispersed practices” in order to be performed (Warde 2013, 22). While these two types of practice can be read as adequate by the coexistence of a social acceptance, even if it’s innovative, only integrative practices will be organized in “performance of themselves, not in the mind of actor” (Schatzki 1996, 105 cited in Warde 2013, 20). Practices are neither individual nor holistic but they portray a social organization (Warde 2005, 136).

The portrayal of social organization is achieved through performance of practices (Shove et al. 2012, 7). Reckwitz and Giddens (2002, 249-250; 1984, 2 cited in Warde 2005, 135) agree with Schatzki’s distinction between two types of practice, as an entity and as a performance; and separates the person from the practice by calling it the “carrier” (Reckwitz 2002, 249-250). Practice requires a “carrier”, a “practitioner”, in order to coordinate the entities and the elements which constitute the practice (Warde 2013, 19). SPT analyzes a behavior not from the point of view of the person, but from the point of view of the practice itself as a performance and as entity of its elements (Shove et al 2012, 7,).

As Giddens (1984, 2) explains, practices are not “brought into being” by the practitioners but are recreated by the elements of the practice when it is performing. Practice becomes a social behavior, as it is engaged in social rules. When the carrier participates by linking the elements of the practice, his qualities will not be treated as individual, but as a participant. His participation as a carrier develops into the elements of a practice that is reproduced, leaving his individual choice behind, to just participate in the performance of the practice. Therefore “the pattern provided by the practice as an entity is filled out and reproduced” (Shove et al. 2012, 7).

By understanding these concepts, we can define practice as a way to understand everyday life activities as units of a routinized behavior that are linked to social rules and values, coordinated by a practitioner, a carrier (Reckwitz 2002, 246). Practices will be recognized as entity and as performances when practitioners link its elements that configure the practice in formalized processes (Shove et al 2012, 14; Røpke and Christensen 2013, 51; Warde 2013; 23).

When studying energy consumption we should take into account that “consumption is not itself a practice but is, rather, a moment in almost every practice” (Warde 2005, 137). By understanding this, consumption cannot be viewed only as a matter of individual satisfaction and choice driven by economic forces, but when added to the analysis, must be an understanding of consumption as an aspect of the practice (Shove and Spurling 2013, 3; Røpke and Christensen 2013, 51). Practice in order to perform, will usually require the use of tools, artifacts infrastructure: material objects (Røpke and Christensen 2013, 51) that in our case study, will consume energy in order to work.

The concept of practice recognizes everyday life activities and energy consumption as routinized activities that have a social context and are culturally grounded (Wilhite and Sahakian 2014, 26 -27). If we understand how social practices evolve, this will enable the study of the different elements of social practices. This can be used to understand how to change an unsustainable practice, or stop the transition of a sustainable to an unsustainable practice. “One important property of social practice is that they are far from static” (Wilhite and Sahakian 2014, 27) and they can be reshaped through their own formalization and elements (Warde 2013, 24-25

Approaching energy consumption by focusing on the analysis on the practice itself rather than on the individual's choice provides a better assessment of how to bring down levels of CO₂ emissions from human activity and, how to reach the goal of reducing our consumption of natural resources to sustainable levels (Wilhite and Sahakian 2014, 26 - 27; Shove et al. 2012, 2-3).

So, what are these elements of practice? And how do they change?

Change through the elements of Practice

Through her own work and by building on the work of other social scientists, like Reckwitz (2002) and Røpke (2009); Shove et al. (2012, 14 – 15: 21-22) simplifies the definition of practice in order to be able to analyze a practice as entity while it's performing. She conceptualizes the existence of three interdependent elements constituting a practice, which carriers combine and enact in order for the practice to exist and perform. The links between these three elements can be made or broken; therefore the practice can appear, persist or disappear. These elements simplify the SPT in order to “conceptualize stability and change” by recognizing the practice as an entity and as a performance.

Shove et al. (2012, 22–23) classify the three elements as: “Competences”, where skills, know-how, and understanding relating to actions, participate in the practice. The second element is the “Material”; which not only includes things, such as objects, infrastructure, tools, but the body itself. The third and last element is defined as “Meaning”, which refers to the symbolism and social rules behind the practice and how the carrier and society in general understands the correct way to practice. The definition of the term meaning is delicate, as different theorists define it in slightly different ways (Shove et al 2012, 23). This thesis will use this term to represent the symbolic significance economic and social values, ideas and aspirations given to the social rules, which are tacitly accepted and performed (Wilhite and Sahakian 2014, 30; Shove et al. 2012, 15;23).

Interestingly, Wilhite and Sahakian (2014, 28-29) have also identified three elements which they call “pillars of agency”, that are similar to the elements identified by Shove et al. (2012). The first one relates to “Bodies”, which gives particular attention to

cognitive knowledge, physical disposition, and beliefs, all of which have been learned through experiences and practical knowledge. The second “pillar” is named “The Material world” and is used to describe the influence that things, such as buildings households, technologies have in the practice have through embedded knowledge. The third and last describes the “Social World”, which includes social rules, settings, values, meanings and institutions.

These two points of view assimilate elements of practice in slightly different categories using different terms. For example, where Shove et al. include the body in the material, Wilhite and Sahakian treat the body as part of knowledge. However, both sets of classification of practice elements have in common an approach to practice which relates constituent elements such as the body, its embedded knowledge and competences to the tools, technologies and infrastructure of the material world as well as to the social understanding of norms and symbolic meanings (Salvesen 2014, 50).

Habits, agency and embedded knowledge

In order to understand the connection between change and stability in and between the elements or pillars of practice, it is essential to recognize social practice in association with agency and habits (Wilhite and Sahakian 2014, 27). Habits are practices that have been consistently reproduced, simplifying life (Shove 2012 B, 101), by acting in the individual in an unconscious state, without much reflection of what is being done, thanks to the constant repetition (Wilhite and Sahakian 2014, 28). “All habits are practice”, but not all practice demands a habitual reproduction (Shove 2012 b, 103). Habits are differentiated from practice because routines have schedules, like morning routines, or my exercise routines; this routinized behavior organizes the practice (Shove 2012 B, 101-103).

As we were discussing earlier, SPT transfers the individual responsibility from the actor’s routine towards the performance of the practice, shifting the agent to the “agency” (Wilhite 2013, 63). Agency has “the capacity to influence acts” (Ortner 1999 cited in Wilhite 2013, 63), and this capacity or ability is not necessarily enacted by the actor, carrier, but is located across the three pillars described above (Wilhite 2013, 63). In practice, agency can take the form of materials, social meaning or/and of competences. For there to be a change in practice, there needs to be “distributed

agency” in more than one pillar. Influencing only one may not be sufficient, depending on how much the habit is related to the three pillars (Wilhite and Sahakian 2014, 28). For a habit to change, another habit is needed replace the old one (Shove 2010, 1276).

Let’s examine an example of a policy intervention which just focuses in individual choice and one pillar of practice, such as competences. Colombia is suffering from an extended drought season, causing problems in the production of energy through hydropower (MinMinas 2016). In consequence the government has launched a campaign to encourage users to save energy, through explaining individuals what habits should be changed (MinMinas 2016). From February 2016, 4 months after fieldwork for this thesis, the government implemented a plan for energy saving, called “Apagar Paga” or, turning off pays off, in order to avoid having to ration energy. They planned to save until April or May 2016 between 5 – 10 % of the daily total energy consumption. During the campaign, household energy consumers received an economic benefit in the discount in their energy bill of 0.14 cents of a dollar for every Kw/hour saved in comparison with the February bill. Conversely, increases in consumption incurred a fine of 0.14 cents of a dollar amount per kw/hour more consumed. By the second week of the scheme the Government made it to the goal of a minimum of a daily 5% saving on energy and aimed to increase this percentage. Daily saving fluctuated wildly, sometimes going higher than 20%, other days not reaching the minimum daily goal (MinMinas 2016). At the end the campaign worked, and there was no energy rationing, in 4 week they made the savings for 6 weeks (MinMinas 2016). This campaign had a goal for a certain period of time where a punctual problem needed to be solved in a certain amount of time; that needed the help of everyone. It was not a campaign that was focused on energy reduction in the long-term.

The incentives for people to use less energy offered by this scheme were purely economic. The campaign focuses on explaining what to do through saving energy tips. These tips are individual practical measures that houses, offices and industries can do in order to help the energy saving for the next month. These tips for households include: do not over-fill your refrigerator with food; turn off your air conditioner (A.C) when there is no-one home and/or regulate the temperature of the A.C to 22° C, and keep your doors and windows closed when turned on; keep only one ceiling fan on per room; disconnect electronics from the plug sockets when they are not being used; and be

aware of the color of the flame when using natural gas, if it is not blue it means the burners are not regulated (MinMinas 2016). The responsibility for saving energy was ceded as an individual choice to people on changing habits. It was an individual choice to change through the information they had and the economics incentives to do so, but as other elements of the practice were not participating, it won't have a long term relationship of change (Shove et al. 2012; Wilhite and Sahakian 2014), and the energy consumption levels will go back to their original levels after the campaign is over.

The pillar of agency focused upon by the policy intervention in this example is the competences of the body. The campaign focuses on providing knowledge that will enable less energy intensive practice. However, in order for habit to change, there must also be a focus on the other two elements of practice. As Shove et al (2012, 7) points out, "it is only through successive moments of performance that the interdependencies between elements which constitute the practice as entity are sustained over time." Thus time, repetition and working on more than one pillar of agency or an element of practice, is essential in order to change a practice through successive moments of performance.

A practice develops from routinized behavior, or habit. This becomes embodied—learned by the body—through the repetition over time of a particular set of actions (Wilhite 2013, 63). While technologies are embedded through the scripts; 'scripts' refers to the agency that technological artifacts have to "shape the actions of their users" Verbeek 2006, 362; Wilhite and Sahakian 2014, 28). However, it is important to allow for the fact that people are able to act in ways which are not in accordance with technology scripts (Wilhite 2013, 64). It is therefore really crucial to take account of every pillar of agency and understand how they contribute to the performance of the practice. While it is true that things, the body, skills and social context all have agency, each of the sources of agency's power is relative: some contributors can have more influence in the performance of a given practice than others (Wilhite and Sahakian 2014, 38).

Habitus and distinctions

This thesis uses SPT for analyzing the findings of a study into differences in drying practice between legally-recognized levels of socioeconomic stratification in Colombia.

This legal categorization of different levels distinguishes socioeconomic strata from one another by reproducing a social order through symbolic and cultural differentiations (Uribe-Mallarino 2008, 147); where the concepts of “habitus” and “distinctions” from Bourdieu (1977) are exposed.

“...a particular type of environment produces *habitus*, systems of durable, transposable dispositions; structured structures predisposed to function as structuring structures” (Bourdieu 1977, 73). The practice lives in a *habitus*, in a particular type of background that gives a distinction, in our case, the Colombian socio-economic strata model. In these environments, there is distinctive knowledge that in the position of the person gives a tendency to act and think, and to practice in a particular way, different from other groups (Uribe-Mallarino 2008, 147).

Bourdieu (cited in Warde 2015, 125) explains that taste - the value of aesthetics - and the distribution of capital are grouping and categorizing the space for social practice in an everyday life basis. People learn to practice by experiencing their closest surrounding's history and the practices that surround them. They will incorporate the knowledge gained as their own; this is what Warde (2015, 125) explained as an “embodied practical reasoning”. Now the distinction of “class becomes embodied through *habitus*” (Wills et al. 2011, 727) and it generates and differentiates practices in between social strata, as class-related dispositions that structure the practice (Uribe-Mallarino 2008, 147). People have been living through explicit similar social and economic categories, life situations, history, and geographical locations; therefore they have similar practices (Uribe-Mallarino 2008, 147).

The concepts of *habitus* and distinction provide the understanding in SPT that the experiences from different social strata are different not only in an economic point of view, but also historical and biographical variables determined by *habitus* and distinction that are important features in structuring the practice (Wilhite and Sahakian 2014, 28).

When a person moves from one socioeconomic stratum to another, its way of practice could be rejected by the boundaries of taste and class of the new social group. This new social group has its own beliefs about an already established practice in their *habitus* that has been constructed over the course of generations. Once the practice interacts in

another *habitus* it might happen that the practice would be socially rejected in this new environment (Wills et al 2011, 727).

The purchase cost constraints on acquiring a Tumble Dryer

Although this thesis, following SPT, does not understand consumption as merely being for the sake of consuming or to satisfy an economic model, the research was nonetheless conducted in a range of different socioeconomic strata. In Colombia, the minimum wage for this year is 689,455 Colombian pesos (COP) a month, around the 230 US dollars (USD) dependent on the exchange rate. The retail market value of a TD in Colombia is between 500 and 1500 US dollars. This means that having access to a TD requires the effort of saving, planning and prioritizing household expenditure. This places an economic constraint on who is able to afford one.

According to research conducted in 2013 by the EAFIT University, in Medellin, Colombia, 55% of working Colombians earn the minimum wage, 40% of the working population earns between 231 USD to 1000 USD, while only 5% of the working population earns over 1000 USD a month. According to the statistical department of Colombia, DANE's, report on Poverty and Inequity (2015), the GINI coefficient², for Colombia's income, wealth and access to assets, is 0.53. Data collected by the OECD in 2012 shows the GINI coefficient of Norway as being 0.25, Spain being 0.33 and Mexico 0.45. Colombia has a very high rate of income inequality; in the UNDP Report for Human Development in (2015, 209; 217), Colombia ranked 12 in greatest income inequality from 168 countries studied. This disparity in the access to goods in Colombia has to be taken into account in efforts to explain drying practice in the country.

Access to this thesis' material object of study, the TD, is not equal across all socioeconomic strata. Its high retail price in relation to the minimum wage creates a barrier to access for lower strata. This economic situation limits how far the TD can permeate into drying practice.

² **Gini Coefficient**, is a statistical measurement that represent the income distribution and inequality, in our case is an income inequality where, 0 = complete equality; 1 = complete inequality. (OECD 2012)

3 Methodology

In the last chapter we described the rationale for choosing the theoretical framework used in this thesis. This next chapter describes the methodological approach. There is an understanding that there are many ways of knowing and there are two current strong philosophies in approaches to academic research: a naturalist and a constructivist philosophy. This thesis, because of the nature on the subject of matter, will work with a constructivist philosophy (Moses and Knutsen 2012, 1-2). The thesis is not aiming to prove patterns described in a hypothesis, but it will be attempting to answer a research question with inductive reasoning using SPT as a framework.

The thesis is aims to, using SPT, understand why we consume energy, not to analyze statistical data about how we consume. “How much we consume and the selection of priority areas for reducing material and energy throughputs are necessary, yet this tells us nothing about why and in what way we engage the consumption activities” (Wilhite and Sahakian 2014, 26). While individuals do not all follow a fixed, homogeneous way of doing that creates societal consumption patterns, we do act as a group whose collective actions constitutes a shared way of thinking, saying and acting. Society does not consume merely to satisfy rational economic considerations; price and quantity do not set the rules. We justify, we think, we imagine, we desire, we practice socially (Shove et al. 2012). Social norms, embodied and embedded knowledge, create motivations driving consumption, and these elements are fundamental to a constructivist (Moses and Knutsen 2012, 10). We look for alternatives, and choose what fits us according to our individual thought, but this choice is always a reflection of social context.

3.1 Qualitative Research

A qualitative approach was taken to the collection of data for this thesis, which involved 21 semi-structured interviews with informants representing different socioeconomic strata in the city. The qualitative approach was more appropriate given that the purpose of the research was to use SPT to understand why the informants consume in the way that they do. This understanding was achieved by interpreting the informants' drying practice from what they said in interviews. Qualitative research is concerned with

people's voices and words. Qualitative data is interpreted in order to construct an understanding of a reality, rather than to model it using statistical information (Bryman 2008, 380). As we are searching for meaning of practice, quantitative information will play little part in the understanding of people's dispositions, habits, and motivations to act. While by qualitative research, the information is interpreted through constructing an understanding of the world of the participant and their words (Bryman 2008, 380; Creswell 2003, 182). The qualitative approach understands that everyone is different; therefore it is not possible to generalize results, as results are based on the researcher's interpretation, and they cannot be replicated. It does, however, provide an understanding of a why we say and act (Overton and Diermann 2003, 55).

If this research had been conducted as a quantitative study then this would have led to a significant separation between the interviewee and the interviewer. Had the informants just been requested to answer structured questions from a survey, then this would not have led to the in-depth findings of the research. The aim of this thesis is to understand the social behavior surrounding the consumption of energy and why this practice comes about. We use the individual as a source of information to help understand practice and the complexity of decisions (Wilhite 2008, 10-13; Brockington and Sullivan 2003, 59; Warde 2013, 19). It was essential to the understanding of the reality of the social practices in the city that the research was conducted using a qualitative method.

3.2 Fieldwork

The fieldwork was conducted over a two month period from 7th August to the 8th October, when I came back to Norway. I used an interview guide that was prepared before travelling to Colombia, but more questions were added to the guide throughout the process of fieldwork. A total of 21 in-depth, semi-structured interviewees were conducted by me personally (Appendix A), each one of them took from 45 minutes to a maximum 75 minutes, depending on the interviewee's time and willingness to talk. 18 of the interviews were held in their houses; one in a taxi, because when heading towards an interview, the taxi-driver got very interested in the subject of research and volunteered himself as an interviewee; and 2 were held in a shopping mall because it was raining and we were not able to make it to the interviewee's house, because of the infrastructure problems of water management the city has. As there is no proper

canalization of the waters, when it rains hard, the city becomes flooded and forms dangerous “arroyos”³, that are strong currents of water running through the streets towards the river.

During fieldwork the subject of volume and organization of household space was one of the main reasons mentioned by informants for TD consumption. It was for this reason that one elite interview was held separately with an architect lecturer and researcher from the “*Autonoma University*” in Barranquilla, who was working on an unpublished research on household space design through time in Barranquilla.

Having in-depth semi-structured interviews allowed me as a researcher to accommodate different directions in the conversation with informants, according to what they were saying and dwelling upon the most. When the interviewees mentioned something that had not come up before, it was possible to allow them to explain it further in that moment, in the absence of the boundaries of a structured guide or survey. This method allowed me to make the interviews more like a conversation between friends, where honesty and trust was essential (Boyce and Neale 2006, 2).

Conducting the research in interviewee's houses meant that the interviews could be more pleasant, and gave the interviewees confidence. This made the conversation more fluent, and allowed me to have a closer insight into the practices. As the subject was a matter of everyday practices, people were pretty open about it and showed no intention on wanting to hide or withhold information about their laundry/drying practice. On the contrary, interviewees were very proud and pleased on talking about their practices. Each interview began with an explanation that the purpose was not to judgment or a right or wrong way to dry clothes, but that the research was focused on understanding of why and how we conduct our drying practices.

As the interviews were held in the interviewees' houses there was a high level of reliability in their answers, because during the interviews they were already practicing their everyday life. Three quarters of the interviewees in the sample were drying clothes during the interviews. They showed me how they use their spaces and their time for drying, which provided me with the insights that will be explained later in the thesis.

³ Primero Noticias. 2016. “Arroyo de Parque Central arrastró 5 carros en Barranquilla.” Filmed, April. Youtube video, 0:59. Posted 28 April 2016. https://www.youtube.com/watch?v=_gOwgkEtcyU.

This direct contact was one of the main inputs to the interviewer's ability to interpret the actions and perception of the interviewees, and to explore the meaning of their words and how they perceive the world. This helped the research to become a more reliable source of information about the interviewees' different realities (Brockington and Sullivan 2003, 57).

The interviews always started by gaining the interviewees' consent for me to use the information that was going to be given, and for the interview to be recorded (Appendix B). I explained to all the interviewees that the information would be kept anonymous and their identity as informants will be kept hidden. Their names during this thesis have been modified in order to keep their identities protected, but I used common names from Barranquilla in the thesis in order to make the dialogue of the thesis more human and closer to the city.

The interviews continued with an explanation of who I was as a researcher, as a Master's student of the University of Oslo. Coming from an academic background rather than from one of the public service companies was helpful allowing informants to be more honest and open about their practices.

As all of these formalities surrounding consent and anonymity made the interviewees uncomfortable, so the next step was to break the ice between the interviewee and the interviewer. For this I came up with an idea of giving them a picture taken by me in Lofoten Island, Norway, of the Aurora Borealis. This step was crucial in every interview for breaking the ice and earning their trust. Instead of me talking and asking questions from the beginning, the interviewees seemingly felt comfortable to speak freely and easily because they started asking me question about this natural phenomenon, such as: where it was taken, how does it happen and how was it to experience? It allowed them to picture me in a personal life setting, and to see me as a person. This approach made me able to start the conversation with something other than how they dry their clothes and their private practice.

3.2.1 The sample and the role of the researcher

As stated, there were in total 21 interviewees (Appendix C). There was a judgment made by the researcher on the selection of this sample, requiring choices of different

areas and strata all around the city from which to select the interviewees (Creswell 1998, 100). The differences between areas and strata were expanded when I observed different forms of practice. The sample was grown using a snowball technique, where friends of friends and families started contacting different people whom later I could set up a meeting with, and interviewees also recommended me to others (Overton and Diermen 2003, 43). I avoided including in my sample people that I knew personally, to the point that there was no one from the sample which I have known personally or interviewed before. This let me expand my circle and see others away from my inner circle.

As this thesis is on the search to understand the context of the sayings and doings in energy consumption by analyzing the experiences of people and interpreting the information obtained through fieldwork, we should agree that there are many thoughts and beliefs that dictate individual truths. Therefore, in order to reach the understanding of practice based of my research question, it is very important to take into account the individual and cultural beliefs of interviewees in my sample (Moses and Knutsen 2012, 10).

As I was born and raised in the city of Barranquilla, my role as the researcher was in part advantaged by my being part of the culture, but it also has had its disadvantages of being too close to the daily life of the informants. However, I did have the benefit of being able to distance myself from the culture and see them from an outsider perspective, because of my life experience of living abroad in different places around the world, such as Canada, Venezuela, Belgium, India and today Norway. These experiences taught me to see other cultures and admire them. I was raised in a middle income neighborhood and my family became economically better-off, therefore I was able to experience how practices change between a middle strata and high income strata zone in one city, as well as how different everyday practices occur in different places around the world. This has left me today with curiousness about practices as viewed by an outsider.

As the interviewer I was able to distance myself from any subjective matter (Syse 2013, 540). Even though, having been born and raised in this city, gave me an opportunity to have a closer relationship to the culture in everyday practices, understanding more clearly slangs and local ways of doings. When the interviewees were first contacted the

relationship between climate change and energy consumption reduction was never mentioned. Instead, they were engaged by explaining it was research aimed at understanding behavior with regard to drying practices, the consumption of TD and energy.

Even though I have a Bachelor's Degree in International Business with an emphasis on Marketing, I was most advantaged by my previous experience of working with development NGOs. I had previously had the opportunity to conduct some research and development projects in different areas of the city, but especially in lower socio-economical strata. I learned about the importance of the legal socioeconomic stratification, and its importance for doing any kind of research in Colombia. During this experience, I learned how to socialize during fieldwork, move around in different neighborhoods and handle interviews. I learned how to distance myself when needed, and how to get closer to the informant in the interview when needed. The positive approach on separation by strata zones brought new inputs around their different practices towards the consumption of energy and their drying habits. But what are the socio economic strata in Colombia?

Socio economic Stratification for public service in Colombia

In Colombia the socioeconomic stratification of public services is a legal classification of the residential property that receives public services (Uribe-Mallarino 2008, 142). This stratification aims to achieve a better distribution of income, by charging public services differently depending on strata classification. Public services are charged according to the classification of the zone in which they are provided, meaning that there is cross-subsidization between zones. “A higher the strata means a higher economic capacity, therefore they pay more for public services in order to contribute to lower socioeconomic strata being able to pay their bills” (DANE 2016). Strata 5 and 6, and the industrial and commercial zones, are considered the highest socioeconomic strata with highest access to purchase. These groups receive a monthly surtax in both consumption and fixed connections, while the residents of the three first strata are subsidized by the higher strata in a descending order, strata 4 pays the exact amount they consume without any subsidized or surtax (Uribe-Mallarino 2008, 142).

According to DANE, the national statistics department of Colombia, this classification also helps in the orientation and organization of the municipal area. It also aims to focus public investment, like infrastructure and social programs, according to the socioeconomic realities. But Uribe-Mallarino (2008, 144) explains how this social stratification creates social segregation, which has negative impacts on the way people relate to each other. But, she also suggests the effectiveness of this categorization in creating better access to public services such as potable water, gas and energy for people in lower socioeconomic strata. Following this, this thesis provides insight into this social segregation effect of socioeconomic stratification. In the case study here is the segregation effect is unconscious and not an intentional outcome of legal stratification, but is rather linked to a message of differentiation and distinction.

Sample Classification by socio economic strata and life cycles

In order to select a sample for this research I used the legal socioeconomic stratification of public service provision according to the location of households, as discussed above. The evidence of differentiation of practice and taste according to class structure classifications (Bourdieu 1977 seen in Warde 2005, 139) led me to understand the importance of doing this research in every socioeconomic strata. The water, gas and electricity bill indicates the socioeconomic strata depending on where the household is located. Even though most of the household in the same neighborhood have the same strata, it might happen that zones in the same neighborhood, have a different strata. This is why it was important to ask to each of the interviewees for the stratification given by the utility bills. This way, I categorized the 21 interviews in three categories of the legal socioeconomic strata 1-2, 3-4, 5-6, with 5-6 being the upper legal socioeconomic strata, 3-4 the middle socioeconomic strata and 1-2 the lower socioeconomic strata. Even though everyday life is experienced and handled differently for each individual, the social strata create some patterns of conduct and experience of everyday life in this city. Society is organized around a routinized social life that depends on practical knowledge related to these patterns of conduct and experience (Bourdieu 1977, 73, Shove et al. 2012, 2-3).

It is important to take into account that within the classification groups used for this thesis there remains a noticeable difference in economic circumstance between the

strata included in the group. For example, between strata 1 and 2 the economic circumstances and the social conditions were highly perceivably different from the moment of arrival in the neighborhood. But still, these category groups used in the presentation of this research make the sample and the thesis easier to be read and understood. The groups will use the legal names of the categories in the legal representation of the zones. For example, strata 3 and 4 are legally named as lower-middle and middle strata respectively.

In spite of knowing beforehand that it would be very difficult to find a TD consumer in lower socioeconomic strata, the study of drying practice in lower socioeconomic strata became an important contribution to the thesis and its understanding of the why of the consumption of the TD. It's interesting that despite how different the socioeconomic circumstances of the lower and higher strata, there are still some similarities in the way they dry their clothes

Below on Figure 2 we can see the different strata in the city of Barranquilla and the places from where the sample where taken. The map is divided into all the different neighborhoods of Barranquilla. The darker the color the higher the strata zone it is, based on the classification groups used in this research. Where the neighborhood has small circles highlighting them, this indicates that there was at least one interview held in this neighborhood. As we can see, the map shows the division of strata, the northern areas have a higher concentration of the income, while the southern areas have the lower socioeconomic strata. One defining feature of the lower strata is neighborhoods that grew sporadically, with influxes of migration to the city, which settled in the territory and claimed as its own, with no organization. This led to bigger sizes of houses and bigger patios with green areas, which differentiates them from the other areas of the city where cement and very few green areas prevail. In the northern side of the city there is a very particular zone where interviews were held, which has the particularity that half of the zone is considered a lower socioeconomic strata, while the other half is considered a high strata zone. This provides a quite interesting contrast that catches the inequalities, but also the social organization, of the city in one place. All the big area near the river is the industrial and commercial side, where companies have their locations and their private ports. The sample was designed to be focused on as wide as possible an cross-section of the city, and to cover a large part of it.

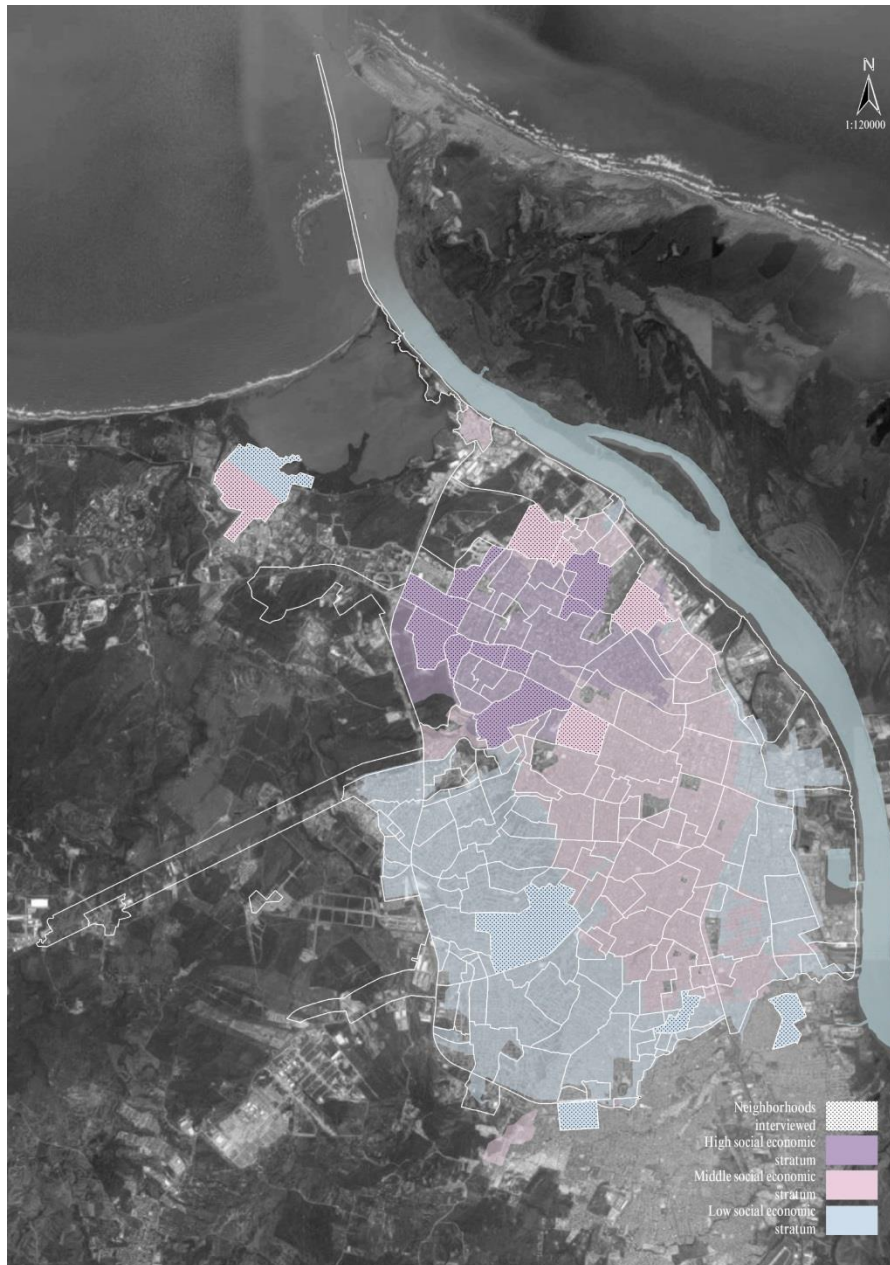


Figure 2: Designed by: Travededo, Hernan, and Erwin Hasselbrinck. 2016. *Zones Where Interviews Where Held*. Maps: Barranquilla District Municipality, www.barranquilla.gov.co; Google Earth

The sample also includes different stages during life cycles, as studies from Wilhite (1996) consider relevant for this type of study. The categories here were set according to the conditions of the city of Barranquilla, and during fieldwork some new categories also appeared. All the categories were: newlyweds and no children, young couples with children, household with and without children, middle age families with children who had left and were no longer living in the households, households with many members living in the household including elders, households with and without tumble dryers.

Table 1 shows a how the sample used in the research breaks down between the different life cycles, socioeconomic classification groups, and ownership of a TD

	No Tumble Dryer	Tumble Dryer	Total	House with patio	Flat	Flat with Patio	Total	Just Married	Married / free union - with children (less than 18 years old living at home)	Married / free union - with children (over 18 year, living at home)	Divorced/ single with children	Household with many members	Grand- Parents/ handicap	Total	House- keeper
Social Strata 1-2	6	0	6	5	0	1	6	0	2	0	2	2	0	6	0
Social Strata 3-4	2	6	8	4	3	1	8	1	0	2	1	3	1	8	4
Social Strata 5-6	3	4	7	3	4	0	7	0	0	4	0	1	2	7	7
Total	11	10	21	12	7	2	21	1	2	6	3	6	3	21	11

Table 1: Life Cycle and Social Strata sample against TD

The practice in every group of strata and stage of life cycle are different in terms of how they dry their clothes, and so therefore these categorizations allow a better understanding of energy consumption. It also provides a more general idea of the energy consumption of the city as a social group. Had this thesis examined only high income levels, and newlyweds, the data would be incomplete, because the drying practices of lower income and household with children for example, are essential to closer holistic understanding on the why of TD consumption.

When the data collection was completed, I came back to Norway and started transcribing the interviews and voice notes. As the interviews where done in Spanish, I had to translate the answers of the interviewees. The style of communication was very different between strata. The lower the strata, the more slang and colloquial expressions where used. For the translations, I tried to be as close to the exact words of the slang, while also keeping the general meaning, so everyone that reading them can understand them. However, some of the slang phrases that do not translate directly are explained during the thesis.

Further along in the process, certain quotations constituting the most important inputs from interviewees were lifted from the transcripts and placed into a framework which organizes these quotes into subjects and practices and plots them against socioeconomic strata and life cycle stages. This framework was then analyzed within the SPT (Appendix D). The framework provides the basis of discussion in the thesis. In the next chapter we will continue with the findings and analysis.

4 The Social Practice of Drying Clothes

Current patterns of energy consumption create levels of greenhouse gas emissions that are causing a global warming. We should understand that the consumption of household appliances is embedded in the consumption of household energy (Wilhite 2008, 4). In order to help mitigate of global warming, mankind has to find a way to practice in a sustainable manner. Sustainable practices are “actions to meet the need of current populations without endangering the prospect and livelihood of future generations” (Princen et al. 2002, 1). To be able to promote sustainable practices, we have to be able to explore how people are consuming energy. An individual approach is a difficult setting for change on a society-wide scale (Shove et al. 2012 143).

During fieldwork I came to realize that interviewees had an awareness of the connection between our practices and climate change. They all agree, from different strata and education levels, that: “mankind is damaging nature.” according to Claudia Olaya from a High Strata neighborhood; that “Climate change is caused by the irresponsibility of human beings, and nature is passing the bill.” according to Giovana Char from a middle class neighborhood; and “We are not taking care of nature, and the environment, we, ourselves, are the one damaging it.” according to Martha Juliao from a lower strata neighborhood. The interviewees made the connection between human damaging natural meteorological cycles because of the current patterns of consumption, and how our everyday lifestyles are linked to this change in the cycles of the weather. They all agree that the temperatures are warmer and that the rainy season has moved to another month of the year, compared to how things used to be.

I have to clarify that interviewees had a very vague definition of what climate change is. They confused climate change with the holes in the ozone layer, plastic pollution, and contamination of rivers. There is no doubt that they all are negative impacts on the environment. Only two of the interviewees had a more profound understanding of climate change as a result of greenhouse gas emissions that are causing a global warming.

Still, the interviewees make a connection between what we are doing in our everyday actions and an environmental problem. Even with this knowledge, the individual freedom of choice to stop unsustainable behaviors has not led the informants to do so. "Our lifestyle is the main reason for climate change," as Maria Quintero, wedding planner, living in a strata 4 neighborhood, said. How much people know about how far their actions can have negative impacts on the environment does not lead to a shared social convention to change. Therefore, we should use a different method for analyzing behavior in order to understand behavior from a different perspective and in order to be able to make policies that have more relationship with the way of doings, rather than policy that only focuses on campaigns of information dissemination. Rather than having an individualistic approach to sustainable behavior, it is needed to engender a shared social convention to practice sustainably (Shove et al. 2012, 143).

In today's economic model there is an assumption that price and quality determine decisions relating to consumption. But we as humans are much more complex than this simple concept. We base our decisions on social relations, attempts to find meaning on status and identity (Princen et al. 2002, 14). We get inspired by dreams of a future life, and we get encouraged by the idea of having "quality of life". However, when it comes to our daily life practices, we as individuals are driven by habits and not by inspirations (Shove et al. 2012, 2-3).

The SPT allows us analyze our everyday practice in the understanding that the individual is just a *carrier* of the practice. Therefore, the analysis here is framed by the understanding of the practice itself; and not the individual's behavior. The thesis was able to identify and analyze the elements of practice through the experience of and the answers in interviews conducted with the *carriers* of the practice.

People practice in order to be able to fit in socially, according to the background and local situation. "Practices are not given but fabricated and consolidated in cultural context" (Warde 2013, 27). Practices become intertwined with the roles of what is socially accepted and what is not. We relate to each other according to our personal beliefs and understandings about life and history in the *habitus*. Our practices are manifestations of our education, our surroundings, our culture, our history, our social condition, and the technologies that are used by the practitioner (Bourdieu 1977, 73, Wilhite and Sahakian 2014, 27). Societies' acceptance of socioeconomic strata is bound

up in their comparison of different practices viewed as manifestations of social image related to class distinction in socioeconomically stratified societies (Bourdieu 1984, 165; Veblen 1899, 29; seen in Trigg, 2001, 100-101), like in Barranquilla.

This chapter will start discussing and analyzing the knowledge embodied by practice through the competences and skills learned by experience, and how routines and daily practice are manifested through the knowledge gained.

It continues with the second element of practice, the material world. Things such as the TD have agency in the practice, through its embedded knowledge; “the performance of a practice usually requires the use of artefacts, such as tools materials and infrastructures” (Røpke and Christensen 2013, 52). Looking inside the performance of the drying practice we are able to understand why TDs are being consumed. Therefore, we will focus on the use of the TD in the practice, rather than the study the individual consumption of TDs.

The third element to be examined concerns the social meaning and rules of the drying practice. Practice has social codes, meanings and rules that represent economic and social power which are read and conceptualized by their neighbors, their surroundings, and by other *habitus* (Bourdieu 1984, 165-167). The big contrast in ideas of what is right or wrong and what is socially accepted or not, grows in a society worried about appearances based on visible or invisible symbols (Veblen 1899, 29; seen in Trigg, 2001, 100-101). In this case drying the clothes, a mundane everyday practice, takes on significant symbolic meaning.

Depending on where the carriers live and the way he or she performs, the practice will be socially accepted or not. The way the drying practice is conducted could represent: wealth, comfort and quality of life or, alternatively, it can also represent: poverty and lack of education and culture. This section will separate the drying practice element of meaning in two: The socioeconomic symbolic meaning of hanging the clothes and the socioeconomic symbolic meaning of the invisible TD.

It is important to understand that practices are not static, they change through time, and they are able to be shaped (Shove et al 2012, 14). In our case, drying practice is being transformed from a sustainable practice, i.e. hanging the clothes, to an unsustainable

practice, i.e. drying the clothes by consuming energy through a TD. The embedded knowledge of technology and the social meaning of this practice are shaping the embodied competences, changing the drying practice.

This chapter will contribute to the thesis a description and analysis of information related to drying practice gathered through fieldwork. It will analyze the drying practice using a SPT method of approach. In order to understand how a practice is able to change there should be an understanding of the dynamics of the drying practice and its elements (Shove et al. 2012. 14).

The next sections will start explaining social practices in the city of Barranquilla, through showing the different ways of drying clothes in between social strata. It will analyze every element of practice and their various agency. It will give a perspective on the element of social meaning, through the associations in the social codes observed in the way the carriers perform the practice; either by hanging the clothes in the backyard, front yard, balcony, inside the house or by using a gas TD machine. The chapter will finish by analyzing how society reads these practices.

4.1 The Competences: the embodied knowledge of drying clothes

The first elements to examine are the competences required for drying the clothes. This section will analyze the know-how of the drying practice. It will analyze the skills of those participating. It will analyze the cognitive knowledge, the physical disposition, and beliefs, learned through a practical and experiential knowledge (Shove et al. 2012, 22–23; Wilhite and Sahakian 2014, 26 -27), that are required in order to dry the clothes properly.

The repetition of doings instills an unconscious set of habits in the practice, which influences the decision making governing how to perform, and whether to change. Repeated exercises have strong agency in the practice that is able to transform the *habitus* over the long term (Wilhite and Sahakian 2004, 28-29). The analyses of the competences required for drying practices provide us with insight into the different skills learned by the carriers. These skills are essential for understanding the social behavior of drying practices in Barranquilla, Colombia.

Everyday activities are conducted in households through practice, and the similarities between the drying practices conducted by people in the city of Barranquilla are linked to the hours of the sun. There's two basic ways of drying clothes. The evaporation of the water held in the clothes can be achieved by hanging them in a space and letting the sun and the breeze do the work. Alternatively, drying can be conducted by using technology such as a gas TD, which heats up the clothes and dries them. We learned the concept of evaporation in the science high school subject; but we never consciously make these relationships with our everyday life habits. We know that clothes will be dried if we leave them in the sun through experiencing the action. The skills required for drying clothes are not that complicated, they are merely to hang them or to push them to the bottom of the TD, and to operate the TD to make it work properly. There is a cognitive process involved, embodied through teachings of how the previous generation used to dry clothes.

When clothes are hung up to dry, they will stay hanged during the afternoon in order to dry properly, even if the carriers perceive that the actual time of drying in the sun will be of an hour. However, the practitioners will use this time in order to pursue other activities. Therefore, as soon as the clothes are hug up, they will pass to another practice. By the end of the afternoon, before the sun sets, the practitioners will take the clothes down, fold them and set them in the closet. The habit is to leave them hanged after they are dried, but to pick them up before the moisture in the air that appears during sunset hours, affecting the dryness of the clothes. This has been learned through experience and through the information passed through generations

Even though this thesis is about drying practices, we should understand that this practice is a component step in laundry practice. Laundry is normally done during the mornings and left to dry during the afternoon. The separation of the tasks between washing and drying was an interesting topic of discussion in the interviews. There had to be a reorientation of rhetoric in order to separate the practice of washing from drying. Although we still have to take into account that the practice of washing has a direct influence on drying practice, as we know practices connect with one another (Shove et al. 2012, 84).

This section will continue to explain the different skills learned through experience. By suggesting how practice from laundry influences the practice of drying. How the

schedule of the week are settled in daily practices; and how habits are embodied through repetition of the practice. This section will continue by examining the beliefs that carriers have, concerning different drying practices. It will conclude with a discussion on the element of competences.

4.1.1 The separation of Clothes and the know-how of the TD

In between individual practice there are connections where links can form and deform in order to pursue a bigger end (Shove et al. 2012, 84), in our case the laundry practice. Washing clothes and drying are integrative practices that are interdependent in laundry practice (Shove et al. 2012, 84). This thesis, however, focuses on drying practice because of the simple nature of the action means it is possible to get the drying done without using technology, but it is a particularity of the gas TD that it uses two sources of fossil fuel energy rather than just the sun. This particularity makes the consumption of TD a singular item in this area. Everyone in this sample had a washing machine (WM) because put simply, washing by hand is “hard work”, although there are still many other agents in the elements of social meaning and time consumption (Shove 2003, 120 -123). Just half of the sample had a TD, so even though washing and drying are interrelated and they depend on each other for the laundry practice, their elements as a practice have different agents.

The drying practice connects to washing, because clothes have to be washed to be dried. There's a separation of clothing that goes to the WM and the TD; classified by the delicacy of the garment. People classify their clothes in order to make them last longer in a good condition (Shove 2003, 120). There is also a separation of white clothes versus colors, and a separation of daily washing, such as uniforms, against the main big weekly wash. This separation of clothing is done by an experiential knowledge. The continuous repetition of laundry develops an understanding of the importance of separating the clothes in order to maintain their quality over time (Shove 2003, 142). So what is the skill and how does it work?

The way in which practitioners organize the washing of their clothes will affect the way they dry the clothes afterwards, so washing therefore has implications that should be taken into account for understanding drying practice. In the beginning of the laundry project, there's a separation of clothes. Basically, all the whites goes together, all the

clothes that have color goes together, jeans and pants are also separated from the pack of clothes while heavy things, such as towels and bed linens, will form their own category. All these categories have a different effects on the decision to use both machines—WMs and TDs—to complete the task of laundry. Marta expressed,

"I separate jeans because the color runs out, when few clothing I try to do it in one cycle if not, is in 2, if its white, it also depends on the amount, if it's the uniforms it is also another set plus, and the uniforms of the child is one more, because it is white clothes, and this is around half day of laundry."

Martha Juliao is a single mom living in a low strata zone with 2 kids. Because of this categorization, people tend to do more than one cycle of laundry a day. It is a task that takes a significant proportion of time in the day, and for many it is not a pleasant task to do. Martha has a washing machine but not a TD, and she considers it to be one of the useful appliances in her household. She makes this classification despite the fact that the WM can cause damage and discoloration to the clothes. The whites could absorb other colors, damaging the clothes. So, she learned to do it this way in order of a better preservation and long lasting of the clothes.

As things have agency, when people have TDs the practice of hanging the clothes changes (Shove 2003, 144), which will be discussed in the next section. However, the practice of sorting clothes remains the same. "When the jeans come out, directly to the TD, when the towels come out, directly to the TD, but towels generally I only wash them every 15 days, because I have plenty(...)" single mom, Veronica Velez middle class, has 2 students living in her house in a room, plus her daughter. This knowledge of separation is embodied in the competences required to dry the clothes. It comes from a different practice. However, there are clothes that the heat of the TD will damage, but which would be fine in the WM (Shove 2003, 145).

Veronica explains how she uses the TD for every type of clothing. She sees the classification as something useful that gives her the advantage of not having a lot of clothes accumulated all over the house. It facilitates her sense of space and time in the laundry tasks of the house. She does laundry once a week, but every 15 days has a special category, towels and bed linens. Her strategy for this action is to have many towels available for all the people of her house. Even though she has the habit of

hanging the towels every day after they are used, she stills rotates it at least twice a week, because of the smells that humidity causes. She also explains that this classification helps her to save energy, water and detergent, because she doesn't have to use the WM and the TD as much as if she washed towels and linen more regularly. All of this knowledge was gained through trial and error, through repetition.

The separation of the clothes happens in every socioeconomic strata, into the same categories, whether or not there is a TD in the household. It is not only about having a specific order and saving time, but it comes also in wanting the clothes to last longer. The machines, if not used correctly, as some interviewees suggested, will damage the clothes, shrink them, or take the colors out, so the practice requires technique and skills in doing things correctly,

"I classify them because there are very delicate clothes that I don't like to put it to the dryer, I prefer to hang them on the strings outdoors, but especially the work clothes, jeans, towels, sheets, that goes to the TD, the most delicate ones I hang them." as Lucia Muñoz, strata 4 explained.

Lucia doesn't mind about the heavy clothing in the machines, because she feels that they will resist the activity of the WM and the heat of the TD. But, it is very common to find clothing that is hand knitted, or has special fashion accessories, that if they go to the WM they will get damaged, and in some cases if they are put in the TD the heat will shrink them. The manuals of the machines teach individuals how to use the machines correctly, but experiences has given them knowledge for helping the clothing to last longer.

The TD must be used in a particular way: the temperature has to be modified according to the amount and type of clothing that will be dried. The correct setting can be found in the instruction manual of the TD, but people generally tend to find the best way through trial and error. If it is not done properly, the machine can damage the clothes. "(...) with the dryer if you don't know how to program it will damage the clothing." Julia Sanchez, housewife from the higher strata, recounted. The TD users use the manual for specific knowledge, but experience and repetition is the primary source of knowledge on which settings are best for the conditions of the clothes that are about to be dried.

Maria Quintero, middle class, wedding planner compares her clothes with her boyfriend's clothes. Before he used to dry his clothes on the sun in the patio, but now he uses a TD and he feels that the clothes last longer, and that the colors last longer. Maria found that the sun damages the clothes even more than the machine, "the sun eats the colors and the clothes last less, it starts getting old." it was through a cognitive process of comparison and repetition of a task that she understood and saw the differences between clothes dried by the sun and by the TD.

Other TD users feel the contrary, that actually the TD damage the clothes, and that the sun its better; "we use the TD for everything, and if clothes are damaged it's ok, because still fashion changes every 4 - 5 years so its ok that the clothes don't last that long." Carlos Mejia. This is a case of the damaging of the clothes caused by the TD or the sun becoming the excuse to buy new clothes and be part of the new fashion trends in the clothing industry.

Whether the sun or the TD damages the clothes faster is a question of perception, it is relative to the user and to each one of the practitioners. However, in all cases there is a process for acquiring their perceptions, and each one of them is learned by embodying knowledge through repetition.

4.1.2 The schedule of drying clothes

Laundry in the city, at least in the sample examined in this study, is normally done 1 – 2 times a week, depending on the number of people of the household. In all the different household settings, the drying practices are conducted mostly in the afternoon. The normal practice from all the socioeconomic strata in the city was that washing is done during the morning, after breakfast, and the clothes are left drying during the afternoon. "The women during the day, in the morning she hangs it and in the afternoon they pick it up (...)" Rafael Perez, taxi driver. They are taken in by the end of the day, before the sun sets, because through experience the practitioners have learned that at this time the moisture in the atmosphere moist increases, so the clothes have to be brought in or they will get damp.

The analysis of how time and space holds together the practice as it will be discussed further in chapter 5. Now, the difficulty of the laundry process on washing taught the

practice to rotate fewer times per week (Shove 2003, 130-131). Washing clothes by hand is a task that no one wants to do unless it is completely necessary and there no other choice. When conducting an interview on a lower strata neighborhood, something very interesting occurred. Some whistling outside of the house was heard. It was a man with a WM in his shoulder, renting it for only 50 cent of a us dollar per hour. He walks house to house in the different lower strata neighborhoods, searching for clients. The interviewee, Marcela Pachon, student and single mom, explained that every time her WM breaks, she will immediately calls the man to rent it “because no one likes to wash by hand.” She considers this task to hard-work, and a time-consuming practice. She considers the action of hanging the clothes to dry, on the other hand, as simple easy as “it only takes a few minutes.” Drying the clothes is considered an easy task, that doesn’t need much effort or time to fulfill the task. While washing by hand would be a task that people don’t want to do at all, to the extent of renting a WM from the street.

All the families on this sample had a WM, which will squeeze the clothes and leave it ready to dry on the sun during noon time through the afternoon. They will hang it, if they don’t have a TD and they will pick it up by the end of the day;

“(…) it takes around 4 hours to do laundry, even though, she just leaves it there; and the drying process is less than an hour, or an hour and a half, but she has the habit of leaving it there and picking it up in the afternoon, because of habit more than the actual process.” Rafael Perez, from a lower strata zone, described his wife's practice.

The habit of leaving clothes hanging during the day allows the person who is doing the laundry to do all the other household tasks, such as cleaning and cooking, or to otherwise spend their time as they choose. The analysis of how we use this period of time while the clothes are hanging, or in the TD, will be discussed further in chapter 5. It is interesting for now to note that the time that clothes take to dry outside is around an hour and a half, and that the hanging process takes around 10 minutes. The effort and the time spent is not much, but because of the habit to leave the clothes hanging, the complete laundry task has a feeling of being a longer process. There is some consciousness of the actual time that the clothes take to dry when hanging, but there is no separation of the complete time of the laundry practice from the actual drying process. The practitioners perceive that the task is complete when they put the clothes in the closet, not when the clothes are dry. And as we wait until the end of the afternoon to

bring the clothes in from where they have been hanging, fold them and put them in the closet, it takes a longer time to finish the entire laundry process, compared to when using the TD.

This schedule of drying the clothes per week is very dynamic and has a relationship, according to the interviewees, to the number of people living in the household. If the family has children or if any of the members have to wear uniforms daily, then this requirement works as an a source of agency. This will modify the schedule of when and how often the laundry practice is conducted throughout the week. Therefore, the consumption of energy will be higher if the household has a TD. Or, it could influence in the motivations for having one, because the practitioners feel like they are doing more work when doing the laundry process without one.

4.1.3 The influence on relationships: Children, many members in the household and Uniforms

Families are the centerpiece of Colombian society. The importance of “family comes first,” is the fundamental idea of the complete script of a Colombian life. It doesn’t matter in which socioeconomic strata you are living; the concept of family is the most important aspect of social life. The element of family in the habitus influences the relationship between the practice and the carrier, causing the carrier to alter the routine of laundry in order to conduct it more times a week, or to consume a TD. The practice performs through a carrier; in almost every household of this sample, this person was the mother. She was the responsible for the practice, or had control of the practice even though someone else did the actual action for the laundry, such as the domestic employee, which will be discussed further in the thesis.

The skills and competences learned for drying, when the practitioner is a single person or living in a house with few people, causes the routines and habits in the practice to be conducted in one particular way. However, one of the groups classified by their stage in the life cycle, families with children, performs this practice more frequently. This group represented a fundamental difference to other groups in terms of the amount of laundry done in a week. As one my oldest interviewees explained. “(...), when you have a family with children, go figure that without a TD.” Gilda Salazar. Therefore, there are external conditions of the carrier that will influence the elements of the practice. They

are able to modify the performance of the practice in a new order (Shove et al 2012, 48). In our case; more family members will make the laundry practice to perform in a more frequent basis.

Children tend to have more dirty clothes anyway, most of the schools in Barranquilla, whether private or public, use uniforms, which households have to wash and dry every day or two. This situation has an agency in the experiential knowledge in the practice of laundry; changing the performance of the practice from twice a week to a daily one. If children do not go to school with clean uniforms, they could have problems with the institution because of the school rules regarding presentation. There is also a social pressure on parents, because if their children appear with dirty uniforms it is taken to symbolize that the parent is not fulfilling all of the requirements of good parenting. This relates to the social meaning of laundry practice (Shove et al 2003, 120). So, in the morning children will go to school in the clean uniform. Once they come back from school, they will change into a new set of clothes, so the uniforms can be washed. If they go to the park, or to a birthday party, they will change to another set of clothes, something more “appropriate” for the situation. When they come back to the house ready to sleep, they will change into their pajamas. This is a normal practice of a middle class neighborhood household with children.

This situation repeats itself in upper strata, even with more rotation of clothes worn daily. They will use different clothing for every event they have during the day. As they have more access to funds, they have more contact with different extracurricular activities during the day, such as karate, swimming, birthdays, doctors’ appointments (psychologist, dentist, pediatric), baseball or soccer, and cinema nights. In lower strata, children have a less frequent rotation of clothes worn throughout the day. The families’ reduced access to paid-for activity restricts the attendance to extracurricular activities. Except for the ones subsidized by the mayoralty, such as the “*Casas de Cultura*” houses of culture, where there are artistic lessons and teachers leading activities every day, all of which can be accessed for free. Even here, the clothing children in the lower strata use are not changed for every activity, while the upper class children have specific clothing for every specific activity. The proper dress codes for every event and situation, for children and grownups, also influences in the amount of laundry done in a

week and has an implication for the drying practice, tending to make the carriers of this practice desire a TD.

The presence of the uniforms allows the family to reduce its clothing budget, but because they will only have a maximum of two to three uniforms, the practice will perform more frequently. If the children do not have uniforms, they still have to wear different clothing every day, and therefore the household's clothing budget increases, but the number of washes during the week can decrease. It does not matter which social strata the carrier is, uniforms and children at least doubles the amount of laundry done compared with households with no children or uniforms.

When there are children and more members of a family living in the house, the routine will increase even more, from one or maximum two laundry sessions a week, to laundry every day. "We have children in the house that go to school, and the uniforms have to be washed daily, also there are 6 people living in the house this make it a big amount of daily clothes." explains Rafael Perez, husband, father of three, and living with his mother-in-law without a TD. They live in the lower strata neighborhood, and reflect a tendency in this sample for more people to live in one household in the lower strata zones, the higher amount of laundry is done in a week. Rafael also expressed how useful having a TD in his house would be, because it would help out in the household workload, giving his woman, the person in charge of these tasks, an easier and faster way on accomplishing the tasks.

In middle class neighborhoods the relation between the variable of school-aged children and the total number of people in the household with the amount of laundry conducted repeats itself. This is Sonia Rueda living in a house with 6 members; she has a TD and makes daily laundry,

"Here is widely used the tumble dryer when the jeans are washed, Monday is the bedding and all the implements of the beds are changed, the towels are washed every day such as the uniforms of the girls, but many times we dry on a clothesline."

This is a family that likes towels: they have towels for the body, one for the feet and hands, and a different for the face, for each member of the house. This amount of towels makes the laundry rotation faster. Sonia explains that normally towels dry in the sun,

when they are only used in the morning, but when they are washed, which is twice a week, they go in the TD. The laundry task is something carriers do not want to take much time or space, when looking after children. So, using technology is a desire for parents who want to simplify the household tasks.

Schools are not the only institutions in Barranquilla to use uniforms for presentation and image. Many companies have uniforms for their employees, and this tendency creates an increase in the amount of washes that occur during the week, just as with school uniforms. “(...)because of my brother's work, he has to change the blue jeans and shirt (uniform) every day (...), to go to work.” explained Ana Marin, whose household has seven members, from teenagers to grandmother, and where laundry takes place daily. The uniform circumstance repeats itself in every strata, and all households with members who wear uniforms.

The interviewees were aware of the children situation, and how the amount of laundry done per week changes because of this and the uniform situation,

“It is washed 2-3 times per week in the house, there are no children at home, they are all adults, and it facilitates not having uniforms, they do not have to have clean clothes every day, only the doctor's clothing (parents are doctors), which is the most often repeated. There are five people in the house including the domestic employee.” Sofia Suarez, journalist student.

Sofia is the daughter of this family in a high strata neighborhood. She was recounting that in her household her parents are both doctors, and they wear uniforms daily. Doctors have a constant use of uniforms and they need to look clean in adherence with a social code which dictates the representation of the doctor's role in society. It is an image that is being represented, and not an individual character. Uniforms communicate with a non-verbal message the idea of aesthetics, respect and cleanliness that society demands from its medical practitioners. Imagine going to a doctor's appointment, and he presents himself in a uniform full of blood and dirty hands, how would you react?

4.1.4 Beliefs about fresh clothes and disinfection

Smells and disinfection have a relationship to each of the elements of the drying practice. But, the carrier has beliefs in this subject for the task to be accomplished correctly. The purpose of the practices around drying the clothes is not only about

making them dry, but doing it right in the right way: if the drying is done inappropriately, the clothes will smell bad. By experience, either by hanging the clothes or by the TD, the persons in this sample believe they learned to accomplish the task with the clothes smelling good, without any fusty odors, with a fresh sensation and disinfected from any bacteria or “germs”.

These aspects have a subjective component, which was interesting. Every interviewee actually thinks that their way of conducting the practice is the best way to get rid of smells, body odor and “germs”. While TD users say it is better for the smells because they won’t have the problem of the humidity or the rain, and their clothes will finish with a soft, warm, cozy and pleasant smell, the sun dryers will express exactly the same point of view but for their method: the sun helps into softening, warming and leaving a sunny characteristic smell. “It gives me a better impression of cleaning to dry outdoor, as if the sun helps you eliminate bad smells and bacteria.” Gloria Echeverri, whose s TD broke a year ago, and considers that the physical effort involved in her drying practice now is not as arduous as when she had the machine. It is a subjective judgment on which method is better. There no reason to believe that one practice in this regard is better than the other, but people do take into account their sense of smell when carrying out their clothes drying practice.

The social meaning element of drying practice will be discussed later in this chapter, but it is important for now to say that: to smell good is an important aspect of the Barranquilla society. It is a hot and humid place, with a lack of trees, parks and green areas to go into the shade and protect you from the harsh sun. This causes everyone who is outside, away from the air conditioner or walking from a place to another, to begin to sweat. Sweating gives a bad impression, and it is stigmatized as wrong. Because everywhere in the city there are air conditioners, the big changes of temperature when moving between outdoors and indoors, combined with sweating, can cause bad smells in clothes, and even to people catching a cold. Gloria felt that the sun helps to eliminate bacteria in a way that TDs do not, but TD users believe the exact opposite.

TD consumers consider that the heat the machine produces is enough to get rid of germs and bacteria, and if there is someone sick person in the family, it is a tool that helps the carrier to disinfect from bacteria and “germs” his/her laundry, such as bed linens, and towels. “(...) the other advantage that the TD has is that it sterilizes the clothes because

of the high temperature...it is not cleaner it is disinfected, doesn't let mites in it" said Veronica Velez, who had a brother with a severe infection, and felt she had to use the TD as a method for helping her sibling, so his illness would improve. He didn't have a TD, but she did. He gave all his clothes, bed linens and towels to her, so he could be able to improve in his condition. He did this without any medical recommendation to do so, but the beliefs surrounding the consumption of the TD gave Veronica and her brother a sense about how things should be done in order to keep the linens germs free.

4.1.5 Discussion and Conclusions on: Competences

Practices are routinized behavior, in which repetition of doings leads practitioners to learn the necessary skills to perform it. The experience gained through doings and sayings of the practice teaches the person how to perform the practice adequately. Improvements to the required competences are gained through the experience, repetition and exercise of the practice. Practitioners believe in their way of practicing as the most suitable, because of the constant repetition, and knowledge learned.

By experiencing how others dry clothes knowledge is transferred from carrier to carrier; from practitioner to practitioner. An experienced carrier teaches the new one how to hang clothes, and/or how to use the TD properly. When the new carrier experiences the hanging or the TD for the first time, he or she learns how to practice according to his or her last doing. Then the new carrier starts learning how to practice through experience. How far knowledge is transferable is effectively dependent on the circumstances and it is able to circulate between practices as well as between people (Shove et al. 2012, 52).

The more often the practice is performed, the more comfortable the person feels with practicing. When in this comfort zone, the practitioner is able to modify reconfigure and adapt the practice to their own learnings (Shove et al. 2012, 52). When using a TD, for example, carriers learn to control the different settings of the machine, by experimenting with pushing the bottoms and trying the different settings in order to understand the performance of the machine better.

The knowledge gained through years of experience in the practice of hanging clothes, caused drying practice to develop around a set of activities that have since been transferred to TD practice. Carriers of drying practice, in general terms, perform the

drying practice during daytime and weekends. People learned to dry in the afternoon because this was when there was the most sun. Even though the TD lets the drying practice to perform at any time of the day; the drying practice is still performed during the same period of time than when hanging the clothes.

When the carriers hang clothes to dry, the clothes are left hanging during the afternoon in order to dry properly. They will be taken in before the sunset in order to avoid moisture in the air making the clothes damp. This habit has been learned through experience and through the information passed through generations. It has been transferred to some TD users that will sometime leave the clothes in the TD, until they remember they have to pick them up. However, if they do so, they will waste the advantages that the TD for reducing the need for clothes ironing. Leaving them in the machine will wrinkle the clothes instead of leaving them unwrinkled.

On the other hand, the analysis shows that practices connect to other practices. In our case the drying practice has a close relationship with the laundry practice. Specific knowledge and skills are transferred from other practices because they have doings and sayings in common.

Drying practice is strongly linked with and influential in the broader practice of doing laundry, because it is a practice that necessarily follows the washing of clothes. The relationship between the two sets a behavior from the first step of the laundry practice, when the clothes are separated by color and delicacy. This separation is transferred through the practice, making the hanging of clothes or using a TD dependent on delicacy of the clothes, and how they have been separated by colors. As they have been separated, the washing of the clothes takes longer, as there will be more cycles of washing in the machine. The practitioner will first put the white clothes in the washing machine. When the machine finishes the cycle they will hang them; then the bed linens, will repeat the cycle, wash them and hang them, and so on with the other categories. This makes the performance of the drying practices to be perceived as a longer task to accomplish. The clothes will have to be hung several times, and they will be left hanging for a longer period of time, while the washing will be already accomplished.

Experience also taught carrier that it is better to accumulate larger amounts of clothing in order to fill the machine each time. Therefore the schedule of TD use varies with the laundry. The laundry schedule is also very dependent in this sample on uniforms, children and the amount of people living in the household.

This constant of uniforms and children is a connection that molds the laundry scheduling practice in the city. Uniforms are conceived as a way to distinguish institutions such as schools and companies to make everyone look the same, and in this way project an image of the organization. The curious part is that teachers, rectors, and others higher in the hierarchical pyramid, except for doctor as we saw in one of the examples; are less likely to be required to wear uniforms, and therefore will have to do less laundry during the week, unless they have children.

The requirement to wear uniforms is also designed as a way to help parents and employees conserve their non-uniform clothes. The more they wash the clothes the faster the clothes lose their colors and texture. Therefore, the clothes they use for social gatherings are different from their working or schooling activities. The topic of how children and uniforms increase the amount of laundry in a week came up into the discussion with the interviewees, very often, even with people without kids. Uniforms increase the need for laundry, therefore more consumption of resources.

One of the other skills learned by the carriers of drying practice was how to deal with smells, humidity and rain. TD users say that drying using a machine is better for the smell of the laundered clothes because they will not have the problem of the humidity or the rain, and their clothes will finish with a soft, warm, cozy and pleasant smell. The sun dryers will say exactly the same point of view, but for their method of drying. It seems that in these subjects, such as clothes damaging, smells, and eliminating bacteria of the clothes, carriers perceive things the way they want to see things. They tend to understand things according to their way of recognizing life in their *habitus*.

This section has explored elements of the competences required for drying practice. Practices are embodied by the person through repetition of the practice, and by learning how to perform. The research showed that the agency of these competences learned through repetition and experience should not be underestimated, as they are able to move from one practice to another. This section demonstrated how practices are defined

by these experiences how they connect, and how knowledge is transferable, meaning that carriers are able to learn, modify, and copy ways of doing involved in the practice and/or from other practices. The next section will explore the second element of agency in practice, the material world and the embedded knowledge of the TD.

4.2 The Material World: The Embedded Knowledge of the TD

There are two main options for drying clothes. One option is to use a simple technology such as a clothes line, which will allow the sun to dry them. The second option is using an energy-using technological artefact such as gas TD. Drying clothes is a task that can be accomplished without a waste of resources, through drying using a carbon-free power source. The nature of technology, however, is its agency in a practice.

Material artifacts have functionality: they are designed to tell us how to be used (Verbeek 2006, 361). When considering practice, it is important to understand that the product designer will anticipate how the user will interact with the artifact, and will assign specific responsibilities to the artifact (Latour 1992, and Akrich 1992 cited in Verbeek 2006, 362). This is known as “scripts” and it has strong agency.

“Things are bearer’s predispositions for consumption. Replacing a tool with an energy-using technology can lead to significant changes in consumption practices and in energy use” (Wilhite 2013, 66). Technologies are able to eliminate different activities or steps of the practice. They are able to influence the scheduling of the everyday practice, allowing the person to plan ahead or to improvise (Shove 2003, 175). They have also led to old habits being stopped, and carriers to accept new ones as the proper way of practicing (Shove 2003, 144).

TDs have had an influence on drying practice, with their embedded knowledge serving as the agent. The advantages mentioned by the interviewees include the ability to control the weather conditions, reschedule the practice time so that it can take place during nighttime; skip two process of laundry—hanging and ironing—and to have spaces available at all time. These advantages make the TD a convenient appliance.

It is important to remember that no TD consumers were found in lower socioeconomic strata, but in middle and high strata. From the 21 families that were interviewed 10 households had a TD. No TDs were found in strata 1 – 2 (lower socioeconomic strata), six households from strata 3 – 4 (middle socioeconomic strata) had a TD, and four households from strata 5 – 6 (higher socioeconomic strata) had a TD. The concentration of people with TD is in the middle and high class strata.

This section will describe the influence of a new material artifact on drying practice: the influence of the TD. It will explain the perception of the carrier about the convenience of the TD, supplied by its embedded knowledge. It will end by describing a particular drying practice, performed through a technology that was designed for a different purpose.

4.2.1 The convenient abilities of the TD

The embedded knowledge of technology is convenient for the practitioners. The TD shapes the drying practice: it gives the carrier the following abilities: skip one step of the drying practice, the hanging of the clothes; being able to reschedule and improvise the moments of the practice in any weather condition; to have things available at any moment with the certainty regarding the time and control of the practice; and to skip the laundry process of ironing. It is an appliance that is increasingly being seen by the people as essential for every household: "the TD is an appliance as important in the family life as the refrigerator or the WM." because of its abilities, according to Julia Sanchez, housewife in a high strata neighborhood. This section will go through this new abilities offered by the TD, as explained by the interviewees.

Hanging of the clothes, not anymore!

The TD gives the practitioner the ability to skip one action of the drying practice: hanging the clothes. After washing, clothes pass from the WM to the TD. The hanging process is over; the carriers don't have to spend the ten minutes of hanging the clothes. Depending on the amount of clothes in the TD, the drying cycle lasts between one or two hours. Then the person has to be aware that the TD cycle stops, so they can go to the machine and finish the practice.

Not hanging the clothes also has a significant positive implication for the use of space. When hanging, the clothes lines take long spaces that cannot be used while drying is in progress. Therefore, it is seen by the interviewees as an essential tool for people living in small flats. It also eliminates the necessity to search for a space which receives more sun in order to dry clothes. Therefore, by eliminating this step of laundry, all spaces are available at all times.

Eliminating the practice of hanging of the clothes is one of the most convenient transformations of the drying practice according to the interviewees, as it leads to being able to reschedule the practice.

Rescheduling the drying practice: the power of controlling availability

Drying usually takes place at around the same time in most households in the sample which have a TD. Of the 10 TD consumers, 8 of them mainly practice the drying during daytime. However, with the embedded knowledge of the TD, the carriers are able to reschedule their drying practice to be at any moment of the day, making them able to improvise if they forget to do laundry. This is a big advantage for household with no domestic employees, and for people who work during daytime.

Patricia Olaya is a nurse who lives in a middle class neighborhood. When she got her first TD she understood that laundry was no longer contingent on the sun. Now the task could be done at any period of the day, even at night; "I do not care if its day or night, at night when I arrive, around this hour without heat, without anything, with fatigue, I put it in the TD, it turns off by itself and I do not care at what time it ends." She had the same habit of leaving clothes in the same place after they are dried as when hanging. Only the period of time when the practice is supposed to be done has changed. It is now possible to do it during the night, after long hours of work. Because of the TD, laundry is no longer a practice dependent on the sun, the weekends or rushing before going to work. This gives Patricia a sense of convenience with regard to the laundry practice, which has been modified by the utilities of a new technology.

The engagement of the TD to the drying practice rescheduled the practice of this family. The practice of doing the laundry during day time, to hang it and bring it in during the afternoon, was changed to doing laundry at night. Higher strata have domestic

employees that will do laundry for them, so lower socioeconomic strata desire a TD accomplish the laundry tasks. Being able to be freed from the sun's timings becomes a motivation for middle and lower economic strata to consume a TD. It provides an advantage in the completion of household tasks to the carriers who work during daytime. When they go to work, the house is empty for long periods of the day, meaning therefore that the household tasks have to be done during nighttime.

The TD and other appliances allow the carriers to reschedule; control and save time previously taken up by the practice (Shove 2003, 176). This technology gives the practitioner the ability to not spend a complete day completing a household task. On the contrary, it gives the practitioner the power to do things at any moment they want to, as well as the certainty that the clothes will be dried in the exact moment planned. In this way practitioners are in control of their social life, and days off. The TD is able to make time, which translates into social value.

“When I hear someone say: we will not go somewhere; because I have to do laundry, then I remember when I had no TD. Yeah laundry divided your week because you had to spend all the time to hang clothes, and if it rains you have to run out and pick up the clothes..., that was a disaster, you had to start again” Maria Quintero Strata 4.

Maria believes that the TD changed her life in a very positive way. She did not like doing laundry because it could take all day. She felt it divided her week. The amount of time that it takes to hang the clothes, and the dependency of the weather conditions, is what makes the TD so convenient to her mind. Maria likes to prolong as much as she can the period between each performance of laundry practice. Because of this, she tends to have huge amounts of dirty clothes when it is laundry day. With the help of technologies like the TD, the complete laundry task has become “simpler”. It helps her to skip steps of the practice, which creates the perception that the task was completed more quickly.

The TD is an appliance that gives the carrier the convenience of being able to complete the task at any time of the day with the certainty that it will be available when the machine finishes its cycle. Sofia Suarez, university student, living at her parents' place, with no TD, sees the TD as an appliance that helps in “fastness, immediacy and availability.” It is a technology that allows rigid timings of a practice to be replaced with

a more flexible schedule. If the person forgets to wash the children's uniform, but remembers at 4am, the clothes would be certainly available at 6am. Or, if you wake up with a whim to wear that specific item of clothing:

"If you need a blue jean at 5 in the afternoon, I will put it to wash, then to dry, and you have your jean ready, because we are these way, we want that jean, you can have 10 more, but we want that one." as Claudia Olaya, housewife, expressed.

Clothes can be dried, even if it raining!

One of the problems of hanging the clothes in the outside is that when it rains the clothes get wet and they have to be re-washed. When it is raining, the TD becomes the best tool for the carrier as it separates the laundry from the weather conditions (Shove 2003, 154). The carrier will only have to put the clothes in the machine, push the buttons and in an hour, regardless of if it is nighttime or a tropical storm, the clothes will be ready to use. Many of the TD users interviewed actually bought their TD during rainy seasons. "About 10 years ago I bought the tumble dryer, it facilitates me the drying clothes, especially in the rainy season, if not the clothes had lasted several days to dry" explained Lucia Muñoz, middle class housewife, about her situation and her reasoning behind buying her first TD.

Barranquilla has tropical wet and dry/ savanna climate, with two periods; a rainy period that lasts from 7 to 8 months and dry period of 4 – 5 months. During the rainy period, even though storms are very big, it is not rainy all day, or even every day. But the weather can change very fast, and it can go from very sunny to raining with little notice. Therefore, if the clothes are hung up in the morning, and it rains during the day, when the person comes back from work, they will find their clothes completely soaked.

"If it's raining I prefer not to wash." said Gloria Echeverri. Gloria is a single mom who has no TD. She finds that the most inconvenient aspect of not having a TD is the lack of ability to overcome the weather conditions. If she does laundry and leaves things to dry outside, the rain can make everything to get wet and dirty again, and she will have to begin her laundry process again from scratch.

The machine helps households to perform their laundry tasks at any time of the day, regardless of the weather conditions. Without a TD, the interviewees felt restrained by the weather conditions in their ability to finish the household tasks.

The TD is a tool that gives the power of decision-making over when to complete certain tasks. Without the hanging practice, the drying practice becomes simpler and more convenient: the task can be done at any moment. There is no use of space the purpose of clothes drying. And, if a carrier wants to use specific clothing and is not washed, they can do so with the certainty that the weather will not be a problem.

Next step, ironing: not anymore!

The other advantage that the TD has is to do with the broader practice of doing laundry. After washing the clothes and drying them, some shirts are ironed. According to the interviewees, the TD allows carriers to skip the practice of ironing. This is one of the biggest advantages the TD consumers mentioned: "...it helps me not to iron, the jeans for example, before I had to iron them after the WM, now instead, they come out straight because of the heat" explained Patricia Olaya from a middle class strata. When the TD finishes its work, the clothes are still so warm that the person is able to make them wrinkle free, just by using their hands. Therefore, straight from being taken out of the machine, they can immediately be folded and organized in the closet, as opposed to having to be hanged and then ironed.

Interviewees also see the use of the TD as an energy saver, because ironing is done using a machine that uses electrical power, while TDs are powered by gas. Therefore, economically speaking, it is cheaper to use the TD than an iron. And, of course, the effort involved in ironing is higher than that involved in the use of a TD.

The TD helps to eliminate steps in the practice, and in so doing it simplifies the complete laundry task and "*makes time*" for the carrier of the practice at the same time as saving energy. The task of ironing is, no doubt, an idea that could be presented as a more complex stage in the laundry process, and it could become a subject of a major study. But, for our subject of study, the skipping of this practice of the laundry practice becomes a motivator for people to consume TD.

4.2.2 The refrigerator: a drying technology?

Things can shape a practice, but people can “domesticate or appropriate technologies in surprising ways” (Wilhite 2013, 64). Non TD consumers have figured out a practice to dry the clothes in the search for available drying space. When things need to be dried immediately and the weather and time condition is not in their favor, they hang the wet clothes and shoes behind the refrigerator.

Hanging behind the refrigerator: “(...) is a practice that is used, that has always existed. When you need something quick like drying shoes or jeans, you put it behind the fridge and that makes the drying... but it consumes a lot of light.” As Lorena Pachon single mom from a lower class neighborhood, was explaining.

The refrigerator emits heat through the back, and people learned through experience to put things behind it. In doing so they appropriated the refrigerator in order to work as a drying machine. Even though the refrigerator is designed for storing food it was domesticated by people for drying practice. The practice satisfies a demand of immediacy and vanity of wanting a certain clothes available at all times. Only interviewees from lower class strata mentioned and accepted they use this technique for drying the clothes.

This method of drying clothes is used only in emergencies where clothes which are wet are needed immediately, because it overcharges the refrigerator, causing it to consume more energy. This makes it very expensive to use as a clothes drying aid, and harms the refrigerator. Nonetheless, it is a way in which people learn through experience to use technologies for a function that they are not designed for.

Hanging clothes behind the refrigerator is a way of drying that is not frequently talked about or even mentioned much during social discussion: “Even I do not know if you have heard this before; but behind the fridge too (laughs), on the grid behind the fridge, we have placed sweaters, interiors, stuff like, to make them dry fast,” Alirio Santos. It has a social connotation, and is mainly accepted to be used by lower socioeconomic strata. This was reflected in the sample, where both interviewees who purported to do this currently were from lower strata. Only Giovanna Char from a high strata zone admitted that, before, when she had no TD, she used to dry clothes behind the refrigerator when she needed something fast.

4.2.3 Discussion and conclusions on: the Material World

The “role of technologies in society is guided by its functionality” (Verbeek 2006, 361). In our case study everyday drying practice has been transformed by a technology. The embedded knowledge of the TD, as a material agent, allows the practice to be performed in ways that are different, to how they have been performed before.

As we have been discussing in this section, the TD helps to organize households. It is able to shape the timing of the drying practice, allows the practice to be carried out in any weather condition. It enables the person to improvise and plan their practice, as it causes drying clothes to be no longer a dependent of external weather conditions.

The TD allows the carrier to circumvent weather conditions, and gives them the sense of being in control of their time through the certainty that they will be able to complete their laundry tasks whenever it is most convenient for them. It provides the required conditions for drying clothes and uniforms at any time of the day or night. The TD is a “convenient appliance” that facilitates completing laundry tasks, giving the person the sense that it is the easiest and fastest way.

The most important convenience advantage of the TD is the fact that it enables its users to skip and replace the hanging step of drying the clothes. This replacement of hanging clothes has many advantageous dimensions for practitioners. It is preferable to hang clothes outside of the house because of factors concerning humidity, time and space. When persons without a TD want to dry the clothes, but it is raining, the practice cannot be carried out. Because the usual practice is to hang the clothes in the morning and bring them in during the afternoon, the carriers need to be mindful of the weather conditions. The TD gives them the ability to dry the clothes inside, regardless of the weather conditions.

The TD also allows another step from the broader laundry practice to be skipped: ironing. Due to the heat of the TD the clothes can be wrinkle free, just by being smoothed over by hand. This is an advantage which allows the practitioner to be finished with the laundry at an earlier stage in the practice than would be the case without a TD, and it saves the effort and energy involved in clothes ironing.

The TD gives the person a sense of controlling time, which is to say that they are certain that things will be ready when they want them to be. Many of the advantages mentioned by the interviewees concerning the embedded knowledge of the TD were related to the use of time and space. This subject will be further addressed in Chapter 5. In the meanwhile, it is sufficient to observe that the TD is able to “make” time and space.

The tendency of societies that are heavily reliant on technology to complete day-to-day tasks is to think of time in terms of immediacy; everything is in a rush; everything needs to be done now (Shove 2003, 178-179). The expectation of this immediacy, having things ready when we want them to be, is a new feature of drying practice.

As we know things can shape a practice, but also people are able to appropriate technologies for other practices (Wilhite 2013, 64). The hanging of the clothes behind refrigerator is a practice that is good example of this phenomenon.

This section has analyzed the influences that material objects have on practice. The different advantages that the TD provides to the carrier of practice allow the practice to be conducted in different ways at different times of day. This section has shown how the embedded knowledge of technology has agency in the formation and change of practice. The next section will go through a third element, the socioeconomic meaning of the drying practice.

4.3 The Symbolic Meanings of the Drying Practice

The elements of practice that were mentioned in the previous sections were: the skills, or competences, of the body learned from performing a practice, and the embedded knowledge of technology. This next section will examine the social and symbolic meaning of the practice of drying, and how the way in which a clothes drying is conducted interacts with social values and social distinctions within society based on socioeconomic stratification.

When practicing, carriers perform in a social context, where values and rules will contribute to the stability of the practice (Wilhite and Sahakian 2014, 30). Practices are

connected to social concepts of meaning by symbolic associations, which are tacitly accepted (Shove et al. 2013, 53; Wilhite and Sahakian 2014, 30).

Carriers attribute these symbolic economic and social meanings to the ways in which practice are conducted. These meanings are linked to the social rules, which are tacitly accepted and performed (Wilhite and Sahakian 2014, 30; Shove et al. 2012, 15; 23). If practices are performed differently from usual, there will be a break in the usual social rules, which in turn will have a symbolic social meaning. Things are revealed through their social uses (Bourdieu 1984, 94). Everyday practices project codes, messages and a representation of the social activities that symbolize socioeconomic power. Barranquilla is a city where strata perception is evident, due largely to the high inequality and legal socioeconomic stratification.

The performance of a practice carries with it symbolic meaning, the interpretation of which is dependent on socioeconomic strata. The interviews held for this thesis gave a clear idea about the social perception of the symbolic meaning that every strata has towards their own drying practice, as well as the practices conducted by others. The distinctions of social class and taste are noticeable through the answers given by the interviewees. Well-performed laundry brings to the practitioner social status. The distinction of quality is made in two ways. Firstly, by the visible space used for the task of laundry in the first place, and, secondly, reflected in the conditions of the clothes worn by the carrier (Shove 2003, 119; 121).

This chapter will start by explaining the social meaning of different drying practices. First it will describe the socioeconomic connotations of hanging clothes to the sun. It will continue with a discussion of the socioeconomic meaning of TD consumption.

4.3.1 The symbolic meanings of hanging the clothes

During fieldwork, I became familiar with the social and economic meanings attached to the practice of hanging clothes in spaces other than the backyard or the laundry room. Depending on which socioeconomic strata zone the person is living in, it is either socially accepted, or not socially accepted, to leave clothes hanging during the afternoon in places such as the front yard, balconies, inside the house and in windows. In higher socioeconomic strata it is not accepted.

Let's start this section by analyzing the comment from Patricia Olaya, mom, wife and full-time nurse living in a medium strata neighborhood. She explains in her words about the symbolic meaning of hanging clothes on the terrace in lower strata neighborhoods, and what this says about the economic situation of the carriers who do this;

"There are places that it is terrible, especially in the south (city), and it makes me sad, I look and I know that they don't have for more and who live in apartments and you see all these ropes with clothes When I see it, it gives me more than anything, is sadness, they move there because it's what they have to live and they don't have the facility to be conditioned to the part of where they live."

The inequality within the city is visually obvious. The socioeconomic strata model draws a line between the rich and the poor, north and south. A line drawn by a clothes rack, or "flags" in the balconies and windows. When crossing this visual line, one has a sensation of being in lower socioeconomic strata, even if you do not know anything about this city. It feels like going from an urban city to a more rural town; and the visible infrastructure has less economic investment than the infrastructure in higher strata. People see these neighborhoods with a feeling of sorrow, a lament of not being able to help the people living there live a better life. They understand that the situation is different from theirs. The amount of clothes in the windows is read by people as a symbol of inequality and poverty. Barranquilla makes this inequality evident in the legal separation of strata, through social beliefs expressed by its residents, and the meanings and values attached to practice. Hanging up clothes to dry is a visual reflection of inequality in the city and a visual distinction of class.

Depending on where the carrier is when drying clothes on the terrace, people read it in one of several ways. It can be accepted and considered to be a normal practice, or it can be seen as something wrong, antisocial and even as a something which will devalue property in the zone. For a higher class strata it is completely unacceptable to hang clothes on the balcony, terrace or windows, while in lower status is an everyday practice. It is an action that demonstrates and symbolizes a situation of life for a lower socioeconomic class.

From this sample, all the interviewees from lower socioeconomic strata expressed the opinion that it was "normal" to hang their clothes in all of these spaces, but when

interviewing the higher strata, the only accepted drying practice besides using a TD was to do conduct the practice in the backyard or the laundry room. All the other spaces are seen by middle and higher strata as a lack of respect towards others from people with low education and cultural level.

To continue with the examination of the social meaning of drying practice we will use as an example one of the interviewees from strata 6 neighborhoods, Magola Ramirez. She expressed that, "hanging clothes in the terrace is a lack of class culture and coexistence, from people who doesn't have a standard of living"; making clear her disapproval and consciousness of class distinction. She is suggesting that people in lower strata do not know how to interact with each other, and that this drying practices has to be understood as an absence of a good cultural expression, "(...) which disfigures from the building, the household(...)" because it is aesthetically unappealing. It doesn't fit with the design of the area, or the building, and "it gives a feeling of lack of coexistence with others, lowering the category, and devalues the property (...)" When she goes deeper into the subject, she expresses the feeling that the habit of hanging clothes in the front yard is something done by an inferior social class performer. It suggests, she says, people do not have respect towards one another; their way of living has no positive effects for one another. Based on an aesthetic judgment of the practice, Magola claimed hanging clothes in the front yard could manifest itself in economic decline, in the possible devaluation of the property. "(...) influencing on the shareholder equity; when you're looking for venues and you want to buy something, you want to buy property that is projected over time to increase in value." It reflects a lower socioeconomic status of the zone, implicating a lower education level and a zone that has no plan to make their zone and property grow in value at attractiveness to investors.

Another interviewee from upper strata is Juliana Restrepo, housewife, mother of two adults, and who doesn't have a TD. She dries her clothes in an area in her apartment dedicated exclusively for this task; never in her windows or balconies. She told us the story about a building on the same block as she lives,

"Those towers there, are in a stratum 6, but I think they are stratum 4, people do it there (hang their clothes in the balcony), it seems to me horrible, people do it for convenience, here is where much breeze hits, and they put the bed linens here and in a minute they are dried, but let me tell

you one thing, a person with a social level; what can I say: that's a 4, because that in plain sight it's horrible, it shocks."

Juliana lives in one of the most exclusive neighborhoods of the city, just behind one of the most prestigious shopping malls of the city. It is the newer zone of the city that has been under construction for the past 15 years. Because of the houses and buildings built surrounding the shopping mall and their parks and green areas, it is considered as one of the new comers among areas of higher socioeconomic level. One of the buildings in this area has been labelled by the others that surround them as a building with a lower category.

According to these surrounding buildings, such as the one where Juliana lives, people from a lower strata live in this one building, because of—for one thing—the way they hang their clothes. They say it shocks the aesthetics of the view and the surroundings, creating a rejection of class differentiation. It has become a building that is socially unaccepted because of the way people who live there perform a practice, because they want to dry their clothes outside in windows or on balconies, where the breeze blows and the sun shines.

Juliana considers that people with a higher level of education and social class would never hang their clothes on the terrace, or in this case the balcony, because this shows a lack of consideration for others. She says that she does not hang the clothes in balconies or windows, even though she does not have a TD, because it is considered as a habit of a lower cultural refinement and less education. The people from this building with clothes on the balconies are able to pay the service charges levied on a high strata zone, and it is for this reason that their neighbors ostracize them far more openly and harshly than they would the same practice in a lower socioeconomic strata zone. If the people of this building lived in lower strata there would be an acceptance of their practice and their circumstances, but because we draw a line demarcating inequality a sociological segregation occurs. If they come and live in this zone, they have to act as the ones from this zone and not hang their clothes on the balcony, because if they do they will be considered to be lower class people.

Unfortunately, there were no interviews held in this building. It would have been interesting to listen to is inhabitant's perspective on their drying practice. Still, the

thoughts of higher strata people from a practice conducted in their sector are a big indicator of the separation and distinctions of social classes. It shows how inequalities are not only stipulated by a legal economic classification, but there is also a social segregation, which is strongly perceived and communicated through the way we practice socially, in this case in an everyday practice such as drying the clothes.

The Meaning of Aesthetics and the Line of privacy

The most common perception about hanging the clothes to be expressed by the interviewees in all the strata zones was that hanging the clothes “doesn’t look good, it looks horrible”. Aesthetics and taste are subjective reasons that come to be understood by society as objective reality through the mediation of the *habitus* (Bourdieu 1977, 86; 1984, 95; 257). Hanging clothes out to dry is considered aesthetically unappealing by all members of society; but while taste and aesthetics is a justifiable reason for higher class strata for not conducting this practice, lower class strata are willing to sacrifice their aesthetic preferences in order to finish a task in the best and fastest way.

As we were discussing, Julia Sanchez, from strata a 5 neighborhood and who doesn’t have a TD, believes clothes drying in plain sight of everyone is unpleasant, visually repulsive, and horrible for the landscape, and this aesthetic perception is reason enough for not hanging the clothes on the terrace. She prefers hanging them inside where no one can see them, even if the clothes will take longer to dry:

"If you go somewhere and see good beautiful buildings with good designs and start to see the windows, you see hanging clothes, it is an impact and you know that aesthetically should not be visually there, because it is not supposed to be there. And we're used on seeing designs and stuff who keep the whole environment visually nice and when we see that something is wrong and does not correspond, it harms and then gives you an idea an opinion, a sense."

The upper classes perceive that hanging clothes on the outside of building damages the visual impact of thoughtfully-designed architecture, and impacts negatively on the area as a whole. As Julia Sanchez says; it is not justifiable to interfere with the exterior of the buildings, because we want to see beautiful things, which are greater than the sum of their parts because they create a sense of an area, another social meaning. The interference with the design of the building or the house makes the surroundings look

dilapidated, and this social projection of wealth—in this perception—is more important than drying clothes where the sun is shining. The aesthetics of the neighborhood gives a sense to other strata of the type of people who live there, whether the area has insecurity issues, and how much investment is made by the municipality. People's perception of beauty and aesthetics in their area gives them a feeling of wealth. There is a clear preference in these areas to dry clothes inside where no one can see them, even though the sun does not shine in this space.

Meanwhile, the habit of drying the clothes in the afternoon by hanging them on the terrace and leaving them until sundown has a pragmatic value for lower class society. They search for the best space in which clothes can be dried by the sun.

Lorena Pachon, a single mom that is living in her single mom's house from a strata 2 neighborhood, also perceives hanging clothes to be aesthetically undesirable, but she has a pragmatic answer for her habit: “on the terrace the sun hits harder, and the backyard has a roof so the sun doesn't hit very well in this space.” The terrace is considered by her as the best place to hang clothes during the afternoon where the sun “pega duro: hits hard”, because of the orientation of the sun at this time. She understands that the basic need to dry clothes is conducted in the place where the sun and the breeze will do this task most effectively.

Lorena's terrace has a roof for rainy days, so clothes will not dry properly; causing them to smell fusty. Instead, she uses the terrace in the front yard to fulfill her drying needs. She knows that she won't have any social problems with her neighbors because, “it is normal for all neighbors to carry out this drying practice in the terrace because the clothes dry faster, in about 60 minutes they are dried by the sun and the breeze.” The normal practice of this stratum is to hang their clothes on the terrace is a product of how fast the practice can be done here. The less time the clothes spend drying, the faster the person can move to the next step of laundry: folding the clothes in the closet. Even so, they will leave the clothes hanging during the afternoon. However, by reading in between the lines in their comments, the faster the laundry is completed the faster the person can do something else. Other implications will be added to the consideration of time, and this will be discussed in chapter 5. For now, it is sufficient to say that time is behind the decision to dry clothes where the sun and the breeze make this faster, in this case the terrace.

Lorena expressed an understanding that the habit of leaving clothes hanging outside on the terrace and all the other places mentioned has a social meaning that varies between social strata as Julia Sanchez expressed. She knows this habit is seen by others as something aesthetically undesirable that projects a set of social values not shared by everyone. In the lower strata neighborhood where Lorena lives, however, there is some fondness for hanging clothes to dry; it takes on a new meaning as a characteristic symbol of coexistence and intimacy between the neighbors. It is something that makes them equal with one another but at the same time unique, it serves as a projection of who they are:

"if you come for a weekend here you will stay amazed (open mouthed), on how all terraces seems like a store, outside, wherever you go you will find clothes outside, through the windows, on the door fences, clothes everywhere, I've seen people put it on the floor, I guess with the clean floor."

The comparison with clothes stores actually describes pretty well how the neighborhood looks when the drying practice is in progress. The weekends are the time of the week when most people of the neighborhood are in their houses, and the interaction between neighbors is essential in this culture. Because people have daytime jobs during the week, the weekends are when most of the laundry is done, and when the social interaction happens. It is normal to find on weekend afternoons neighborhood parties with sound systems, where the neighbors gather in order to listen to music have a beer and dance. Even though these parties are a social gathering, the hanging of the clothes will not be an impediment for people to gather, as there is a shared understanding of everyone's socioeconomic situation in the neighborhoods, and that those clothes should be dried where the sun shines. But in the household where the sound system is playing, a cleared space is needed to allow room for the party to take place.

Even though the interviews were held on a weekday; it was noticeable that clothes were hanging everywhere, from jeans on the rooftop to bed linens on the fences. People talking in between hanging clothes and bed linens facilitating games of hide and seek in the neighborhood is part of the everyday landscape; a normal, logical extension of the practice fulfilling the need to dry clothes. It is important to add that it is not accepted to hang every type of clothing in the exterior of the house; there is a line of aesthetics and privacy which is not crossed even in lower strata.

Lower strata will set the aesthetics line of privacy with underwear, the intimate clothing; “Obviously I do not hang my panties on the terrace, but the heavy clothing”, explained Lorena Pachon. The line of prohibition is subjective, a judgment of what it is embarrassing to expose and show to others. Shove (2003; 124) calls this the “line of boundaries,” I will name it line of privacy. There are things that people will happily hang outside and not feel ashamed, but when an item of clothing breaks the point of privacy, that comfort of showing it to the world disappears, and whether the clothes will dry faster in plain view is no longer the key consideration.

Whether or not hanging certain items of clothing to dry feels like an invasion of privacy determines whether or not the practice will be considered right or wrong. No matter what strata zone the carrier lives, this will create a line of social acceptance in the social space of interaction. Interviewees in the lower socioeconomic strata said that they tended to hang up to dry what they called: “*the heavy clothes*”, such as blue jeans, t-shirts, bed linens, and towels. As Lorena noted in her comments before, these heavy clothes are the ones that take longer to dry completely, and people in lower strata do not consider them private. When it comes to intimate clothes such as bras and underwear is a different case. “I feel sometime a bit ashamed that they see all those clothes hanging there, that influences a lot in the presentation, no one wants to show their intimate clothes, even more for women.” Rafael Perez, father and husband living in a lower strata zone. As his comment explains, hanging intimate clothing projects to my neighbors a message about what kind of respect I have for them and myself. It will immediately suggest a lack of care over presentation or proper conduct. It has connotations of doing something wrong, offensive to others. Even more noticeable, it is seen as a lack of self-respect, inflicting on myself sense of shame, a feeling of discomfort with myself and towards the relationship with my neighbors.

For higher strata the line of aesthetic privacy is set just by the act of hanging any of the clothes in a place where everyone can see it. “I feel it is an invasion of my privacy, my clothes there in the sight of everyone, I would feel a little exposed” Sofia Suarez, daughter in a five family member household in a stratum 6 neighborhood. Where the line is drawn between private and acceptable to hang in full view of neighbors reflects the other differences in practice between strata. While in upper strata the line falls so that all clothes are deemed private and therefore not acceptable to hang in public view,

in lower strata it is only certain, intimate types of clothing that are private. This difference in perception of what is private and what is acceptable to hang in full view adds to the stigmatization by upper strata of lower strata's drying practice.

From all the lower strata interviews conducted, only one of the households did not have the habit on hanging clothes on the terrace. This family, despite living low socioeconomic zone, where everyone can see clothes on all terraces when passing through it, will not hang clothes to dry on their own terrace. The wife Yismari Santos, public school teacher, mother of three, says she does not like it, aesthetically speaking. She says she has never done it, because it looks ugly and they have a large courtyard and that is her tradition. "You can see the flags in the windows" representing the clothes hanging everywhere around the different households, but mostly "In this area, people have large patios in this neighborhood, in this sector, and also for safety, we do not put it out because someone passes and takes them." The big patio is the place where, no matter the social strata, it is completely acceptable to hang clothes. Having a large patio provides the possibility for a household to hang their clothes in the sun. The city does have big problems with security, and this is one of the major concerns for the people living there (Barranquilla Como Vamos, 2015). This family lives around the corner from the biggest jail in the city, in "EL BOSQUE" neighborhood, which, as most of the southern part of the city, grew up spontaneously and without any type of development or urban planning. This has means that the roads are not well paved, and the insecurity issue and feeling grows. It is known as one of the most dangerous neighborhoods of the city, and residents have big concerns for their clothes if they are left hanging all day on the terrace. In fact, this family also said that they never leave the clothes in the backyard at night because of the same insecurity issues.

Social acceptance versus social rules and manuals of co-habitation in buildings

Everyday drying practice not only implies a simple idea of how we do laundry, but also reflects inequality and social segregation between strata. People help their own in their socio economic circle; others have to create their way in the circle. When we start comparing the different stories of perception and interaction between neighbors and laundry in different neighborhoods, questions of participation, respect and acceptance

towards one another are raised by the social meanings attached to different laundry practices. As Magola Ramirez suggested earlier in this chapter “It gives a feeling of lack of coexistence with others, lowering the category (...)”

Lower stratum interviewee Lorena Pachon is aware that hanging clothes in the front yard, in balconies and on the fences is viewed as something “ordinary, ugly, and a lack of culture.” In her neighborhood it is so socially accepted, however, that during the interview she recounted how her neighbor across the street asks her if she can dry their clothes on her terrace deck, because “the sun does not hit her house in the afternoon.” This is an example of how drying in this neighborhood can sometimes be a communal activity.

Based on my experience of interacting with high strata communities in the city, it seems highly unlikely that the lending of any of the laundry machines (WM or TD), or drying in the others patios or courtyard would occur in these neighborhoods. A common expression here, repeated during an interview with Manuela Cepeda, psychologist and grandmother of two from a high strata neighborhood, is that “dirty laundry is done at home.” Although it has a literal connotation that everyone should wash and dry their clothes at home, it also implies that asking a neighbor for help doing or finishing the laundry in their house is impolite. Another layer of meaning of the expression regards the social norm to keep problems of a secret or private nature at home. To not let people see—or let neighbors, families and others gossip about you and your decisions, especially the ones which are considered immoral.

The connotations of drying laundry in full public view are accepted by everyone, but the higher the stratum, the less collaboration there is with regards to practices generally considered to be properly performed in the privacy of home. Meanwhile, in lower strata this collaboration over laundry practice is part of an understanding and acceptances of the duty to dry clothes efficiently, even if this means drying clothes in public view and even sharing privately owned spaces.

These kinds of stories of acceptance and collaboration are common place in lower strata. Sonia Rueda from upper middle strata, though, recounted a story of an occasion in which she and her family had an economic crisis and had to move to a smaller flat and a lower strata zone:

"In my apartment the little one I told you about, there was a lady who was hanging clothes out on the window, she put her clothes out, so then, I went to the administration: Mr. Victor if you please, come here, Mrs. third floor, tell her it is forbidden for hanging towels in the window, and asked her if she doesn't feel embarrassed. It looks ugly to me, I don't know, I do not like it."

She feels that hanging clothes is so wrong that she complained to the building administration about her neighbor, and used the building's written guidelines for its co-inhabitants to support her effort to change her neighbor's practice. The hanging of the clothes gave her a sense of not being in a good economic and social condition, and she did not want her—as she saw it—lower social position following the family's economic crisis to be advertised by her neighbors hanging their clothes on the balconies.

Because of the social meaning attached to hanging clothes on the terrace and balconies, and how it is perceived to interfere with the design of the buildings, there are rules in buildings' cohabitation guidelines that prohibit this practice. The higher the stratum in which the building is located, the more rules it has to do with its façade. Drying becomes a practice that not only has a set of social rules governing it, but these rules are actually drafted for everyone to read or to know about in the “*building manual of co-habitation*”. Building administrations impose various economic sanctions on residents who break these rules, established in order to protect the property prices in the building. If the aesthetics of the façade does not properly reflect the socioeconomic stratum, then the property will lose some of its value.

Juliana Restrepo, housewife from a stratum 6 neighborhood, explained the importance of the façade looking beautiful: "In this building it is forbidden to hang clothes on the balconies (...)." There is a set of rules in the building that are set and upheld by an administrative committee. The administration collects money from all of the owners of the household units within the building, and establishes the rules governing the use of every common social space in the building: the pool, the children's park, the barbeque areas, and other spaces. The administration pays the salaries of the workers such as security, the gardener, the pool boy, and keeps everything in the building to an aesthetic standard. The administration sets the rules of conduct in the building, including rules governing where it is acceptable to dry clothes, “(...) because it looks awful, and gives an unpleasant feeling, even more in these buildings you don't even see the air

conditioners, the extraction fan are in a special room in the kitchen." The aesthetics are so important for these zones, and in this particular building, where some interviews were conducted; special spaces were created for extractor fans, so that they did not interfere with the original design of the building. With the new trend in mini split air conditioners⁴, many buildings have been losing their original design. According to the interviewees, the low cost of running these low energy consuming air conditioners has caused an increase in the number of people installing mini split air conditioners in their households. They have become a trendy solution for the high temperatures of the city. This is a subject that could provide an interesting research topic for a study into how the consumption of air conditioners has increased, and how it has an element of a social performance. During fieldwork, it was in the higher the strata interviews that an air conditioner would be turned on for our comfort. In the lower strata, only fans were used as a way to cool inside space in houses. Even in stratum 3 all interviewees had air conditioners turned on at least at nighttime. However, no AC was found in strata 2 and 1 zones.

The way air conditioners perform varies socioeconomically too, in ways very similar to the TD. Every time that I asked about energy consumption, the first complaint was about the AC. It is the main appliance of high energy consumption, and the first connection interviewees make when talking about lifestyle and energy saving. The aesthetics situation is similar to the subject of study, the TD. The air conditioner fans are most frequently found in the same place as where drying practices are performed, like the patio or in a room besides the kitchen. This space is accepted as having "bad aesthetics." In these places hanging clothes is not subject to aesthetic judgment. It is a hidden action, or else an action achieved using invisible—to the public—appliances, such as the TD and the AC fan. Keeping both of items out of sight represents a high appreciation of culture, education, aesthetics and proper social conduct. But, as we have been emphasizing, drying somewhere else besides these private spaces, or having the fan outside of the building is seen as wrong,

⁴ Mini Split Air Conditioners: Air conditioners without any ducts, so they avoid energy losses and save up to 30% of the energy consumption. The system is composed of two main components: an outdoor compressor/condenser, and an indoor air-handling unit (ENERGY 2016).
<http://energy.gov/energysaver/ductless-mini-split-air-conditioners>

“(...) it is something aesthetic and social, this is stratum 6 where it is supposed to live people with good wealth and money, upper middle class, (...). I have no money, but I have always found it horrible, even if it does not live here, I wouldn't do it”.

The perceived requirement to project an image of owning wealth and belonging to a high class society is persuaded through the performances of the practice. They will always use a space designed for laundry for doing this job, even though there is no sunlight in this area. Buildings in high class zones actually ban the hanging habit with a set of rules, so that drying does not interfere with their class category and building design and aesthetics. The main concerns regarding the habit of leaving the clothes in the balconies are property devaluation and, most importantly, that everyone who goes through the building knows which “kind” of people live in these buildings.

The reference to having “no money” made by Juliana is a comparison with her closer neighbors. Socially, we perceive this comparison as the measure of how wealthy we are. This interviewee compares herself with others in the building and their surroundings, and she wants to belong into this society. She is not from Barranquilla, but from a city further north on the Caribbean coastline of Colombia. She has been living in Barranquilla for more than 25 years, where she has grown wealthier and is today living in an upper class building and neighborhood. She thinks that hanging clothes outside is a practice that is so bad that she will never be willing to do it herself, no matter where she lives, because she has already adopted the principle that the practice ought to be conducted where it is socially acceptable to do so. The link between social acceptance of the habit and its aesthetic dimensions reflects a socially-determined ideal for how co-inhabitants of a building ought to conduct themselves and how the building should look in order for the status of those inhabitants to be recognized by others.

Drying practice has many meanings, which we have explored through the different suggestions provided by the interviewees, the carriers of the practice. From the interviews, it is evident how an everyday practice such as drying clothes operates as a social motivator and as a signifier of attitudes and socially-defined perceptions of reality, aesthetics and even security. Depending on the neighborhood, certain practices with regards to drying are generally accepted and widely performed. In other neighborhoods the same practices may still be performed by some residents, but are not

widely accepted. This can lead to social rejection and even economic sanctions by building administrations.

4.3.2 The symbolic meanings of the invisible TD

Drying practice is a speechless practice, with an unspeakable language that our surroundings and people read in various ways. It plays an important role on the social environment, without people even noticing it.

The relationship between happiness and the material world is observed from the outside as codes, images and symbols that represent a socioeconomic value. The material world of household appliances has a symbolic meaning of having a “quality life”, convenient and comfortable; which interviewees interpret as successful. This success is interpreted in this way because in this social context there is a high value attached to culture, education, aesthetics and social status. Not having things, on the other hand, in comparison to the nearest surroundings, is an indication that life is not going well.

This sub section will continue analyzing the meaning of the TD practice. While the last sub-section explained the social meaning of hanging the clothes in places not considered aesthetically appropriate by society, this subsection demonstrates that TD has social meaning relating to success, happiness welfare and a good life.

The TD symbolizes social and economic power, despite its tendency to be invisible in the household environment. The TD is always located in a hidden space in the house, rather in the laundry room beside the kitchen or in a corner in the patio. The TD is an appliance that people do not speak about when socializing.

Even with this invisibility, the TD gives economic and social power to the consumer that becomes a subject of admiration for well-being by neighbors. It is an appliance that performs through the practice; not displaying is the conduct of someone who is highly cultured, educated, appreciates aesthetics and is of high social status. Veronica Velez from a strata 3 zone was explaining:

"At least here in all building complex I would say that 30% have tumble dryers not everyone has it, in the lower strata I almost don't see tumble dryer; but in the upper strata I think people tend to have things because they are more practical and because they are functional, people want

something to expedite them, in my case, my friends comment on me... wow but you have a tumble dryer this is so cool, but I tell them, is not a luxury but a necessity, a feature that gives me convenience, that's why I have one, and I say if the tumble dryers gets damaged I will gather immediately what so ever and buy another.”

Veronica is a single mom; she looks for jobs that let her have time with her daughter. She has two tenants that use one room of her house.

Ownership of a TD, for Veronica, symbolizes a practical necessity, as well as a measure by which she can compare herself to others in her building. For her, having a TD is not only a device which saves her physical effort, but also contributes to her income. She cooks and does laundry for her tenants, as part of the tenant agreement.

The TD has quite a high social status in Veronica's building. She was the first one in the building, according to her, to be a TD consumer. She got herself a reputation as a single mom who was able to buy one, and then other people from the building began to the consumer TDs. Her neighbor opposite was the first one to feel “jealousy” about the appliance, and bought herself one.

Veronica sees the difference in between middle class and high class as a very unequal social interaction. For her, lower class strata do not have TD because of a lack of economic access, while the upper class buy appliances for doing things more easily, in order to be able to buy time to relax: the ideal way to perform any practice. The comparison between strata makes people either aspire to or reject a particular conduct. When she compared both groups of stratification, she expressed concern for the lower strata, but when speaking about the upper class, she had a look of aspirations, dreams, and expectations.

She compared herself with upper social strata zones. She admires the lifestyle of upper strata, and aspires to one day live like that too. This aspiration is driven by the socioeconomic power symbolized by consumption of appliances. It is believed that lower socioeconomic strata must have a lower quality of life, because of their lack of access to highly convenient appliances such as the TD. The opposite is believed about higher strata: their material wealth must mean that they enjoy a higher quality of life. This leads to people rejecting the practices of lower strata, and striving to act more like upper classes, in the hope that the symbolic meaning of these practices has the power to

provide the quality of life associated with this socioeconomic group. These higher strata are seen as the performers of correctness and truth, through symbols of wealth such as comfort, convenience, and the good life.

Veronica speaks with her friends about TDs. She was one of the few interviewees that said she does talk about her laundry. She had a feeling of personal satisfaction in the fact that she has a TD. She understands that the upper class has appliances in order to have a “good life” of comfort. Convenience and comfort are understood to be gained by simply by the social and economic condition.

She claimed that her friends complimented and admired her for her ability to afford to buy a TD. She also expressed, however, that she felt her friends were reproachful of her tendency to flaunt this economic power. Therefore, she felt attacked by the compliments, which may be why her rhetoric classified the TD as a need: it was in order to avoid misrepresenting her social standing. From the sample, only two of the interviewees said the TD was a luxury good, while all the other interviewees, even if they did not have one, saw it as a necessary appliance.

Hiding the drying practice, a symbol of wealth and social status

Things perform as a social communicator of how high a quality of life you have. People compare themselves with others in their social circle in order to define happiness and success (Layard 2005, 41- 53). However, the TD, as an invisible article, reflects a stronger meaning, depending on the socioeconomic stratum in which it is performing. Because of its economic value and its embedded knowledge; the article reflects a status value, a socioeconomic value.

The hidden drying practice in higher strata creates a language, spoken by a thing that is not even visible to house guests. In these strata drying is an invisible practice and an invisible good. The whole idea of invisibility creates and communicates an image in this society that their welfare is excellent, that they have enough space for hanging clothes; or, that you own a machine that keeps everything organized for you. In the lower the strata the TD is a more obvious signal of wealth, because neighbors stop seeing clothes outside or in the windows. There is an immediate indication of change, effected by an appliance that represents economic wealth and social power.

Rafael Perez, who lives in a house from social stratum 2, made the following comment:

"At first when the color TV came here, you were someone important because you had a color TV, and this way with the TD, and if no one in the street has a TD, they will say: wow the neighbor washes the clothes fast and it dries really fast, so I think it does have a social influence because you need an economic income to sustain one, not only for buying one but for the energy costs. There's a social impact, wow the neighbor is doing really good, and he has on his house what you are supposed to have."

As we have been discussing before, hanging in a visible place in lower strata is accepted as normal, with the pragmatic purpose of searching for the sun and breeze. When people living here stop displaying their laundry outside, there will be an immediate reaction from their neighbors, who will know that something has changed. Changing their visible practice to an invisible one will symbolize that something improved, they could have bought a TD, and so their well-being is increasing. The idea of having what you are "supposed to have" is basically one social motivator for every social class for owning things and appliances.

According to the interviewees, houses need these common goods in order to have a good quality life: If you do not have them, then you are not doing well enough in life. Having things shows neighbors how your wealth is increasing. It reflects being able not only to support buying the good, but being able to consume the energy that it needs to function. This means you are able to pay the electricity bill and in this case the gas bill too. So, it is not only a matter of a one-off purchase, but it symbolizes economic stability through time.

Socially, hidden drying practice represents a better economic situation. It gives the carrier a social status and it influences the perception of others towards them. Lupe, one of the daughters on a household stratum two zone, supports Rafael's point of view with her comment:

"If someone here comes and buys a TD they will show it off, as if a well-class neighborhood, and if someone buys it, it is immediately a social event in the neighborhood, who bought a dryer. If I buy it, it represents that WOW that family is going through good things. And the friends go to their neighbor to dry their clothes at that home and watch the dryer."

For lower socioeconomic strata the TD symbolizes growth; it expresses an improvement in the conditions. The carrier of the practice is being able to show an economic superiority and a social status to those sharing their surroundings. It acts as a social performer by sending a message of improvement in the carrier's social and economic condition. This stratum compares itself with other strata's ways of practice. It makes the carriers fantasize about a way of practicing like higher strata, the underlying assumption being that this is the best way.

Even though lower strata view the TD as a good that gives you a social status, all except for one of the interviewees from higher strata denied this symbol. It is seen as a necessity, a useful tool, and not as a luxury good, because of its being invisible to all but the carrier. It is something that is economically accessible, and a common good in their social circle, and not something you should have to fight for, but something that you should simply have.

Only in one case in a higher strata neighborhood, that of Manuela Cepeda was the TD accepted as a luxury good. She has a TD, but does not use it. She supports these thoughts of a TD as a symbol of social status, and that even though it is an invisible article of the house it projects a powerful image of well-being:

"without any doubt, a TD gives you a status, having a TD is a plus, it indicates a higher purchasing power to the ones who don't have one, even though they are in the same social level, it does represent something, not for me... it is a more personal status and satisfaction, I have it there and I don't use it, how many things we have there and we don't give them a use... we are a consumer society, it gives status and comfort".

Even though Manuela says she does not desire the status that comes with owning a TD, and sees the item as part of a consumer society. The satisfaction of having a TD and being able to answer, "Yes, I have one but I don't use it," gives her a social power to say what she feels.

Living, being or having the feeling of belonging to a particular a social stratum is a determinant of how people relate with to surroundings. It encourages people to believe that those in a similar economic position are closer in status to them, as opposed to status being tied to another form of social relation. Barranquilla society is fond of showing off their own condition and wellbeing to neighbors and family. The TD,

although it is an invisible article, is not the exception. It has a social value because it symbolizes “personal status” that is recognized in the social circles in which TD consumers operate. Manuela has a particular condition where she owns a TD but does not use it because her domestic employee does not like it, which will be discussed further in this chapter. Consumption reflects a social status, and buys the dream of comfort and convenience

Clothes, car and the Tumble Dryer

It is fascinating how drying performed through a hidden TD is a socially recognized and understood way to communicate wealth, status, and a good quality of life by owning an appliance but not displaying it. In this way, the TD is the opposite of the car. When comparing a TD with a car, it is evident how invisible the TD actually is. "The car you do show it, but the TD never. Suddenly it is seen as something that is already part of, is not something that you go as to show off because you have a Tumble Dryer, they see it as normal, the car is evidenced by the price," Sofia Suarez. In high society, the TD is something not to show. The car has big role in social performance; it represents social and economic power. When we see a car in the street we read immediately these codes of wealth. Conversely, the TD is an indicator of similar social properties that is intentionally hidden from the visitors. The discussion above suggests that the reasons for washing inside are a bit more nuanced than from a social image perspective. According to the TD consumers interviewed, there is an assumption that it is an essential household appliance. The drying practices are not a subject of conversation when we socialize with friends or others in the same social circle. If there is a social gathering in the house and you bought a new car, the car would become a subject of discussion: What brand is the car? Where did you buy the car? How much did it cost? Does it park by itself? What different gadgets does it have? A TD, on the other hand, will not attract this curiosity. Or just imagine yourself in a party with your friends telling them: Hey I bought a new TD, come and see it. It fits so well in my space and wow the time saving. Did you know it has the capacity of 17 kg? It has different functions according to what you need to dry. Well I think I imagine more people bragging about a car than the TD. During the interviews, just four of the interviewees told me they have spoken about their drying practice with their friends. Even then, it was very rarely and with people with whom they have a very close social relationship,

and the purpose was basically just to recommend the use of the TD. Everyone said words to the effect of what Yismari Santos explained which was that people just “assumed that the same way we wash here is washed there.” There a lot of assumptions about drying practices, because of the invisibility of this practice. People just assume what others do, and what others want, and we speak freely about others' practices in order to legitimize our own.

This household appliance, the TD, is not an element that we display proudly as we would do with a car, even though they are both physical manifestations of social and economic power to not only to buy expensive articles, but to maintain their consumption over time.

4.3.3 Other socio-economic meanings

There are four more considerations of meaning: the economic value of the TD and energy consumption; the role of gender in the practice and its social meaning; the role of the domestic employees and its social meaning and the close social comparison between Miami and Barranquilla.

Although we understand in SPT analysis that the person does not consume because of a monetary system, but to practice; the monetary value of the TD influences the conditions in which the drying practice takes place; and its monetary value influences the social meaning. Among all the interviewees there is a social rule that women in this society are the ones in charge of ensuring that the household's tasks, including laundry, are done. This is not the only society that sees laundry as a woman's task (Shove 2003, 121; Winther 2012, 191-192). The second consideration is the social power given not only by the TD, but also by domestic employees. Household tasks are a role played by women and if they have a domestic employee, she will have direct control of the employee's actions. The last social meaning is in the comparison of interviewees comparing themselves with people living in Miami, USA.

Economical reasoning

Buying a TD is embedded in an economic context. Understandably, lower social strata have an economic restriction which will affect their access to the TD. Thanks to this

economic barrier, the TD has a social symbolic meaning gained by an economic power and its embedded knowledge. All the TDs examined in this study are powered by gas heat pumps, turned on by electricity, because of the high cost electricity has in the market. The gas TD becomes the only option for the consumer, because gas service has a comparatively lower cost: "The initial cost influences a lot; but the natural gas service is cheap, while the electricity is costly." Lucia Muñoz stratum 4, feels that if the TD were powered by electricity, as it is in other countries, the TD would not be as popular as good as it is today. It is common to find gas-powered appliances in Barranquilla, such as stoves, water gas boilers, and TDs. This influences the purchase process and selection of which appliances to buy, depending on the buyers' access to energy utility services.

Electricity powers air conditioners, which are the main source of complaint, made my interviewees with regards to the energy bills; especially electricity. So, if TD were part of the equation on the electricity bill, the situation towards the consumption of one would be different. When the interviewees said energy or light they meant electricity. Gas was seldom considered in the vocabulary, in the rhetoric as an energy service, even though the interviewees were conscious it powered so many appliances.

Besides, a TD costs between 500 and 1500 US dollars in a Colombian retail shop. Its high cost in the market, and the different ways to access one: like a credit from the retail shop or the bank; is an economic sacrifice that has to be done by the head of the household. Lucia Muñoz, middle class housewife, expressed her opinion about the practice of hanging clothes to dry: "Aesthetically it looks horrible, but there are people that don't have the possibility of buying a TD, because they are not cheap. I think it gives you a bad aspect to your house, like people that don't care, because they still have the need." They see the practice as not only the product of a social factor, as a lack of interest in the aesthetics of the house—and therefore of themselves—but also as a reflection of people's economic situation. If they hang clothes everywhere is not only because they want to dry their clothes, but it also reveals the fact that they cannot afford to buy and run a TD.

Until now only middle and upper class strata have been able to afford a TD, or to get access to a credit, even though the appliance is seen by TD consumers as a technology that everyone should have. It is viewed by TD consumers as a tool that needs an easy

financial settlement to be able to afford it, in order to facilitate the burden of work to lower strata:

"(...) I think it affects a lot and that is because people suddenly do not have the economic capacity to acquire it... I think that over time it should be economically accessible, because the easier access it is for a person, they will meet this need. And it is something it should be thought ahead."
As strata 5 Julia Sanchez, explained

Marta Juliao lives in a stratum 1 zone, she is a single mom, head of a family of three kids, and she spends most of the day out of the house working f. For her, having a TD would be—by her own admission—an excellent appliance to have. It would help her with the household tasks, but the costs are the main barrier to her having one.

"In my case I don't use it because I have no way of buying it ... if I had the comfort and good financial standing, maybe I bought a dryer, even with a courtyard. It is easier for one, even to work, I am a housewife and I have to work. With a TD one comes one day, I wash and I don't take much time, therefore comfortable is practical"

The purchase cost of a TD is too high for people who earn the minimum wage in Colombia, which is around 230 dollars a month. So the concern for lower socioeconomic strata is the act of buying one, as opposed to the costs of using it, because in these strata the public services bills are very low. The benefits provided by the TD are, in fact, most needed by people living in lower class strata because of their lifestyles. They spend all day outside the house in their respective jobs: it takes around an hour and a half for Marta to get to work. She starts work at 07:30 and finishes around 18:30, with a break time from 12:00 to 14:00. This means that she has to wake up around 04:00, to get her youngest kid ready for school, get her ready for work and take the one and half hour bus to make it to work on time. She works all eight, but sometimes nine, hours per day. Once she finishes, she has to take another hour and a half bus back home. When she arrives home is already 8:00 pm at night, sometimes later. Doing laundry for her at this time is really tiring, time consuming, and without sun it will be harder to get the moisture out of the clothes. So, of course she sees the TD as a useful appliance, as a need, that will make her life more comfortable.

Another family interviewed lives in a stratum 2 zone; they were also tempted to buy a TD. They have to take turns in fulfilling the laundry schedule, and sometimes the

clothes do not dry completely before the next family member's turn to do laundry. The constraints on acquiring a TD is that it is an expensive good, so the family have to consider many possible means to gain access to one. The mother went to the store, saw the TD and considered taking out credit with the store or from the bank in order to buy it. Ultimately she gave up the idea because she found out through talking to different people who own a TD, which “it doesn’t get the clothes completely dried out.” The number of people living in the house was the main reason they wanted to buy a TD, because they often had too many clothes to wash. It creates a

"Clothing traffic jam in the space they have (...), but it's a contradiction, because you have a number of appliances that supposedly makes your life easier but you have to work to pay triple in electricity, because of the appliances that make your life easier," as, Manuela Castrillon explained.

She had a very pragmatic thought about the capitalist idea of working harder for having more economic income and, therefore, being able to buy more and a greater variety of things that will be used during “free time”. This will create a sensation of wellbeing and personal satisfaction. However, at the same time, after purchasing these new things, you will need more time working in order to be able to pay for the consumption of these new technologies, and to be able to pay for this “free time”.

"TDs are expensive, so, you use this money on your daughter's school semester or you buy a TD." It comes into consideration that a quality education in a private university in Colombia is at least 2000 US dollars a semester, depending on the bachelor degree. So of course people will tend to prioritize whatever is the real need for them, buying a TD or paying for the education of their children. Their solution for the “clothing traffic jam” was, then, to organize a schedule in the house so everyone can do laundry and dry their clothes with the sun and breeze in the back yard, front yard, or balcony, and saving in the energy bill. Moving up the socioeconomic scale, the upfront cost of a TD becomes less of a concern, but the energy costs of running it over time start to become a stronger factor in decisions over whether it is economically viable to own one. "Having dryer and everything is faster but more expensive, energy is expensive in Barranquilla therefore the decision was made by economic factors, not for the cost of the machine, but of the energy," Ana Marin, who lives in a household with six people, in a stratum 4 neighborhood. She also said that the family has the necessary conditions to dry their clothes naturally and the space to do so. Even though they have the economic capacity

for buying the machine, it is the cost over time which made her choose not to consume one. The advantages of lower strata, with their subsidized public service and, therefore, low energy bills, determines that things can be used relatively cheaply over time, but the act of buying the appliances is what holds them back.

If we compare this to middle strata economic reasoning, buying the appliance is not their biggest worry, because they could have an easy access for a credit; but how their energy and gas bills will increase through time is a concern. Nonetheless, a TD is a costly appliance "when I bought it I made a big economical effort to buy it," Maria Quintero, stratum 4 said. Even here, acquiring a TD requires some considerations about how to pay for it, by credit or cash.

The higher strata interviewees could all afford the upfront costs of a TD, and could afford the extra energy that running one adds to their bills. The meaning they attached to the TD was therefore different to the meaning attached to TDs in lower strata. They also view it as an artifact that can save time, space, and provide comfort and quality of life. Because neither the upfront cost of the appliance, nor the marginal cost of energy, presents any sense of constrain to consuming a TD.

"Now within the elements that I think, people do not have a TD is because they fear a sudden higher bill into the energy consumption, they say, well, a dryer has a big engine and pulls more power and suddenly they over place the welfare, against the cost that may arise, however, I have noticed that when I installed the tumble dryer, energy consumption was not as excessive: nor electricity, nor natural gas; because the dryer works with electricity and gas, and then I noticed that the benefit versus cost did not mean much, there has been an increase of not more than 7% then I'm happy in that sense" Carlos Mejia, MBA, business manager teacher , strata 5.

Even though higher strata can afford the energy bills and the upfront cost of the appliance, they tend to search for better cost options. The differences in prices of public utility bills between high and low strata are large. Carlos was still conscious of the comparison between how much his energy bill was before and after acquiring the TD, and in his perception, the increase was not much. He thought that this increase was worth paying because of the benefits of welfare received through a TD. This makes the

cost of TD consumption in high strata not so much a constraint, but an analysis of cost versus benefits in the search for a higher quality of life.

The high upfront cost of a TD means it is harder to finance the initial purchase for people living in lower strata, which is one of the main reasons for none of these residents owning one. These residents never talked in interview about the public utility costs of consuming a TD, because of the subsidized bills in lower strata. The gas bill will not increase that much with a TD at home, because natural gas has a very low cost in Colombia. The middle class have better access to TDs through various loan mechanisms, but the higher the strata the more the interviewees talked about how saving energy is important because of the cost of energy. In the middle class, having a stable public utility bill is essential for household financial planning. In the higher socioeconomic strata conduct a more detailed analysis on the cost of the consumption of the TD, and weigh this up against the social status and comfort benefit it offers.

Middle class families can access credit in order to be able to consume a TD. The TD makes it possible for this stratum to do their laundry at any moment, day or night, regardless of the weather conditions, or how tired they are when they arrive home from work. Lower strata, on the other hand, are not able to access the credit needed for acquiring a TD; the only way is saving money for a long period of time or having a steady official job that could help them gain access to credit with the stores. So, the machine can help them with their household tasks and enable them to work besides household tasks in order to earn a stable income, which in turn allows them to pay for the different public utilities and the marginal energy consumption resulting from their practices.

Presumably higher strata energy consumption per capita is far higher than in lower strata. Considering they're the ones who all think non-stop AC and TDs are a necessity. But, one of my high strata interviewees complained about how much energy lower strata were consuming, and how this was all paid for by them, through tax-funded subsidies. In light of this, she was thinking about how to make lower strata consumption more responsible.

Men doing laundry

From all the interviewees there were only three men that participated in the interviews. One of them was by himself, and the other two were accompanying their wives. The man that was interviewed on his own was a taxi driver that lived in a stratum 2 zone, Rafael Perez. The other two were Alirio Santos, who also lived in a lower strata zone, and Carlos Mejia, from a high strata zone. Therefore, no middle class men were interviewed.

The division of household tasks between genders follows a common pattern, no matter the strata or whether or not they have a TD: women are the ones that do these tasks. Men do not get involved in any of these household issues. Even upon hearing that the interviews were about laundry and drying practices the men of the households would sneak out of the room and do other activities. However, these three male interviewees and their answers were very interesting, and provided good insight into the perception that men have of drying practice.

Alirio Santos is a father of three, and he explains that he rarely gets involved in the house tasks. He helps sometimes in cleaning some areas of the house, organizing beds, maybe cooking, and only in rare cases doing laundry, because these are woman's task. This notwithstanding, he has an understanding that roles in the families have changed, and that being a housewife is a personal and not a social decision. Alirio, when discussing ownership of a WM or a TD had a very masculine thought on his role with laundry. He said:

“what happens here , the truth, before, it was not as necessary because people had a different life here in this area, is that everyone (women and child) stayed at home, the only one leaving was the husband to work. But now, the woman, the husband, and the son go out to work.”

Everyone in the house searches for jobs. In fact, Yismari, his wife, is a teacher in an elementary public school and Alirio works in a community radio station. They are always at their jobs. As Alirio explained, before, when the wife stayed at home, she had all day to the house tasks, and laundry was just one more task to be performed during the weekdays. But today, she goes to work and when she comes back, she has to continue doing all these tasks. So for them having the TD would provide a large advantage in terms of effort and time spent on laundry, as well as symbolizes wealth. If

clothes are not washed, and washed properly, there will be a social judgment towards the domestic performance of the women of the household (Shove 2003, 119).

Even though this family has a WM, which is relatively easy for everyone to learn how to operate correctly and appropriately for the amount of clothes, Alirio still has unconscious habits based on traditional gender roles of families, and he will do laundry rarely, because in his mind it is a woman's role and responsibility. "Sometimes I need a sweater, hey, I need it in an hour, I have to go, and she gets the sweater to wash it and in about an hour or half hour the sweater is washed and dried ... and that's an advantage." As we can deduce, he was explaining the convenience of having a WM, but he also implied that his wife is the one that has to do these tasks for him, even though he is the one that needs the sweater. When these couples were interviewed, they also suggested how he liked how her mother did laundry because she had a special technique that left all the clothes, bed linens and towels with a particular enjoyable smell after they had dried. He never knew how to do it, but because he was always comparing it with his wife's practice, Yismari decided to learn the technique. She never mastered it, but at least she tried. He never tried to learn this drying technique, because it is not a man's job in his mind, but he still makes the comparison between his mother-in-law's and his wife's drying practice.

The other man was Rafael Perez. His long working hours as a taxi driver make it complicated to be at the house, and he sees all the household tasks as something women are the ones responsible for. He has never used a WM or hanged his clothes because that is not a task that men should do. He has a sense of control because of what he can provide economically to his family, but he won't do any of the tasks at the house. He has this feeling that technology makes life easier.

"(...) the human beings have to take care of themselves, even more women, the less effort women makes longer their life is; because they will make less effort. The TD helps human beings in being people of good, in the sense that it will take care of your health, like the wife or any other person dedicated to do laundry."

For him the TD has this meaning of a better life, of being in healthier, because of the less effort required by women when they do the laundry. He has this understanding of a longer life because of comfort, and being "people of good".

Carlos Mejia, who has an MBA and lives in a higher strata zone, supports this thought. He explained to us about the different opinion his wife and him had about the TD when they acquired one. His level of education and his socioeconomic stratum is not a catalyst for him changing his perception of gender roles. He saw it as his job to provide a TD for his wife so that she could manage the laundry more easily, as opposed to just deciding that he could help her with the laundry; “My wife, in the beginning didn't strongly agree with buying the TD, but what I did was, go to the warehouse when it arrived, I said: there's a TD that I bought you. Then she told me, but for what? And now she is happy.” He included himself in the equation of why he bought it, as a benefactor of the machine but not as a user, when he explained that it was now easier for him to go to his softball matches, and not worry about whether the uniform was dirty or not, because in an hour it will be ready to use regardless. Being the provider gave him the social power of the strong male figure.

It would have been interesting to interview a single man in the city and how he did the laundry. Unfortunately, I didn't have a direct interview, although one of the interviewees actually provided an insight into her single 30-year-old son's laundry practice. He works and lives during the weekdays a couple of hours away from Barranquilla, and he comes every weekend with his dirty clothes. He does laundry at his mom's place, where the domestic employee will take care of washing and drying his clothes with the WM, but the clothes will dry by being hanged in the laundry space. Laundry is the practice that will be the last everyday task to stop being performed at the practitioners' parents' place.

The gender roles in the city are still marked by this idea that women are responsible for the house, even to the extent that these men have never used a WM or TD before, because of the entrenched gender roles and perception that household tasks have. Nonetheless, men still think about how to supply their women with the required tools for making the job easier.

Domestic Employees

It is very common to find domestic employees in the higher strata of a Colombian city such as Barranquilla. Domestic employees has strong symbolic meaning of social and economic power (Shove et al. 2012, 135; Røpke and Christensen 2013; 55). Many low

income towns surround the city of Barranquilla. This motivates women from these towns to find jobs as a domestic employee in high socioeconomic strata households in the city. Some are permanent residents of the household; others travel in to work every day.

From the seven households that were interviewed in high strata six had a permanent domestic employee in the house, with their weekends off, and one of the households had two permanent domestic employees. These women are the one who do most of the tasks concerning cleaning and organizing the house and every room, taking care of the children, cooking activities and, of course, laundry. In middle class strata, only the ones that were interviewed in stratum four had employees. Four out of six had a domestic employee, but they were not permanent, they came to the house for work for the day. None of the stratum 3 households had domestic employees. The social interpretation of domestic employees could be an interesting study to development for future analysis.

From the 10 TD household consumers; seven of them had domestic employees. As one of the interviewees from the lower strata said: "More affluent people purchased them to avoid fatigue, but they don't even do this task themselves because they have a domestic employee" Lorena Pachon. It once again raises the consideration that there are other reasons for why families have a TD besides the effort and time saved by these machines. It also projects an image and a status. When adding a domestic employee to a TD, the social projection of wealth increases even more.

Domestic employees and how they use the TD, was only discussed briefly during the interviews. The domestic employees were not interviewed for methodological, as the owners of the TD and the households are the practitioners, even if they don't do the task as if. There were also ethical reasons on not creating a conflict with the household owners. But it was very common for the interviewees would bring up the subject without being asked directly about it, but when I asked: who does the laundry. They normally relished having people do it for them. The employer will always refer to themselves as the one in charge of the household tasks, and sometimes even say that is them who do the work, even if it's the domestic employee who did the actual work.

The TD also symbolizes an employer that takes care of their employees. One of the interviewees talked about the relationship between her domestic employee and laundry.

She recounted how she will say to her that the WM and the TD are the reason why the towels and bed linens are never as white as she wanted them to be. According to the domestic employees these “machines damage the clothes”. However, during the interview she also said that one of the reasons for having a TD was for the benefit of her domestic employee. When she has a lot of work in the house, she can leave the machine running without worrying about the task; while she organizes and fixes other tasks about the house.

One other interviewee said that her domestic employee never uses the TD, even though the household has one. She did not feel comfortable with the heat that the machine produces. She preferred drying clothes using the sun, “Here she (the housekeeper) likes drying clothes naturally, if it’s not with the sun it’s with the breeze,” as Manuela Cepeda psychologist, living in a high strata neighborhood, commented. The decision regarding how to do the task depends on the one performing the task, but of course also taking into account the house rules, which reflect the way the employer likes things to be done. So, in this particular case, if the domestic employee does not want to use the TD, that is her decision. She cannot dry the clothes on the front yard or even the back social yard, but on the breeze corridor where the sun hits hard enough for drying clothes during the afternoon. “Yes, I do have a TD, but we use it rarely, it has to be raining or so, it is a gas TD. But it has to be raining, and it is not because I don’t like it, it is because my employee, she doesn’t like it, because it produces too much heat for her.”

Still we see there is a big link between the consumption of TD and having an employee in the house. The subject was always brought up when the interviewee had an employee. She always relished the idea showing some kind of social power and control over things; it was even more noticeable than with the TD. One of the curious things said in reference to the domestic employees was when people were asked about who was in charge of the household tasks of laundry. All of the time, in every strata, it was the women who held this responsibility; but when in higher socioeconomic strata, it is impressive how they will always say they are doing the task, when in fact it is the domestic employees. Having a domestic employee carries with it a social meaning that causes the employer to perceive that they have a higher social status as a result of this relationship. The association between the person responsible for the house tasks and the actual person who makes performs tasks—the domestic employee—is an important

aspect of the social roles and codes in this society. It could be a subject of study in social research, dedicated to the role of domestic employees and their tasks..

Miami; the thought to be

Something interesting in the opinions and thoughts expressed by the higher strata zones was the idea of trying to resemble a practice from somewhere else. Carlos Mejia highlighted an issue that is very common in the mind of the people of Barranquilla. Society wants to copy practices and infrastructure of a nearby city from the USA, Miami. From Barranquilla, it is a two hour flight to Miami, and it is a very common holiday destination for higher strata families. During the economic recession towards the end of the '90s, the “American Dream” was followed by many. This constant moving of people made Barranquilla very reciprocal to Miami’s way of doing things.

According to the professor and architect Wilhelm Hasselbrinck in his interview, Palm trees replaced the local trees in new plantings and parks, the design of houses and windows changed for something that was not practical for the climate of the city but “looked nice”, closed gate communities became popular and household appliances became more and more common. Carlos Mejia told us how he learned from Miami’s example that TDs are an exceptional appliance that will change drying practices and offer a better quality of life.

"(...) the machine I have seen them eventually in some apartments, and this is a culture above all, Yankee. In the United States, the dryer, is a basic element, washer and tumble dryer, and it makes sense because people work 10, 12, 14 hours, comes home and immediately has to solve the problem of dress (...) following the knowledge I had of the United States, I tried to implement something that is practical, and noticed that the dryer is like an allied member of any family, either home or apartment.”

Even though people have different ways of practicing within *habitus*, they follow other examples from other places, believing the way others practice is better, because they practice in an economically developed country. This culture tends to follow examples of developed countries, and take their practices thinking they will satisfy their needs. People believe the way families in the United States practice is the example to follow, because of their reputation for being practical.

The Barranquilla society has great admiration for outside cultures, because of the long history of immigrants. This impact this has had on society is that it believes that other ways of doing are better than theirs. "(...) the truth is that here in Barranquilla we have enough friends, and hardly anyone has dryer, but in Miami, you go to any house and they all have." As Giovanna Char, housewife, expressed. Even though she moves in a high strata society, she says that not many people TDs (as the sample of this thesis actually confirms, because most of them are in middle class strata), and she makes the comparison with Miami, and how it is the most common appliance, much like the refrigerator or the WM. Carlos Mejia says he is always trying to make his friends buy a TD, because of its symbolic and pragmatic value. When he bought it, the person he consulted with was his son, who lives in the United States and congratulated him on this new acquisition.

4.3.4 Discussion and conclusions in: The Symbolic Meanings of the drying practices

Everyday practices have tacit meanings, which are barely discussed, but are assumed to be general knowledge. The way a carrier practices will project codes, messages and representations of their social enactment. Drying practice in Barranquilla has social rules, which are not discussed in any detail by carriers. They are still observed however, through every social stratum. Practice represents values, culture, education, wellbeing and socioeconomic power.

The way of practicing symbolizes a distinction of class. This distinction in this city has a very strong agency in the practice. This section explained how the power relations of this society and the social meaning of practicing are very strongly related. The higher the strata the carrier belongs to, the stronger the relationship between maintaining, showing and/or preserving these meanings of wealth, culture and education.

People from lower strata, meanwhile, even though they know about these social rules and the social symbolic meanings of different practices, will still hang their clothes in spaces not considered acceptable by middle and upper strata, because of pragmatic considerations. They are not looking for a more sustainable way of practicing, but they are looking for some of the advantages that TD users have. They want to be able to dry their clothes as fast as possible, in the best space to do so. They are able to sacrifice

their perception of aesthetics and of socially-accepted practice because they accept their socioeconomic circumstances.

Everyone in this sample accepted that the practice of hanging the clothes damages the aesthetic appeal of the households, although it will be socially accepted if it is done in the backyard. The more hidden the practice, the more accepted it is.

This practice of hanging clothes: socially-defined as aesthetically unappealing; which has been performed for thousands of years, has been reshaped by a new technology that consumes energy. It has been transformed it into a hidden drying practice, providing the social advantages of its embedded knowledge. Additionally, practicing with a TD has a meaning associated with wealth and social status.

Something as simple as drying clothes is read by society in a wide variety of ways. It is a practice that can represent, within one community, a social stigmatization or an acceptance. Drying practice has a social manifestation that mirrors separation between classes.

Lower socioeconomic strata hang clothes in visible spaces, because ultimately the most important part of doing laundry is to wear the clean clothes that have dried properly. Higher strata, on the other hand, which own clothing which constitutes a socioeconomic status symbol, believe that clothing hung in a visible place detracts from symbolic socioeconomic status. Their preferred space for drying, therefore, is in an invisible space.

As Clothes are a social communicator they need to be washed and dried in order to be used. When we walk in the street with the clothes on, and everyone is able to see them, we display them and we are proud of them because they reflect a personality and social status (Shove 2003, 121). But when it comes to washing and drying, the higher the aspired to social status, the more the practice is performed in a hidden space.

This section also explained and analyzed how people will accept the way that drying practice is conducting according to the socioeconomic strata in which it is performed. If carriers practice their way in a strata that is not theirs, this will encourage a social rejection by the community. While if they practice in their neighborhood, neighbors will find it normal, and people from other strata will also accept it, because it is done in

these areas and not in their strata. There are social rules of practice demarcating different socioeconomic strata.

A sustainable practice, such as hanging clothes, will be interpreted as a lack of respect for others if performed outside of these social and socioeconomically stratified codes of conduct.

Another main point in this section was how the different socioeconomic strata see the relationship between neighbors and family members as a very important component of a “normal life”. The social context here is the search for approval and admiration. Gossip between neighbors is very common, so when something as visual as the drying of the clothes in the front yard changes, the perception of wellbeing increases in their social context. It suggests that the person who is no longer hanging their clothes to dry is now able to dry the clothes with a TD.

This section also analyzed how the economic capacity of the household becomes a barrier to the TD performing in the drying practice. Because of its economic value, the TD will have a bigger representation of value in a social context, because owning one will be based on a decision to invest in a TD but not something else, such as education for the children.

One other important point in the drying practice is the gender relations that factor into the practice. Women are the main carriers. Men see this practice as a woman’s task. For a man to practice drying the clothes would symbolize a loosening of his role as provider of the household, a role which makes him believe that he is not responsible for household tasks. Men see the consumption of the TD as a means to improving the socioeconomic wellbeing of the family, but not as a tool that they will be engaged with directly.

The last main point of this chapter was the influence that proximity and cultural ties to the city of Miami has on practice in Barranquilla. The highest strata commonly visit Miami for vacations. They tend to model their practices on what is done in this city. They see Miami as the future, as an example of how to practice correctly. It seems, according to the interviews, that TDs are very common in Miami. So, carriers took this example of practicing, and copied it in order to practice more like a developed city.

This chapter has shown how the social meaning and rules of the drying practice is a very influential context in decision making concerning how to perform a practice. If things are not done according to these social rules, there could be a social rejection.

The sustainable practice of hanging clothes is being absorbed by its meaning and connections to lack of culture, education, and poverty, while at the same time the unsustainable practice of drying with a TD has been transmitting a meaning of improvement in the wellbeing of the household.

4.4 Discussion and Conclusion on the Elements of the Drying Practice

This chapter has been discussing separately each of the elements in drying practice. It has been comparing each element with for both practicing by hanging clothes and by using a TD. It has also explored the influence of the legal socioeconomic stratification of the city's population and the *habitus* of the practice.

“Practices are defined by interdependent relations, between materials competences and meanings” (Shove et al 2012, 24). The drying practice consists of all these set of activities that will connect, as Reckwitz explained it, as a block of interconnected elements that rely on each other in order for the practice to exist.

This thesis understands drying practice to have been influenced by a new technology. This is leading to a change from a sustainable to an unsustainable practice. In the Figure 3 we are able to see the elements of the practice of drying by hanging, and by performing through a TD.

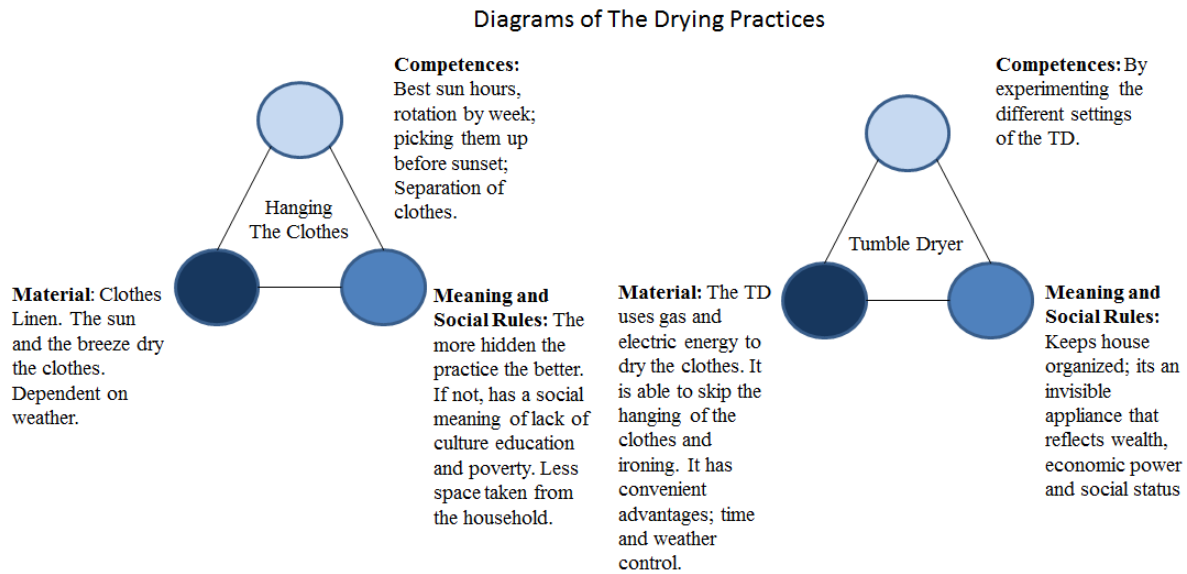


Figure 3: Elements of the two drying practices. Ref. diagram: Shove et al.2012, 25; 29

When links are made the practice is able to perform in a dynamic way. They are able to shape each other in order to change the practice (Shove et al. 2012, 33). When technology was able to embed its convenience into the practice, the links of the practice of hanging the clothes started to break. A new technology was included in the drying practice, and had a big influence on the meaning and social rules of the practice. The competences required for using this new technology are not difficult skills. Just by experiencing trial and error, the different settings can be tested.

The TD has the advantage of skipping the hanging of clothes. This ability is what makes it such a convenient appliance. Now, the carrier is able to change the routine of the practice. It gives the carrier the power to be able to perform the practice at any moment, even if it is raining or night time. It simulates the ability to control time, by providing the certainty that clothes will be dried when the cycle is over. As the drying practice has a social rule which dictates that the more hidden the practice is, the better, the TD was perfect for setting itself up as an invisible appliance. The space needed for the machine is relatively small, compared to the space used when hanging, so it can be placed in a small location out of sight of every social area.

Its economic value also provides social status. The restriction to performing the drying practice with the technology is the cost of buying one, and, depending on the strata, will also have an implication for the marginal cost of energy.

The dynamic of drying practice was able to change because of the engagement of the carrier with a strong material agent. The TD has a strong agency in the practice because it has a direct connection with the social and economic symbolic meaning of the practice. It represents wealth and quality of life and good manners, as it is able to perform the practice following the most important social rules of the drying practice in Barranquilla: to keep drying clothes out of sight. Besides, the skills that carriers need for being able to perform with a TD are very simple, and can be learned through transferable knowledge from one person to another or by experience, trial and error. When there is an engagement of the TD with the practice, the dynamic of this element of the drying practice changes.

This chapter is a description of the different elements of practice. They were analyzed separately, to be able to understand how the connections and breaks are made between the elements. Practices are able to change, and persist. But in doing so, the understanding of the elements and the dynamics of their interactions, must be used in order to point change in a direction that promotes or maintains sustainable practices. With these two ways of practicing we can see the important agency that the TD has in drying practice, as it has a direct relationship with the meaning and social rules of the drying practice, and the practice of hanging of the clothes.

Time and space are what hold together the drying practice. The next chapter will describe how these influence the elements in drying practice.

5 The Convenience of the TD in Time and Space

Throughout this thesis perceptions of time and space have emerged as recurring. Through their position and the perception of time and space the carrier enacts the circulation of the different elements of practice (Shove et al. 2012, 128-128; 132-133; 134). Time and space hold the drying practice together; it gives it a location and a reason to perform. Time-space “is key to the organization of social life” (Schatzki 2009, 38)

The TD has an embedded knowledge, which simulates controlling time and space. This controlled space and time gives the practitioner a social status, and allows the person to be to perform other activities, and to use the spaces for other practices. Practices compete for time and/or space, but practices are also able to “make” time and space (Shove et al. 2012, 127; 129).

The embedded knowledge of the TD provides the carrier of the practice with abilities to practice differently. This different way of practicing, changes the routines and schedules. It changes the social meaning of hanging the clothes in visual spaces and gives a social value to the consumption of the TD, because of the time- and space-making qualities.

When talking to the different interviewees, it was noticeable the idea of how the drying practices is held together by time and space. Interviewees were not conscious of the elements of the practice, but they couched their consumption decisions in a time and space analysis.

The space factors got most of the first attention for the motivation and decision regarding TD consumption; but time was always part of the discussion. “With the sun in Barranquilla, time really is not a major factor because it is done very quickly,” explained Magola Ramirez, from a high strata neighborhood and who does not have a TD. The drying practice of hanging clothes on clothes lines is not considered to be an exhausting exercise, or hugely a time consuming one, although it takes a large amount of space in the households.

Removing this hanging step of the complete laundry practice, by the consumption of the TD, is what people consider time-saving and a space-giver. The TD allows the carrier to have the household organized in an everyday basis and be able control time and its schedule. No one complained about the effort of hanging the clothes or about the period of time that it takes to do this, but about space lost in the practice.

This chapter will start by addressing the concept of time and its relation to drying practice. It will continue with the concept of space, and how it influences the consumption of the TD. This chapter will finish with a discussion on the relationship on the drying practice within time and space.

5.1 Making time out of the drying practice

The carriers of the drying practice in this thesis perceive time in a succession of actions; one after another, which organize the practice (Schatzki 2009, 35). Therefore, the interviewees were able to differentiate between two different understandings of time invested: by counting the minutes spent in the practice; or as steps to complete the practice. The interviewees also agreed that the time invested in a practice cannot be invested in another; some practices take more time and require more attention than others (Shove et al. 2012, 127).

Time can be consumed and/or can be made by practice (Shove 2009, 17). Time has a strong relationship with the embedded knowledge of the TD, which reflects a social value, as we have discussed already. When practicing with a TD, there is a certainty that the clothes will be dried by the end of the one/two hour cycle of the machine, depending on the amount of clothes and the capacity of the machine. The TD gives you control and the certainty that things will be done in the time programmed.

The TD also creates the perception of making time. When seeing the practice as steps the TD eliminates one step of the drying practice and one step of the laundry practice: the hanging of the clothes and ironing. By hanging the clothes, you actually have to separate the clothes and put them on the racks and then wait for the sun to do the job. This means one more step in the process of drying. It also means a dependency of the sun to make them dry, without a certainty of when it will be dried. The TD also eliminates the practice of ironing. The clothes come out of the TD warm enough that by

just using your hands they will be wrinkle-free. But is the TD a time saving appliance that is able to make time?

Even though there is a general a perception of the TD as time-saving appliance (Brencic and Young 2009, 2859) which is able to make time for other doings, we have to take into account that there is always a moment in the drying practice where the drying of the clothes has no interaction between human beings and clothing. This means that there is always a waiting time. In the case of TD users, this is the moment when the machine is heating the clothes; and for the hanging practitioners this is the moment when the sun is drying the clothes.

In our case study, the sun is very intense, so all of the interviewees suggested that clothes in the sun dry in around one hour, and that it helps with the wrinkles of the clothes, just as the TD does. Martha Juliao explained that when hanging the clothes, *"(...), drying will last around one hour by hanging, and to hang everything is around 10 minutes."* The time spent drying by the TD is dependent on the amount of clothes, but is usually one hour. Following this they are picked up, folded or hanged in the clothes hangers, and organized in the closet. However, when the clothes are hung up, carriers have the habit of leaving the clothes hanging during the whole afternoon, to make sure it is completely dried. If we combine the sequence of steps with a quantifiable metric: the step for hanging will take around 10 – 15 minutes. If we use the TD for the drying practice, we will be able to save these minutes from being consumed and time is made for performing another practice.

The TD has the advantage of the timing being certain. The cycle of TD lasts an hour and this is certain, while the time for drying by hanging of the clothes is relative to the intensity of the sun. The household appliance is helping carriers to optimize their time, making the TD a convenient appliance.

"The only thing I noticed is that it works pretty well with time, the machine in an hour has dried the clothes, in this case 16 pounds and a little more, much faster, one finishes quicker the house tasks and the employees leaves everything organized and kept faster, as an optimization of time, that to me is important, because what we need; and it seems incredible, it's time." Juliana Sanchez commented.

The machines offer the certainty that things will be ready at an exact moment. This will let the carrier organize the day's tasks in a proper way, and be able to perform other household tasks. Still, regardless whether the drying practice is performed by hanging clothes or using a TD it will always take a minimum of half a day. All the drying practice carriers are in habit of separating clothes for washing. This means that they will do more cycles of washing in one laundry. This step, plus the habit of leaving the clothes hanging during the afternoon after they are dried, makes the practice take the entire day.

Even though the ability of the TD to have things ready within a certain time was found by the interviewees to be a possible asset; Julia Restrepo saw this aspect as a negative condition of the TD. For her the use of the TD will cage her time, making her a prisoner who is dependent on the TD finishing its work, before she is able to go out of the house and perform other tasks:

"Time is very subjective; if I want to muddle through, maybe yes, but if you have other occupation. Then you have to be aware of the machine when it ends, for me it's a waste of time actually... I think I loose less time when hanging than by a TD ...I hang them up and that's it, but if I have to do it with TD, I don't necessarily have to be there. But I do have to be aware of the cycle, however if I hang up, I go out and that's it, if I get into the dryer I have to be aware when it ends, and I have to take some time to be aware of that."

Time is a perception of our own reality, and we will see it relative to our concerns and beliefs. She feels she has to be aware of when the machine finishes its work. If she leaves those clothes in the TD after the cycle has finished, the clothes will be full of wrinkles and start to smell bad. Hanging clothes up to dry, on the other hand, is just a question of the 10 minutes that it takes to do this, and then she can leave them hanging there as long as she wants to.

As she dries her clothes under a terrace roof, but where there is enough exposure to breeze and sun for the clothes to dry, she is not worried about the rain. So, she feels she can leave the clothes hanging as long as she wants until whenever she feels like to picking them up. Regardless of whether it is by the end of the afternoon, or in two days' time, it is completely fine with her. The drying space is situated where no clothes can be

seen from the outside, and, therefore, she is not worried about damaging the aesthetics of the building.

She uses clothes hangers for the shirts so that after they are dried she can immediately hang them in the closet, meaning just some of the clothes have to be folded. This means that the hanging step that is ostensibly being skipped by the TD is not in fact being skipped, but being postponed. Eventually, clothes in the TD will have to put on clothes hangers after the TD cycle is over. In this way, Julia does also skip a step when hanging her clothes to dry, just as TD users believe they do by not hanging their clothes up to dry. This is why planning is essential if you do not have a TD.

These different opinions are examples of the relativity of time perception in a social practice dynamic. While the simplicity and the skipping of steps when performing with the TD shapes the perception, among some people, of it as a “time-saving” appliance that is able to “make time,” others believe that it is not true, and that time can be saved and optimized by hanging the clothes, instead of having to be aware of and dependent on the TD time cycle.

As we have discussed, in both cases of drying practice, during the actual moment of drying, there is no interaction with the drying of the clothes. So, what are we doing during this time?

5.1.1 Time rebound effect

Practitioners are able to acknowledge the time-saving benefits and characteristics of appliances by using this time when the machines are working to perform different activities (Brencic and Young 2009, 2859). If we compare the drying practice with the practice of washing the clothes the difference in effort and time spent is clearly apparent. When washing clothes, the carrier must scrub dirt out of each single item of clothing. This requires a lot of time and effort. Practicing with the WM on the other hand,; you just put everything inside and the machine will do the hard work, and it will take around one hour, depending of the machine. The WM is able to create a reasonable amount of time compared with the traditional way of doing laundry. This difference is a stimulus that can actually be seen in the sample for this thesis, in which everyone had a WM.

When it comes to drying practices, however, whether hanging clothes or practicing with a TD there is a period of time when there is not effort required by the carrier besides waiting for the clothes to be completely dried. As we mentioned before, the time saved or made by a TD is 10 – 15 minutes that it takes for the clothes to be hang up to dry. As waiting is not always a desirable option, carriers want to be able to take control and make time out of practices that can be used to perform other practices.

Claudia Olaya says that “while the TD is working I can do other things during this time, like painting, but if I had to hang everything, I would lose a lot of time.” She wants to optimize this waiting time by being able to do other things.

The carriers will not stay watching the clothes spinning in the TD, or stay watching them hanging until they are dried; as they are in their households. So they invest this time in something else. Sometimes, this will be in leisure practices, such as: watching TV, reading a book, computer games, or board games. Sometimes it will be in other household practices, like cooking, cleaning the floors, organizing a closet, and sometimes people need to go out for work or to perform any other task outside the house, like paying the electricity bills, going to work, buying food from the grocery store and so on. The way we are “reallocating time” during this period of no interaction can be spent in other energy-using activities, increasing the overall consumption of energy; this is known as “time rebound effect” (Brencic and Young 2009, 2859).

The TD is an appliance that uses energy produced by natural resources for drying the clothes, while hanging the clothes does not use any power source other than the heat of the sun. This means that the “time rebound effect” of the TD versus the hanging of the clothes makes a big difference: one is going to double the energy consumption, while the other could introduce energy consumption during the waiting time. Just by using the sun's heat, instead of more energy, the rebound effect would be reduced.

5.1.2 Discussion on time and convenience

Technologies which replace human work with machine work are viewed as convenient by the carriers of practice (Shove 2003, 178-179). The consumption of energy is encouraged by this convenience. Convenience is being able to spend only two minutes passing the washed clothes from the WM to the TD, rather than the 10 minutes it takes

to hang the clothes up. I have to clarify that these times are only estimates and perceptions, because none of my interviewees quantifies the time of any of those steps, they just thought and picked up a number when asked. However, if we take the estimated times as measurements, and we subtract from the ten minutes it takes to hang clothes the two minutes it takes to pass clothes from one machine to another, they are actually earning a convenience time of eight minutes, and this is precious.

One of the interviewees, Ana Marin's, suggested that we as a society understand that the goal of life is to make life simpler. People want to be able to gain access to time. People want to be able to do things while the household tasks are done by these machines:

“The more your everyday life becomes easier, the more you can save time and move on other things. Work doesn't let you stay at home for doing house tasks. So, having all these machines is convenient, because you have access to other activities of the house while you're washing, you may be cooking or cleaning the house. Even though, what it takes me to hang the clothes is not much time”.

How much time has been earned to do other activities is how technology represents its economic and social power. Technology creates the idea of earning the “freedom” of choice. We are receiving eight minutes for going to bed and watching TV, eight minutes of cooking time, eight minutes of reading, and eight minutes to share with family. These eight minutes of freedom of choice on what to do next is what TD consumers and non-TD consumer want to have. People want to use things that save time, not primarily to convert to other tasks.

We are motivated to act by habits in a system where the important thing is to produce economically, to be able to afford the machines that will make us practice in order to earn time. It is about being able to afford technology that will assist with these household tasks, which does not add economic value to your time, but has social value, and adheres to social rules.

Earning convenience time will create the temptation to consume more energy, and the obligation to produce more economically, so you are able to pay the energy bills and buy more technology that will continue with this convenience timing cycle.

As it was highlighted earlier, everyday technology appliances are being increasingly seen as a necessity. We are pursuing having machines to do our tasks to be able to do other tasks, until we find another machine that will do this task, in order that we can do another task. We require time in order to gain more time (Bourdieu 1984, 94). Society is starting to view everyday tasks as a practice that should be performed by machines and not by human beings.

The offers of appliances are unlimited, from WM, TD to dish washers, from vegetable cutters to foot massages. The less effort and the faster things may be done in the house, the more comfortable the house is, the better the quality of life is perceived to be, and the better the social image that is reflected; just as Sonia Rueda explained:

“Sun drying is better, but it gives me a better quality of life to be able to be lazy. Quality of life is not having to stand there waiting for it to dry. Convenience is to leave and come back and knowing that everything will be ready but you're not completely pending on what is happening, to let the rice in the machine and know that you can go, and when you come back you know it will not be burned, is able to be lazy.” Sonia Rueda commented.

Sonia sees the TD and different appliances as time controlling machines, which free her from having to organize household tasks. Technology provides a convenient time that could be consumed by leisure or working practices. Carriers do not want to be dependent on household tasks. How much convenience time a carrier has is dependent on what they are able to afford. Sonia, as with all of my interviewees, enjoys social company; her backyard is the perfect spot for her to have barbeques with friends. Technology buys social time and interaction; the laughter with friends and family, the fun karaoke-margarita nights and, especially, the freedom to feel lazy.

Time was one of the most mentioned elements discussed during the interviews. Whether it was a time saving/making appliance, a simulated time controller for the weather, or a convenience time giver, time is a currency that drying practitioners are trying to earn. They want more time for being able to practice other activities: work or leisure. They want machines for doing household tasks because they “(...) don't enjoy laundry, maybe taking care of the garden, but doing laundry gives me no pleasure,” as Maria Quintero expressed. They want less time spent on household tasks and more time for performing other practices.

It seems that practices which are not synonymous with pleasure will be replaced by convenience machines that are able to make time. This is not a normative statement, although people should be able to use this gained time in the full awareness of their responsibility for their energy consumption.

In which practice the drying waiting time will be used depends on each one of the persons. There are too many options to see a pattern. However, were we to decide to reduce our energy consumption during this period, it would be a considerable contribution into a more responsible use of energy resources.

5.2 The space of practice

“Of course it is about space,” stated Sofia Suarez, a journalism student. The efficient use of space in a flat was the main argument for consumption of a TD by the interviewees. From the 10 people interviewed that had a TD, six of them live in flat. From the 11 interviewees that have no TD, 10 have a backyard. Having a patio or living in flat, based on the sample interviewed, influences practices surrounding TD consumption. Households are the place where we as individuals interact the most personally with a defined space. “The house is a synonym of who we are. Just tell me how you live and I’ll tell you who you are.” Claudia Olaya, housewife expressed.

Architects through the design and house owners through social rules, set the norms of the rooms on what they are supposed to be used for. Every room of the house has its own personality. Every practice that interacts with the household areas will be a reflection of how lives there are organized. If practices are performed in rooms that are not meant to be for that practice then society will consider that the person is not able to follow rules governing where he or she lives. Therefore, their life is also disorganized. But, if they are able to follow the internal household rules, use each room for what it is meant for, this will symbolize order and control.

Appliances such as the TD are able to adjust these systematic rules of social order, and be accepted by everyone as a feature of what is considered a “normal house”. We want to have access to the spaces in household not only for showing control but also to enjoy them for what they are meant to be. The relationship between space and convenience corresponds to where I can put things that will not disturb the purpose of the rooms

when practicing. The TD allows the carrier to not only “make time” but to “make space”. By eliminating the hanging of the clothes, the spaces that were previously being used for this practice will no longer be needed for this. Appliances give spaces availability for other practices.

This section will describe the different answers and perceptions that the carriers of the drying practice towards the use of space. It will first describe and analyze the perception of using space in a correct manner, and the social meanings implied. It will continue with the use of the designed space in flats.

5.2.1 The correct space for the drying practices

Households are designed with different rooms that are meant to be for specific practices. There are rooms to practice sleeping, cooking, social gathering and laundry. The way we use these spaces will symbolize order, control wealth and socioeconomic status (Bourdieu 1984, 257).

Juliana Restrepo compared drying clothes in the terrace with a proper laundry space. She considers practicing in spaces that are not meant to be used for certain things, like drying in the terraces, gives a bad impression. There is nothing wrong with hanging clothes up to dry per se, but the place where they are hanged is an important element of the practice which carries significant social meaning, and is governed by social rules and norms.

"The terrace is seen by everyone. And aesthetically it looks ugly. But, if you go to the kitchen; there is a separate room, which is the drying zone. Your mind is conditioned to accept it, that's the place for this. But your mind is not conditioned to see an ugly sight like that having the clothes on the terrace."

The drying practice is governed by the social rule that it ought to be held in the laundry room or in the backyard. The laundry room is usually found besides the kitchen in a hidden room or corridor. It is a space where the sun should be able to shine and a good circulation of breeze is possible, so that clothes are able to dry properly. This room of the household is hidden from visitors, and has no connection with any social spaces. In houses with a backyard, the laundry room will be separated from the drying. The backyard is ideal for drying: it is as an open area where the sun and the breeze can dry

the clothes without interfering with the outside aesthetics of the household. The interference with the aesthetics of the household has social meaning, as was discussed in section 4.3.

One of the interviewees, Magola Ramirez, from a high stratum sector, lives in a house with two patios, one dedicated to social gatherings and the other dedicated to laundry; she doesn't have a TD. Her main argument for not having one is that she has enough space for drying in the backyard, and TDs are more common in flats.

The space dedicated to laundry in her house can only be accessed through a small corridor beside the kitchen or through the social backyard where you will find a small door. It is a hidden place where drying practices are conducted, but it is never visible to visitors. It is very common to find these two patio houses in higher strata neighborhoods. From the three houses in strata 5 – 6 in the sample, all had two patios or a breeze corridor for drying their clothes. Although 14 out of 21 households in this sample have a patio, which is already a discreet area of the house, there will be a continuous search for a more discreet space for hanging the clothes. The higher the strata, the more hidden the laundry space is.

Having guests in the household, and projecting the image of the occupants' life and home, is an essential social function of the household. People organize social gatherings to interact with others of the community and in their social circle. When these guests are in the household, there is a tendency to have it clean and organized.

Laundry is moved out of the social areas in order to create space, and make the house look impeccable: "if the visit is for long time, most likely I will pick up the clothes and won't leave it to be visible, but if it's a short time visit I will leave everything there without any problem... we want to keep an image of order and clean." Lucia Muñoz, a middle class housewife, who is concerned about having an impeccable house. She has so much interaction with her backyard (a very nice garden and a barbecue area, it was a social space), that she wants people to see it as tidy and organized as possible, with everything in the right spot. When she has short visits, she will not take the delicate clothes hung up to dry out of sight, because people understand that the practice is performing in the space and time that is appropriate. However, if there is to be a larger

social gathering, she will have the space clear for this interaction. She uses the patio for hanging some clothes, but she has a TD, which she uses to create time and space.

When I asked Lucia if I could take a picture of her patio, she said I could take as many pictures as I wanted to. Before I could do this, though, she literally ran towards the patio and took the drying clothing out of the camera's frame. This way, I would be able to take the picture of her organized patio. She does not want people to see clothes hanging in her backyard: it will look “ugly and not presentable.” However, in the space where the TD is kept, basically behind a big wall next to the patio beside the kitchen, she was not at all concerned about what was shown in the picture. She let me take the photos without any concern for aesthetics. It is the place dedicated for such tasks, and not for a social interaction.

This same pattern emerged in most of the interview sample that had a TD. The higher the socioeconomic strata, the more the laundry and drying space were hidden from guests and outsiders. One interviewee in a middle class neighborhood, a single mom, broke her TD a year ago. She came up with a new idea for drying the clothes on the balcony without showing the clothes to the street. She used some broom sticks that could hold the clothes and was high enough so that it did not touch the ground, but low enough that it did not display the clothes to the outside. She did not let me take a picture of the way she did this practice, because it was to “ugly and not presentable”. The more hidden the laundry and drying space was, the better was the interviewees' perception of themselves as being good hosts and good citizens, with respectful manners, educated and higher strata standards. These interviewees were always hiding their drying clothes from me, the visitor.

Why the backyard and not the front yard?

People accept practices when they are conducted in spaces that were designed for such a task. For example, they do not consider the practice of hanging clothes up to dry to be something ugly if this is done in the backyard or in the laundry space. However, everywhere else will be counter to the social convention of the typical household's use of spaces and its structure. The household is a representation of a situation in life and a symbol of who we are. The backyard is a space that needs an invitation from the owner to be able to see it. The front yard, conversely, is what we show to the world. The front

yard is what everyone is able to see, and is what everyone is able to admire or to criticize. Interpreting things that the interviewees said suggests that it has a relation with the social meaning of wealth and economic and social power (Bourdieu 1977, 89-91).

There is a social understanding of space. If something is dedicated for doing a certain task, it is acceptable to have this task practicing at any time, at any moment. The backyard, in its natural location behind the house, perform its condition as a hidden space, where only the people closely related to the house and the family come to interact. Drying in the backyard gives you the opportunity to have every other room of the house available at all times for their specific tasks. This space is considered by the interviewees as the best space for drying clothes, because it is where the sun shines, the breeze blows and it will not influence the aesthetics of the house.

Gloria Echeverri, just as Manuela Castrillon, mentioned that "If you have a patio there is no real need for a TD." For them having this appliance with this space is just unacceptable, because there is a big space where you can put the clothes that will not create chaos and disorder inside the house. The clothes can be hung up on the patio, as is accepted practice for this task. Everywhere else will be a contravention of the social code of the house, something conducted improperly.

A general thought from the interviewees is that the front yard should be clean for displaying to those others who surround it. It is a symbol of respect towards the family in the household and towards other members of society and neighbors, as it symbolizes that the family is in a very good socioeconomic position. It is the space that allows outsiders to see into the household, while the rest of the inside space remains a mystery.

There is also the traditional issue that comes into consideration about what the front yard should be used for. The practice of spending the afternoon on the terrace with a rocking chair, chatting with the people from the street passing by was very common. So, if we have the clothes on the terrace, it creates a barrier in communication between the people in the terrace and the ones in the street.

Sitting in the terrace is a practice that has been lost in transition towards a world of technology, insecurity, warmer temperatures and humidity. Communications are conducted through a phone. Air conditioners are making houses more comfortable

inside than outside (Wilhite 2008, 112). The insecurity issues have made a city in between bars: every house and building, in every neighborhood, has security fences that separate the outside from the inside.

One of the notable aspects of the front yard and the front door was that in the lower socioeconomic sectors the fences and gates were closed, but the front door was always open. Basically, this was for two reasons: they have no air conditioners and the open door helps them with the circulation of the breeze; and still, they will hang their clothes in the front yard in search for the sun.

Open doors and clothes on the terrace, creates a social interaction between neighbors. It fosters in the community sympathy, trust and respect towards one another. Everyone knew each other in these neighborhoods. In every interview held in lower strata, always a neighbor came inside the house to chat, and actually made comments on what we were discussing. In the higher the strata, on the other hand, doors and windows of the house are kept closed in order to create more comfortable and secure spaces. These families cool the room with an air conditioner, and closing the door creates a feeling of security. The more private the practices become, the better, especially the drying practice.

Gilda Salazar, living in a middle class zone, explains that in the neighborhood no one hangs their clothes in the terrace, but in the patio. "No, not on the terrace, that looks ugly there, and neighbors will also be upset with that hanging out there and thus, I have a big courtyard, why will I put something out there.". From her comment I interpret that it is not an established rule written on a piece of paper, but a social rule. Neighbors will reject their attitude and their conduct, because it is aesthetically unappealing, and it breaks a social rule. Gilda is an older citizen, living with one of her grandsons. She uses the patio as the laundry space. But it is also her "favorite space" for interactions in the household, "I like a lot being in the patio because I love my plants." The interaction with plants is a personal hobby that keeps her mind occupied during the day. When hanging clothes in the yard, she hangs them from the medlar (níspero) tree, around the stalls, and the clothes are placed there without "any problem." Although she considers the ropes unsightly, she still puts them in the place that she considers her favorite space. The backyard is where she has her most intimate interaction in the house. It is also the place where she interacts socially, when she has big family visits. This is where she spends most of the time in the house. And, even though she believes clothes

look ugly no matter where they are hung up to dry, she prefers doing it in the backyard, because of what neighbors may think otherwise.

Gilda's case seems to be contradictory, in terms of why drying should be conducted in the backyard as opposed to the front yard, when the backyard is where she spends most of her time and hosts social gatherings. However, every room in the household has a specific use and rules. Every room was designed for a specific practice.

Making space

The interaction that the space was originally designed for has to be kept intact to ensure its reliability as a comfortable space. The use of spaces is related to how much convenience time it is possible to make. As we explained in the last section, the drying moment has no direct contact or interaction between the actual drying process of the clothing and the individual. Therefore, the period of time while the clothes are actually drying is a convenient time, and it is the carrier's decision what to do with it.

In small flats, or when there is unfavorable weather, hanging up clothes to dry uses comfortable spaces for the task of drying. The TD eliminates the necessity to hang clothes, however, making the social spaces available at all times.

The TD is not only able to gain time, but it provides access to spaces in the carriers' households. The faster the clothes are dried, the faster the spaces will be available to use for something else. "In space it will influence a lot, in the sense that the space could be used for something else, because if you go to the patio, you will always find all that amount of clothes, but with the TD, it will be only to dry and fold it into the closet," Rafael Perez, who lives in a low socioeconomic stratum, who has no TD, expressed. He fantasizes about having this appliance because of the relationship it has to time and space. We want to do things faster in order to have the spaces available for social interaction. If we use the backyard, which is the socially accepted space for drying, we will not be able to use it for something else during this drying process. This disadvantage causes hanging practitioners to feel prisoners of a practice, because the space cannot be used during the time clothes are being dried.

The front yard is used for drying, because it will make the clothes to dry faster. Therefore, they will have the space available again more quickly, and during this time

all the areas inside of the house are also still available. When conducting fieldwork, two of my interviewees were drying their clothes on the terrace at the moment I was there. This allowed the interview to be held in the living room. Had they been drying in the living room, the use of this space for the interview would have been uncomfortable. They did not dry in the backyard because there was no sun, and would have taken longer.

One of the advantages of the TD is that clothing will never occupy any space other than where the machine is. It gives the carrier a sense of organization and projects a social image. In Rafael's case, he aspired to being able to go to the patio and not find clothes hanging, so he can use it for social gathering.

This reasoning of using space or having spaces available at all times crosses socioeconomic borders. Sonia Rueda, from a higher socioeconomic stratum, says that she uses the TD for having spaces available at all times. When she has too many things to dry, the TD helps her to not have everything outside or inside the house. She wants to finish the tasks faster, not only to earn time, but, in order to have more spaces available in the fastest way possible. She wants the household to be clear of clothing interrupting the view inside and outside of the house so that she and her visitors can be comfortable.

"For me what I dislike is to see things dangling around the house, because I had an experience that I lived in a tiny apartment and It had no space for drying. I had no dryer, washing machine but no dryer, when we washed bed sheet and everything, that was, oh No, I don't want to imagine that. I hung with hooks everywhere, the drying took a while, and when it rains, less the clothes got dried, and all the that hanging there." Sonia Rueda, commented.

Sonia used to live in a small flat when they had troubles with finances. As they did not have a TD, she used to hang the clothes everywhere in the house. This for her was the frustrating part of the laundry practice. More frustrating than the time spent hanging was the time that things had to be left hanging, disturbing her space. She was not using the spaces of the flat for what they were supposed to be used for. Once a week he had to hang clothes, towels and bed linens all over the flat. She would not do it in the balcony or in the windows because of the social rules forbidding this, and meanings of doing so anyway. So, she had to find a way to dry using her living room, kitchen, and bedrooms.

For her, this accumulation of clothes in her space was the real reason why she wanted a TD.

She did not like to feel this sensation of living in a disorganized house. She did not like not having the spaces available for what they are supposed to be for. The hanging practice gave her a feeling of belonging to a lower socioeconomic stratum, and a sense of a loss of her status. Therefore, she relates today, now economically things have become better, the use of a TD is a relief from that burden of small, disorganized spaces. The interaction of space is important for the projection of social recognition, as was discussed in Chapter 4. The TD helps the carrier not only to project a social image by making clothes invisible but, this invisibility creates the availability of spaces in the household, allowing them to perform their specifically intended purposes.

The improvisation of space is common in flats because of the restriction of space in the household. But when it comes to houses with patios, the backyard is the proper space to dry the clothes when hanging. Still, a carrier such as Maria Quintero, who lives in a flat that has an internal backyard, has a TD for drying:

"Terrible, if it was raining, then I had to dry inside the house, there's no visitors, then I could put in a chair a stick through another chair and hanged there, and then I look in the curtains, three more can be there, ooh there two sticks, there's other two more there, and when you came in the household, this looked like El Chavo del Ocho neighborhood, with clothes just hanging everywhere. And the bed linens that I like them big and fat, I had to put them in between two sofas, and then the sofa got wet, so I had to use four chairs with strings to dry it up"

Maria lives in a flat on the first floor that has a backyard. She recently bought a TD that solved her problems mentioned above. In the beginning of the interview, she stated that the TD was consumed in order to fulfill her desire to earn free time. Her work is exhausting and she does not want to think about laundry as a problem. Through the interview she came up with the reasoning on space. She accumulates so many clothes that when they were collected and hanged in the house, she had to come up with different tricks to be able to dry all the clothing, especially when it rained. She has no inside clothes hanger, so she used different elements in the house for hanging. This spaces that she used are not meant to be for drying, this made her feel disorganized, and uncomfortable. The practice of hanging the clothes made her compare her house with a

highly successful Mexican TV show from the '70s that has been aired in all Latina America and it is still in Colombia during the afternoons, “El Chavo del Ocho”. The characters of this show lived in a lower socioeconomic neighborhood. One of the symbols they used was the hanging of the clothes throughout the residential common areas. Many of the interactions between neighbors in the show occur when they are drying clothes. This comparison in the use of space and the drying practice with the symbol from a TV show connects the ideas of the correct use of spaces in the households and common areas.

The amount of space used for hanging clothes, the effort that is required for drying, especially when it is raining; the ability to control time and space, and the symbol of the practice as a lower socioeconomic practice, made Maria a TD consumer. Today she has TD and she uses it even if the sun is out and shining on her backyard. She wants to do laundry with less effort, and not to use her other rooms as drying rooms. This makes her feel organized and comfortable.

So, how is the amount of space and the design of flats influencing the TD consumption?

5.2.2 The script of small flats and the TD consumption

The amount of new buildings being built in the city of Barranquilla is evident. Construction became, as in many other cities, one of the big motors for economic development. It provides jobs for a large number of people in the city, and it grows the economy for the many companies that work in the construction sector. These new flats have areas from 60 to 140 square meters. This means that the spaces are smaller compared with older flats and houses, where you can find flats with areas as big as 400 square meters, and houses with even bigger areas counting the patios, in all the strata.

From the sample taken, only one family from a lower socioeconomic strata zone interviewed lived in flat. From the middle class interviews, six out of eight families lived in a flat, while from the higher socioeconomic strata four out of seven families lived in flat. Houses are common in higher and lower socioeconomic strata, rather than in middle class neighborhood. With the construction boom in the city, there has been a transition in higher strata zones from houses to vertical properties. This change has been modifying TD consumption, and is causing higher economic strata to change their

drying practice. Three of the interviewees in higher strata had this transition from house to apartments, and changed their practice from hanging clothes to consuming TD.

"I think TD are becoming more common, spaces are getting smaller and is creating a need for tumble drying, and if you go through all that amount of buildings that have been built, you do not see clothes being dried to the breeze. I know it, because I know they are very small apartments, and where will you dry. It is a need speaking on space to have a TD", Manuela Cepeda commented.

Manuela, from a higher socioeconomic stratum, highlights that these new buildings built in these zones are designed to have a TD. The small spaces that are being built encourage a change in drying practice, because carriers want to continue project a social image. Hanging clothes takes space from the small flats, especially when the amount of laundry done is a considerable amount, and using spaces that are not designed for laundry is not socially acceptable.

Flats are less expensive than houses, whether to buy or rent. So, when people go to a new flat, do they consider the design of the laundry space as a motivator for moving in?

One of the interviewees, Gloria Echeverri, is a single mom that works as a real estate agent. When discussing about her practice, she could not separate her job from the conversations we were having. She explained how households are being sold and how the design interacts with the customers. When she shows potential buyer or tenants a flat, she is really interested in showing the common area spaces. She explained that these areas are getting smaller through time, while bedrooms are getting bigger. She suggested that the social visits have been changing and it is more common for the youngsters of the houses to receive their visitors in their bedrooms and not in the living room.

Still, the clients are looking for comfortable spaces. The kitchens are still wide, but the laundry room beside the kitchen is the area of the household that has been losing the most amount of area through time. When she shows clients a house, the laundry room is not something people ask for, but a place they just expect their appliances will fit, or that they will find a way to hang their clothes in that space. However, Gloria explained that none of the new projects she has been showing has an area with a space big enough for hanging clothes. All just have a small room behind the kitchen where a WM and TD

can fit snugly. This information is backed up by Julia Sanchez, who is a lawyer specialized in commercial rights, “The new buildings are designed strictly in the dryer and not a space for hanging clothes.” Some of the spaces are even designed for only having laundry towers, where WM and TD are fit together, as a vertical appliance.

As flats are smaller; the laundry space is not enough for these families' drying practices. Some interviewees modified the laundry space in order to be able to fulfill their personal drying need. Let us take as an example Patricia Olaya, when she moved from her house with a patio to an apartment, she knew that:

"(...) there was no space for the drying clothes, so we came up with an idea of the TD. But, the WM we had was new, and then we thought, if we sell it, we will not receive what it cost, therefore we should buy a separate TD. But, we would need the space for the TD, there was a space with a permanent washing board, and then we removed it and got the TD."

Coming from a house with a backyard to a flat made her space smaller, and she no longer had a big space for drying. In her flat the design of the laundry room included a permanent washing board. The space was small, and it had no ventilation system or sun. They broke the washing board, because it became a spatial barrier to the technology that would solve their space availability issues. The design of the flat influenced their motivation to acquire the appliances, and the space available encouraged the acquisition of a TD. The space was not big enough for hanging clothes, and it was not designed for a TD either, as they had to eliminate the washing board. So, are architects considering laundry spaces for hanging the clothes?

The design of these small laundry spaces is unconsciously creating a motivation for the consumption of a TD. During fieldwork, I had the opportunity to interview an architecture teacher from the “*Autonoma University*” in Barranquilla, Wilhelm Hasselbrinck. For architects, TDs are an appliance that they know to exist, and they start from the assumption that people will have them. Appliances influence the way architects design rooms. They design smaller laundry rooms, and use the amount of saved space to use in other rooms. Architect Hasselbrinck is specialized in design and construction of spaces. He has been working on an unpublished research on the evolution of the spaces in the households, he commented the following:

“We as architects, we take the laundry areas as the last space to design. It is more like, where there is a little hole, just a small space where we can fit the WM and the TD. There, between the column and the wall. Today, there is not a real space designed or a premeditatedly chosen for laundry activities. It is an area designed spontaneously. But in theory there should be one.... It happens because households are a business product, and architects are more worried about the value per square meter and his earnings. Then the architect handle lower quality standards, at sites that are not selling points, no one will buy for laundry spaces. People in Barranquilla are more concerned for the Mini Split air conditioner spots and electric points for example.”

Interesting to note from his point is that the commercial value that architects give to the house through design, and how it influence the way spaces are designed. Bigger laundry rooms are not selling points and spaces, people do not buy houses because of the laundry space. Architects will assume that the families moving in will have a WM and a TD. So, they instinctively create spaces only for these machines, and no longer for hanging clothes. This is driving the need for a TD and a change in drying practice.

According to the Architect, Hasselbrinck; the laundry room

“(...)should first have a permanent washing board, the fact that there is the WM does not mean that the wash board should be removed,... logically, the laundry room should be located towards the afternoon sun, for when things are washed, they can aerate while the sun hits them through the afternoon and dries them, but this is just theory.”

In theory, these spaces have to be built in order to fulfill the need of washing and drying in the households manually, and without energy use. Because of the existence of these appliances and an increase in the commercial value, architects disregard the theory. They include the laundry rooms in the end of the project, as the last space to be designed.

5.2.3 Discussion on space and convenience

Practice corresponds to a space. Practices should be conducted where they are meant to be. Drying in a visible spot is not considered to be in accordance with the social rules and script of the practice. That is why there are laundry spaces and backyards.

Where the practices are performed is essential in understanding the way the practice is interpreted socially. When the space in flats is small, and the only place where there is sun and breeze are the window and the balconies the TD becomes essential for these practices to perform within the social rules of drying clothes, and to organize spaces appropriately for each task.

In this sample, the higher the social and economic level of the carrier of the drying practice the more organized spaces and more social rules were followed with regards to how to use household spaces correctly.

The study of this practice suggests that the higher socioeconomic capabilities, the higher the deployment of order and rules. Therefore, being able to organize the house is linked to these orders and rule. Having the bedroom only for sleep, the kitchen for cooking, the living room to spend time with visitors, the dining room to eat, the laundry room to wash the clothing, has specific rules orders and status meanings. The TD as space appliance organizes these rooms, and allows them be what they are supposed to be, especially in households without patios, such as flats.

The symbol of having laundry in the terrace and in visible spaces speaks to the tension between private and the public space. The way I conduct the practice of hanging clothes on the terrace, is dependent on the social stratum. The front yard provides the first impression of the house. The backyard is the most dynamic space in many of the households. Therefore the rule of hanging clothes in the front yard, even if it is where the sun and breeze will help to accomplish the task in an efficient way, will be considered as a break of the rule. This has a social connection with meanings concerning lack of culture, lack of education and poverty.

When hanging clothes in the house, or in these small flats, it takes spaces out of their original design script, which determines what they are supposed to be used for, and the practice is rejected by others. The TD, as a convenient appliance, is able to make space. It is able to keep spaces free to use. It gives invisibility to the drying of the clothes. With this invisibility, the social status grows and the spaces are available to be used for other things. The act of showing nothing reflects well-being.

5.3 Conclusion on Time and Space

The organization of social life is held together by practicing within a time and a space (Schatzki 2009, 38). Time and space are linked to each of the elements of practice. The TD is a convenient appliance that has the ability to make time and space, by performing within the social rules governing time and space.

The analysis of the thesis sets the appropriate performance of the drying practice to be held during a certain time and a specific space. If drying is not performed in a place that is designed for this practice, this will create a negative impression among others.

Conventionally, drying has to be performed during daylight hours, when the sun can be used as the energy source. Technology removes this requirement altogether, but the social convention for drying at certain times in certain sequences takes a while longer to disappear. Carriers will still carry the practice during daytime, unless there is a special situation, because of the routinized behavior established by the practice through experience. Household tasks are still preferably performed during daytime.

Not only do time and space hold together the practice, but a practice is able to create time and space. When the material agent, the TD, performs in the practice, it is able to make space and time where other practices would perform appropriately to these spaces and timings. It is able to make available spaces at all times. It allows the carrier to improvise and to plan ahead: if the carrier forgets to dry, they can do it at any time, without impeding on the social rules of the spaces of the household.

This ability allows the practice to perform within the social rules of the design of the household, and the social rule of drying clothes to not display them to others. This ability to control the time and the space of the practice sends a message to others of status, education, control and a quality life.

Time and space are important factors in everyday life, as Yismari Santos, who lives in a low strata neighborhood, explained: "if you have more time you can produce more quality of life." The relationship between having more time and space as a definition for quality of life drives the consumption of energy-using appliances, which are able to create time and space, as well as confine practices to the spaces which are designed for their performance.

Every interviewee wants to do the drying task fast, so they can use the clothes and the space faster. This is why they perform the practice outside in some cases, even though they find it aesthetically unappealing. When lower strata hang their clothes in the terraces and/or windows, what they want is the same as what TD practitioners want: to have their clothes ready in the fastest way as possible, and to have the rooms ready to perform according to their script as fast as possible. If they hang clothes in the backyard and the sun is not shining enough to dry the clothes fast then they cannot use their backyard until the clothes are dried. If they hang them on the front yard where the sun is shining, however, they will be dried fast and spaces will be available for use sooner.

This chapter has shown how time and space and its proper use will encourage and hold together the dynamic of elements constituting drying practice. The way time and space is perceived of by carriers is relative to their conditions and their way of practicing. Practices compete against other practices for time and space, but are also able to make time and space available for other practices to perform.

6 Conclusion

This thesis has been focused on how to contribute to the mitigation of global warming. The mitigation of global warming is the main challenge facing society and the wellbeing of the future generations (Blair 2006; Obama 2015 cited from CNN). To do so, pursuing a sustainable development model is necessary. The dilemma arises from how deeply integrated fossil fuel energy is with development and wellbeing. The change to renewable energy is slow, so changing our consumption patterns can help in the mitigation of CO₂ emissions.

Even though human beings have lived for thousands of years without electricity, today energy is essential in the modern and rhythms of everyday life. Energy consumption in households is the main contributor to greenhouse gas emissions. Therefore, sustainable practices should be encouraged by policy makers to help in the mitigation of global warming and avoiding reaching the 2 ° C scenario.

The interviewees in this thesis' sample understand that there is a connection between the way we practice daily and climate change. Campaigns regarding environmental problems have explained many individuals about the connections with our way of doings to environmental degradation and climate change. However, there has not been a shared social convention to practice differently: people still follow unsustainable routinized behavior. Therefore this thesis decided to focus on different assessment criteria to study social change. SPT leads to a better understanding of doings and sayings that has more detailed approaches to these routinized behaviors than an approach based on individual choice.

SPT is a useful theory, which can help policy makers understand energy consumption from a practice perspective, instead of an individual choice perspective. SPT considers the individual to be a carrier of the practice. Therefore, the subject of study is the performance of the practice itself through its elements of agency: the embodied knowledge of the competences and skills required to perform a practice; the embedded knowledge of the material world, and the social symbolic meaning of following the social rules of the practice; this rather than changing the individual behavior by awareness campaigns.

Practices are not static, and they are able to change through time through shifting dynamics in its elements. For the practice to be able to change there must be a movement in more than one element of the practice and a continuous performance through time (Wilhite and Sahakian 2014, 28). This thesis examined drying practice, and explained each one of its elements. This led to the understanding of why people in a warm sunny place such as Barranquilla are buying TDs.

The drying practice has two main ways of performing. One is by traditional methods, i.e. hanging the clothes up to dry; the other is by the engagement of the TD. The embedded knowledge of the TD and its connection to the social and symbolic meaning of the practice is causing drying practice to change from a sustainable practice to an unsustainable practice.

Hanging the clothes is a practice, performed by every stratum. However, if the practice is performed outside of its socially accepted space, then this will break the social rules of the drying practice. This will symbolize the carriers as uneducated, uncultured, and disrespectful. Hanging clothes is a sustainable practice that lower socioeconomic strata perform more regularly. The price of the TD is a barrier for this stratum to buy one, so they continue hanging their clothes to dry.

The habit of hanging clothes in visible spaces is considered to economically and socially devalue the property and the neighborhood. The relationship is so strong with this symbolic meaning of wealth that buildings in higher economic strata prohibit the practice in visible spaces, so the property does not suffer an economic devaluation.

The TD produced a positively received change in drying practice, because it not only had a direct change in the material element of the practice, but its embedded knowledge was also closely linked to the social rules of the drying practice. The TD is able to keep the house organized. It allows the carrier to skip the practice of hanging the clothes. It is able to keep the spaces of the house clean, so they can perform for what they were designed for, instead of having clothes hanging in different rooms, or in the front yard.

The symbolic meaning of being able to practice with a TD is associated with being well-educated, respectful, and with a high economic status. These links allow the TD to connect very easily with the practice, and this is leading to change.

The symbolic meaning of conforming to social norms is driving more carriers to replace sustainable practices with unsustainable ones. Performing in a sustainable manner has a less positive symbolic meaning than increasing social status by performing in an unsustainable manner. This could be a very interesting subject of further study.

The TD, although a machine that is not displayed or socially interactive, is nevertheless seen as a dream icon. It is a good that is strongly associated to the conceptions of a good life and a high quality of life. Quality of life is understood in terms of convenience appliances: by doing more things in less time without disturbing the spaces is what is aspired to in this regard.

The TD keeps rooms not designed for laundry clear from clothes drying, meaning it is able to keep these spaces free. During the drying process; there is always a waiting time, but the TD has the ability also to make time, by skipping stage in which clothes are hung up. This gives the convenience time to the carriers to perform other practices, causing a rebound effect, and consumption of energy to increase. Still it is important to note that TD performers are still performing the drying practice during daytime, because it is deeply integrated to the habitus of the routinized behavior.

It is clear that the TD is an influential material agent in drying practice. It alters the sequence of the practice, the structure and length of the time taken, the space required, and it has many symbolic and social meanings attached to its consumption.

Nonetheless, drying practice could keep performing through hanging clothes up to dry were the designs of households to keep the laundry spaces where the sun shines and the breeze blows. This research tells me also that the weakest element of the hanging of the clothes practice is the social symbolic meaning of performing in the wrong spaces. Therefore, as there are already buildings without this designed socially-acceptable laundry space, social norms that encourage more sustainable drying practice, and end their stigmatization, should be encouraged at a policy level. The waste of energy resources should be discouraged and drying by the sun should be encouraged as a normal and as sustainable practice, wherever it is done.

This thesis is an example of how the theory of social practices could be used to study other cases of unsustainable practices not only in energy but in other areas. As the use of plastic water bottles against the use of potable tap water. The mobilization practice in

the city: Traffic, public transportation service and the car. Why people litter the streams and the streets?; and Food waste practices and the consumption of red meat.

References

- Adams, William M. 2009. *Green Development: Environment and Sustainability in a Developing World*. New York: Routledge.
- Barranquilla Como Vamos. 2016. "Cómo Vamos En Servicios Públicos Indicadores 2009-2013." Accessed March 17.
<http://www.barranquillacomovamos.co/bcv/index.php/component/k2/item/334-c%C3%B3mo-vamos-en-servicios-p%C3%BAblicos-indicadores-2009-2013>.
- Baudrillard, Jean. 1998. *The Consumer Society, Myths and Structure*. London: Sage Publications.
- Bauman, Zygmunt interview with Chris Rojek. 2004. "The Consumerist Syndrome in Contemporary Society." *Journal of Consumer Culture* 4(3): 291 – 312.
- Blair, Tony. 2006. *Climate Change: The UK Programme*. London: HMSO
- Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Translated by Richard Nice. Cambridge: Cambridge University Press.
- Bourdieu, Pierre. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Translated by Richard Nice. London and New York: Routledge Classics.
- Boyce, Carloyn, and Neale Palena. 2006. *Conducting In-Depth Interviews: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input*. Watertown: Pathfinder International.
- Brencic, Vera, and Denise Young. 2009. "Time-saving innovations, time allocation, and energy use: Evidence from Canadian households." *Ecological Economics* 68: 2859-2867. Accessed 29 February, 2016. doi: 10.1016/j.ecolecon.2009.06.005.
- Britannica Academic. 2016. "Evaporation." Accessed March 18
<http://academic.eb.com/EBchecked/topic/1516731/evaporation>.
- Brockinton, Dan and Sian Sullivan. 2003. "Qualitative Research." In *Development Fieldwork: A Practical Guide*, edited by Regina Scheyvens and Donovan Storey, 57-72. London: Sage.
- Bryman, Alan. 2008. *Social Research Methods*. 3rd edition, Oxford: Oxford.
- Calderón, Silvia, et al. 2015. "Achieving CO2 reductions in Colombia: Effects of carbon taxes and abatement targets." *Energy Economics* xxx: xxx-xxx. Accessed March 18, 2016. doi: <http://dx.doi.org/10.1016/j.eneco.2015.05.010>.
- Campbell, Colin. 1995. "The Sociology of Consumption" In *Acknowledging Consumption: A review of new studies*, edited by Daniel Miller, 96-126. New York: Routledge.

- Costa, Luis, Diego Rybski., and Jurgen P. Kropp. 2011. "A Human Development Framework for CO2 Reductions." *Plos One* 6(12): 1-9.
- Creswell, John W. 1998. *Qualitative Inquiry and Research Design. Choosing among Five Traditions*. Thousand Oaks, California: Sage Publications Ltd.
- Creswell, John W. 2003. *Research Design: Qualitative, Quantitative and Mixed methods Approaches*. 2nd ed. Thousand Oaks, California: Sage Publications Ltd.
- Departamento Administrativo Nacional de Estadística, DANE. 2015. "Reporte de Pobreza e Inequidad: Pobreza Multidimensional – Nacional (2014- 2015)." Accessed May 12. http://www.dane.gov.co/files/investigaciones/condiciones_vida/pobreza/cp_pobreza_15.pdf.
- Departamento Administrativo Nacional de Estadística, DANE. 2016. "Estratificación Socio-Económica: Para Servicios Públicos Domiciliarios." Accessed May 2. <http://www.dane.gov.co/index.php/estratificacion-socioeconomica/generalidades>.
- Department of Energy Facilities. 2016. "Ductless Minisplit Air Conditioner." Accessed May 27. <http://energy.gov/energysaver/ductless-mini-split-air-conditioners>.
- Douglas, Mary, and Isherwood, Baron. 1979. *The World Of Goods: Towards An Anthopology Of Consumption*. London: Allen Lane.
- Duarte-Abadía Bibiana, Rutgerd Boelens, and Tatiana Roa-Avendaño. 2015. "Hydropower, Encroachment and the Re-patterning of Hydrosocial Territory: The Case of Hidrosogamoso in Colombia." *Human Organization* 74-3: 243-254.
- Dunn, Robert. 2008. *Identifying Consumption: Subjects and Objects in Consumer Society*. Philadelphia: Temple University Press.
- EAFIT University. 2013. "Bolsa de Empleo EAFIT." Accessed May 12. <http://trabajando.eafit.edu.co/detallecontenido/c/candidato/idnoticia/9337/el-55-de-los-colombianos-gana-un-salario-minimo-legal.html>.
- Electrificadora del Caribe. 2016. "La Empresa." Accessed March 16. <http://www.electrificaribe.com/co/conocenos/quienes+somos/1297110270053/la+empresa.html>.
- German Advisor Council on Global Change, WBGU. 2011. *World in Transition – A Social Contract for Sustainability*. Berlin: WBGU.
- German Advisor Council on Global Change, WBGU. 2014. *Climate Protection as a World Citizen Movement*. Berlin: WBGU.
- Giddens, Anthony. 1984. *The Constitution of Society*. Cambridge: Polity.
- Guillen-Royo, Monica. 2012. "The Challenge of Transforming Consumption Patterns: A Proposal Using the Human Scale Development Approach." In *Development and*

- Environment: Practices, Theories, Policies*, edited by Bjørkedahl K. And Nielsen K, 99–118. Oslo: Unipub.
- Hargreaves, Tom. 2011. “Practice-ing Behavior Change: Applying Social Practice Theory to Pro-environmental Behavior Change.” *Journal of Consumer Culture* 11(1):79-99.
- Hornborg, Alf. 2013. “The Fossil Interlude: Euro-American Power and the Return of the Physiocrats.” In *Cultures of Energy*, edited by Sarah Strauss, Stephanie Rupp, Thomas Love, 41-59. Walnut Creek: Left Coast Press.
- Intergovernmental Panel on Climate Change, IPCC. 2014. *Climate Change 2014: Mitigation of Climate Change*, edited by Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change: Edenhofer, Ottmar et al. Cambridge: Cambridge University Press.
- Layard, Richard. 2005. *Happiness, Lessons from a New Science*. New York: Penguin Press.
- McNeill, Desmond. 2000. “The Concept of Sustainable Development.” In *Global Sustainable Development in the 21st Century*, edited by Kenok Lee, Alan Holland, and Desmond McNeill, 10-29. Edinburg: Edinburg University Press.
- Ministerio de Minas. A. 2016. “Apagar Paga.” Accessed April 1. <https://www.minminas.gov.co/>.
- Ministerio de Minas. B. 2016. “Tips Para el Hogar.” Accessed April 1. <https://www.minminas.gov.co/tips-para-el-hogar>.
- Morales, Sergio, Camilo Álvarez., Cesar Acevedo, Carlos Díaz, Miguel Rodríguez, and Leonardo Pacheco. 2015. “An overview of small hydropower plants in Colombia: Status, potential, barriers and perspectives.” *Renewable and Sustainable Energy Reviews* 50: 1650–1657.
- Moses, Jonathon W., and Torbjørn L. Knutsen. 2007. *Ways of Knowing: Competing Methodologies in Social and Political Research*. Basingstoke: Palgrave Macmillan.
- National Aeronautics and Space Administration, NASA. 2016. “Graphic: Global warming from 1880 to 2015.” Accessed May 2. http://climate.nasa.gov/climate_resources/139/.
- Obama, Barack. 2015. “State of the Union Speech.” Washington, DC, January 20. CNN. Accessed 16 may. <http://edition.cnn.com/2015/01/21/us/climate-change-us-obama/>.
- Organization for Economic Co-operation and Development, OECD. 2012. “OECD Data, Inequality, Poverty rate.” Accessed 12 may. <https://data.oecd.org/inequality/poverty-rate.htm#indicator-chart>.
- Ortner, Sherry B. 1999. “Thick Resistance: Death and the Cultural Construction of Agency in Himalaya Mountaineering.” In *The Fate of Culture: Geertz and Beyond*, edited by Sherry B. Ortner. Durham and London: Duke University Press.

- Overton, John, and Peter van Diermen. 2003. "Using Quantitative Techniques." In *Development Fieldwork: A Practical Guide*, edited by Regina Scheyvens and Donovan Storey, 37-57. London: Sage.
- Pink, Sarh, Kerstin Leder Mackley, Rozana Morosanu. 2013. "Hanging Out at Home: Laundry as a Thread and Texture of Everyday Life." *International Journal of Cultural Studies* 0:1-16. doi: 10.1177/1367877913508461.
- Porter, Adrian. 2016. "Gas and Heat Pump Tumble Dryers." Accessed March 17. <http://www.which.co.uk/reviews/tumble-dryers/article/gas-and-heat-pump-tumble-dryers>.
- Princen Thomas, Michael Maniates, and Ken Conca. 2002. "Confronting Consumption." In *Confronting Consumption*, edited by Thomas Princen, Michael Maniates, and Ken Conca, 1-20. Cambridge: MIT Press.
- Princen, Thomas. 1999. "Consumption and Environment: Some Conceptual Issues." *Ecological Economics* 31:347-636.
- Rauschmayer, Felix, and Ines Omann. 2015. "Well-being in Sustainability Transitions - Making use of Needs." In *Sustainable Consumption and the Good Life - Interdisciplinary perspectives*, edited by Karen Lykke Syse and Martin Lee Mueller, 111-125. New York: Routledge.
- Reckwitz, Andreas. 2002. "Toward a Theory of Social Practices: A Development in Culturalist Theorizing." *European Journal of Social Theory* 5: 243-263.
- Røpke, Inge, and Toke H. Christensen. 2013. "Transitions in the Wrong Direction? Digital technologies and daily life." In *Sustainable Practices: Social Theory and Climate Change*, edited by Elizabeth Shove and Nicola Spurling, 49-68. New York: Routledge.
- Røpke, Inge. 2009. "Theories of practice — New inspiration for ecological economic studies on consumption." *Ecological Economics* 68: 2490-2497.
- Rupp, Stephanie. 2013. "Considering Energy: $E = mc^2 = (\text{magic} \cdot \text{culture})^2$." In *Cultures of Energy*, edited by Sarah Strauss, Stephanie Rupp, Thomas Love, 79-95. Walnut Creek: Left Coast Press.
- Salvesen, Ingrid. 2014. "Practicing the Preaching? A study of the Transition Movement in Norway and its effort to change energy-related practices." Master Thesis, University of Oslo.
- Schatzki, Theodore. 1996. *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. Cambridge: Cambridge University Press.
- Schatzki, Theodore. 2002. *The site of Social: A philosophical account of the constitution of social life and change*. Pennsylvania: Penn State Press.

- Schatzki, Theodore. 2009. "Timespace and the Organization of Social Life." In *Time, Consumption and Everyday Life: Practice, Materiality and Culture*, edited by Elizabeth Shove, Frank Trentmann and Richard Wilk, 35-48. New York: Berg.
- Schatzki, Theodore. 2013. "The Edge of Change: on the emergence, persistence and dissolution of practices." In *Sustainable Practices: Social Theory and Climate Change*, edited by Elizabeth Shove and Nicola Spurling, 31-46. New York: Routledge.
- Shove, Elizabeth, and Gordon Walker. 2014. "What Is Energy For? Social Practice and Energy Demand." *Theory, Culture and Society* 31: 41-58.
- Shove, Elizabeth, and Nicola Spurling. 2013. "Sustainable Practices: Social Theory and Climate Change." In *Sustainable Practices: Social Theory and Climate Change*, edited by Elizabeth Shove and Nicola Spurling, 1-13. New York: Routledge.
- Shove, Elizabeth, et al. 2009. "Introduction: Time, Consumption and Everyday Life." In *Time, Consumption and Everyday Life: Practice, Materiality and Culture*, edited by Elizabeth Shove, Frank Trentmann and Richard Wilk, 1-13. New York: Berg.
- Shove, Elizabeth, Mika Pantzar, and Matt Watson. 2012 a. *The Dynamics of Social Practice, Everyday Life and How It Changes*. London: Sage.
- Shove, Elizabeth. 2003. *Comfort, Cleanliness and Convenience: The Social Organization of Normality*. New York: Berg.
- Shove, Elizabeth. 2010. "Beyond the ABC: climate change policy and theories of social change." *Environment and Planning* 42: 1273-1285.
- Shove, Elizabeth. 2012 b. "Habits and Their Creatures." In *The Habits of Consumption*, edited by Alan Warde & Dale Southerton, 100-112. Helsinki: Helsinki Collegium for Advanced Studies.
- Syse, Karen. 2013. "Otters as Symbols in the British Environmental Discourse." *Landscape Research* 38(4): 540-552.
- Trigg, Andrew B. 2001. "Veblen, Bourdieu, and Conspicuous Consumption." *Journal of Economic Issues*, 35(1): 99-115.
- Unidad de Planeación Minero Energética, UPME. 2016. "Seguimiento Variables 2015." Accessed March 17.
http://www.siel.gov.co/portals/0/generacion/2015/Seguimiento_Variables_Junio_2015.pdf.
- United Nations Development Program, UNDP. 2015. *Human Development Report*. New York: United Nations Development Program.
- United Nations. 2016. "Sustainable Development Goals." Accessed May 2.
<https://sustainabledevelopment.un.org/?menu=1300>.

- United Nations. 2016. "Transforming our world: The 2030 Agenda for Sustainable Development." Accessed May 2.
<https://sustainabledevelopment.un.org/post2015/transformingourworld>.
- Uribe-Mallarino, Consuelo. 2008. "Estratificación social en Bogotá: de la política pública a la dinámica de la segregación social." *Universitas Humanística* 65: 139-171.
- Vandevort, Don 2014. "How clothes dryers work." Accessed March 17.
<http://www.hometips.com/how-it-works/clothes-dryers-gas.html>.
- Veblen, Thorstein. 1899. "The Theory of the Leisure Class." In *The Collected Works of Thorstein Veblen. Vol. 1*. Reprint 1994, London: Routledge.
- Verbeek, Peter Paul. 2006. "Materializing Morality. Design Ethics and Technological Mediation." *Science Technology and Human Values* 31(3): 361 – 380.
- Warde, Alan. 2005. "Consumption and Theories of Practice." *Journal of Consumer Culture* 5: 131-153.
- Warde, Alan. 2013. "What Sort of Practice is Eating?" In *Sustainable Practices: Social Theory and Climate Change*, edited by Elizabeth Shove and Nicola Spurling, 18-30. New York: Routledge.
- Wilhite, H., H. Nakagami, T. Masuda, Y. Yamaga, and H. Haneda, 1996: "A Cross-Cultural Analysis of Household Energy-Use Behavior in Japan and Norway." *Energy Policy* 24(9):795-803.
- Wilhite, Harold, and Jørgen Nørgaard. 2004. "Equating Efficiency with Reduction: A Self-Deception in Energy Policy." *Energy and Environment* 15:991-1011.
- Wilhite, Harold, and Marlyne Sahakian. 2014. "Making Practice Theory Practicable: Towards more Sustainable Forms of Consumption." *Journal of Consumer Culture* 14(1): 25-44.
- Wilhite, Harold. 2005. "Why Energy Needs Anthropology." *Anthropology Today* 21:1-2.
- Wilhite, Harold. 2008. *Consumption and the Transformation of Everyday Life: A View from South India*. New York: Palgrave Mcmillan.
- Wilhite, Harold. 2012. "The Energy Dilemma." In *Development and Environment: Practices, Theories, Policies*, edited by Bjørkedahl K. And Nielsen K, 81–98. Oslo: Unipub.
- Wilhite, Harold. 2013. "Energy Consumption as Cultural Practice: Implications for the Theory and the Return of Sustainable Energy Use." In *Cultures of Energy*, edited by Sarah Strauss, Stephanie Rupp, Thomas Love, 60-72. Walnut Creek: Left Coast Press.
- Wilk, Richard. 2002. "Consumption, Human needs, and Global Environmental Change." *Global Environmental Change* 12: 5-13.

- Wills, Wendy, Kathryn Backett-Milburn, Mei-Li Roberts, and Julia Lawton. 2011. "The Framing of Social Class Distinctions through Family Food and Eating Practices." *The Sociological Review* 59(4): 725-740.
- Winther, Tanja. 2012. "Negotiating Energy and Gender: Ethnographic Illustrations from Zanzibar and Sweden." In *Development and Environment: Practices, Theories, Policies*, edited by Bjørkedahl K. And Nielsen K, 191-207. Oslo: Unipub.
- Winther, Tanja. 2013. "Space, Time and Sociomaterial Relationships: Moral Aspects of the Arrival of Electricity in Rural Zanzibar." In *Cultures of Energy*, edited by Sarah Strauss, Stephanie Rupp, Thomas Love, 164-176. Walnut Creek: Left Coast Press.
- Woodford, Chris. 2016. "Clothes Dryers." Accessed March 17.
<http://www.explainthatstuff.com/how-clothes-tumble-dryers-work.html>.
- World Commission for Environment and Development, WCED. 1987. "Our Common Future, report by the United Nations World Commission on Environment and Development." Accessed May 2. www.un-documents.net/wced-ocf.htm.
- Yonglong Lu, Nebojsa Nakicenovic, Martin Visbeck, and Anne-Sophie Stevance. 2015. "Five Priorities for the UN Sustainable Development Goals." *Nature* 520:432-433.

Appendix

Appendix A: Interview Guide: All interviews were done in Spanish, this is the translated version.

Interview Guide

The interview will change depending on if they have or not a Tumble dryer and then focus on understanding how they dry their clothes.

Date

Name of interviewee,

Type of house (detached/flat), outdoor patio)

Social Strata

Education Level

How many people live in this house?

How big is the household?

Approximately how much in a month is spent in consumption of electricity?

Do you own or rent?

How long have you lived here?

1- Drying Machines

1.1 Social Practice

- Why do you think we consume energy? How you imagine your life without energy?
- What do you think electricity gives you, in your household and you every day life? (time, comfort)
- How is your tumble dryer powered by? What influenced making this decision?
- What influenced you in having (or wanting to have) a tumble dryer?
- When did you get the tumble dryer? What kind is it? (Gas sourced, Electrical sourced, + brand/type)
- What do you think about hanging your clothes to let them dry instead of using a tumble dryer machine?
- What were your reasons for purchasing a tumble dryer?
- Did you have some advice on getting the right tumble dryer?
- What makes it important to have one?
- Do you socialize your tumble dryer? Or the way you dry clothes?
- Do you know anyone else who has a tumble dryer? How do other people from different strata dry their clothes?
- Do you ever talk to other people about tumble dryers?
- Does the family talk about the use of the drying machine? In what kind of situations? Examples? Who in the family interacts most with the washing conditions?
- Does this family make a budget and keep account of costs? (Who does?) -

- Do you think you're saving or not, energy and costs, by using or not using the tumble dryer?

1.2 Time and Space

- How many times a week does the clothes get cleaned and dried?
- How much time does it take to dry your clothes? (Machine vs. hanged)
- When was the last time you hanged our clothes instead of using the machine?
- What would you do are what do you do with this time gained or accessed because of a tumble dryer?
- If you don't need to dry your clothes immediately do you still use the tumble dryer? Even if it is a sunny day? Why?

1.3 Convenience

- Do you remember how you used to dry your clothes? What has changed? Do you think your quality of life improved because of it?
- Why don't you hang your clothes?
- Do you think tumble dryers makes (or would make) your life simpler, more comfortable?

1.4 Humidity, Smells

- Do you relate cleanliness with the smell of your clothes?
- Does it make you uncomfortable the probable smell of humidity in your clothes?
- How do you do to fight humidity when your clothes are hanged for being dried out?

1.5 Home Design (Scripts in Households, New houses or Old Houses?)

- Where in the house is the tumble dryer/ dryer zone located? What considerations led to this location?
- Did you change any physical set-up of the house because of the tumble dryer or the house was built this way?
- How did you interact with the house design and your drying machine?
- Do you think the design of the house influenced the decision for buying the tumble dryer? or hanging your clothes instead of having a tumble dryer?
- Does the house or flat has a special place for tumble dryers?
- Is the house or flat has sunny places where to hang the clothes for drying?

1.6 Everyday Life

- How would you describe your everyday life?
- What things do you do that doesn't involve energy consumption? (shaving machine)
- Do you think your everyday is related to your quality of life?
- How do you relate this two?
- Did your everyday situation influence your selection for buying a tumble dryer instead of hanging the clothes out (or vice versa)?
- How does energy consumption influence your everyday habits?

2. Quality of Life

- What is your overall assessment of the tumble dryers or your drying practices in your home? Do you think is essential to have a tumble dryer in order to have a good life?
- What do you think of people drying their clothes without using a washing machine? How do you think it looks to hang their clothes in the windows?
- What do you think of people who have a tumble dryer? Why do you think they have one?
- Do you think tumble dryers are essential for a good life?
- What do we give value to?
- What is a good life?
- What is the best way to live?
- What are you searching as a goal in life?
- What gives meaning to your search?
- What is a luxury? What is a need? What is a desire?
- What is Happiness? How do you measure it?
- How do you think people from other socio-economical strata see happiness, wellbeing, quality of life?
- Do you think Barranquilla is the best place to live? Why?
- What motivates you for buying a tumble dryer?
- How many members live in the household?
- What is essential for your life?
- What is essential for a good quality of life?
- What is a successful life? Do you consider yourself you have a successful life?
- What makes you happy?
- Do you link the material world to success?
- Do you link the material world to a happy life?
- If you can describe a perfect life is it the one you are living? How would it be?
- Do things; give more meaning to your time?
- Does the material things such as household appliances gives you more time in your everyday life? Are they linked to a better quality of life? Why?
- In which situations do you use the Tumble Dryers?
- What is your job?
- What are you and your family tasks in the household?
- What are the main things you like to do when you are free?
- What type of lifestyle do you live? Hobbies and habits
- Could you describe your normal day of work? Week
- Could you describe a normal day of no work? Weekends
- Could you describe you washing and drying practices and habits?
- Do you think you have or gain a better social status because of the drying machine?

3. Environmental Concern

- What do you think about climate change?
 - Which policies you think could help mitigate climate change?
 - Do you think ethics and nature come together? (how to ask this to low social economical strata)
 - Do you think there is a relationship between drying machines and climate change?
-
- What practices do you use in order to reduce you energy consumption and what factors motivates you to do this

Appendix B: Letter of Consent All interviews where done in Spanish, this is the translated version. All the informants signed this petition and accepted to participate on record.

Request for Participation in Research Project

"Energy Consumption: Tumble Dryers in Warm Places"

Background and Purpose

This master thesis will target the understanding of Social Practices, consumption behavior, and Quality of Life, through answering the research question on, why people use clothes dryers in sunny places. The strategies and social practices to meet the needs, though, can be sustainable or unsustainable (Raushmayer and Omann 2014, 112). Practices and habits in our consumption are linked to our social status to our ideals in the search of what we like to spend time and maximizing utility, because technology can influences practices (Wilhite 2012, 90).

Our society became dependent on the consumption of energy for our everyday practices; we search for comfort, luxury, health, cleanliness, food, mobility, communication, and they are all based on the consumption of energy. The issue is that, “The energy sector causes around two-thirds of today’s long- lived greenhouse gas emissions” (WBGU 2011. 3), and the increase on consumption is today’s synonym of wealth and good life.

The thesis will work a manageable sample between 5 and 10 people per group, with between 15 – 20 interviewees. It would be done through a snowball effect for the selection of the person interviewed, and they will be people that don’t know the researcher personally. The sample will include different stages of the life cycle, newlyweds no children, young couples with children, with and without children, middle age families with children leaving and not leaving in the house hold and elders, using a snowball effect. It will also check for household with new and old household designs, to understand the influence of the script of every household.

What does participation in the project imply?

The gathering of the data will be collected as semi-structured interviews in different social economical strata in the city, separating them between strata 1-2, 3-4, 5-6, being 5-6 the upper economical class, where most of the clothes dryers users are, between 1 - 2 hours of interviews. There will be a collection done by notes and audio recording.

What will happen to the information about you?

All personal data will be treated confidentially. Only the student and the supervisor will have access to this information. The list of names will be stored separately from other data in computers with password and locked in rooms. The informants will not be recognizable in the publication.

The project is scheduled for completion by JUNE 2016. The data will become anonymous.

Voluntary participation

It is voluntary to participate in the project, and you can at any time choose to withdraw your consent without stating any reason. If you decide to withdraw, all your personal data will be made anonymous.

If you would like to participate or if you have any questions concerning the project, please contact Erwin Hasselbrinck +47 482-54561, +57 320 681-0276 student, Harold Wilhite, +47-228-58924.

The study has been notified to the Data Protection Official for Research, Norwegian Social Science Data Services

Consent for participation in the study

I have received information about the project and am willing to participate

(Signed by participant, date)

Appendix C: Informants. 2015. Table with general information of every informant interviewed. Only their names are fictional.

Informants	General Information
Marta Juliao	23 of September at 3:00 p.m. Martha works providing maid services for a company. Lives in the household with one daughter and one son. They Live in a Strata 1 zone in the zone in the neighborhood: La Central, Soledad. Single mother of 3 Children. She has her own house with a backyard. No TD.
Alirio and Yismari SANTOS	29 of August at 11:00 a.m. Husband and Wife. Yismari works as a Kinder garden teacher and Alirio works for a community radio. They have 3 children, they all live in the household. They Live in a strata 1 zone in the neighborhood: El Bosque. They live in their own House; it has 1 patio and 1 terrace. No TD.
Manuela Castrillon (mom) Lupe (daughter) Julia (niece) Gonzalez	26 of August at 8:00 p.m. Manuela is a single mom living with her daughter, her niece and Manuela's mother. She works as an art teacher in a High School and a University; her daughter is in last year of high School and her niece is a university student and has a par time job in a coffee shop. Manuela's mom was very sick. They live in a strata 2 zone in the neighborhood: Corregimiento la Playa, Adelita de Char. She has her own house and it has a patio. No TD.
Sonia Delgado	29 of September at 4:30 p.m. Sonia works as the legal representative of a Urban Folk Music Group. She lives with her husband, singer in the band; and his 5 year old son; in a strata 2 zone in the neighborhood: Los Robles. They live in a rented flat, they have a balcony. No TD.
Rafael Perez	29 of September at 3:00 p.m. Rafael works as a taxi driver. He lives with his wife, 3 kids and mother in law. They live in a strata 2 zone in the neighborhood: Costa Hermosa. They live in a rented house; it has a patio and a terrace. No TD.
Lorena Pachon	25 of August at 10:00 a.m. Lorena is currently unemployed; she lives in her mother house, with her daughter and 3 siblings. In the backyard they have a room rented, where a family of 3 live. They live in a strata 2 zone in the neighborhood: Barrio Galan. They have a patio and a terrace. No TD.
Ana Marin Josefina Perez	25 of August at 4:00p.m. Ana is a retired biologist university teacher. She lives in a household with her mom one brother and 4 teenager nephews. They live in their own house in a strata 3 zone in the neighborhood: La Concepcion. They have a patio. No TD

Veronica Velez	24 of September at 3:00 p.m. Veronica works as a hair stylist and in different independent jobs. She lives in a household with her 2 daughter and she has 2 tenants in one of the rooms' house. She lives in a strata 3 zone in the neighborhood: Villa Carolina. She lives in a rented flat that has no Patio no Balcony . She has a TD.
Gilda Salazar	31 of august at 4:00 p.m. Gilda is a pensioned widow. She lives with one of his sons whose has recently been divorced. She lives in her own house in a strata 4 zone in the Neighborhood: Paraiso. She has a patio and a terrace. No TD.
Gloria Echeverri	27 of August at 4:00 p.m. Gloria is a single mom, divorced. She works as a real estate agent. She lives in her own flat with 3 children and her mother. She lives in a strata 4 zone in the neighborhood: Los Alpes. She has 2 balconies. She has a TD, but it has been damaged for over a year.
Lucia Muñoz	9 of September at 11:00 am. Lucia is a housewife. She lives in her own house with his husband and 2 sons. One of them is older than 18. She lives in a Strata 4 zone in the neighborhood: Villa Paraiso. She has a patio and a terrace. She has a TD.
Sonia Rueda	31 of August at 11:00 a.m. Sonia is a housewife, but she sells cosmetics and perfumes. She lives in her own house with his husband, but during the last 2 months, her daughter has moved in with his husband and their 3 children. They are moving in the city, so they are looking for new house. They live in a strata 4 zone in the neighborhood: Villa Campestre. They have a laundry space, a patio and terrace. They have a TD.
Maria Quintero	10 of September at 10:00 a.m. Maria is a event/wedding planner. She lives in a rented flat with her boyfriend, and her sister. They live in a strata 4 zone in the neighborhood: Ciudad Jardin. They have a backyard. They have a TD.
Patricia Olaya	1 of September at 6:30 p.m. Patricia is a nurse. She lives in her own flat with her husband and son (older than 18 years old). They live in a strata 4 zone in the neighborhood: Miramar. They have no balcony, no drying area. They have a TD.
Carlos Mejia, and Giovana Char	7 of September at 1:00 p.m. They are a retired couple. He used to work as a professor in a University. They live in their own flat. By the moment they are living with his son, wife and 2 children, who are moving in the city. They live in a strata 5 zone in the neighborhood: Alto Prado. They don't have balconies. They have a TD.
Julia Sanchez	22 of September at 3:00 p.m. Julia is a lawyer. She lives in her own flat wither her husband and 3 sons (older than 18). They live in a strata 5 zone in the neighborhood: Altos de Riomar. They have a balcony. They have a TD.
Sofia Suarez	3 of September at 11:00 a.m. Sofia is a journalist student. She lives in her parents own flat with her brother (older than 18). They live in a strata 5 zone in the neighborhood: Villa Santos. They have a backyard. No TD.

Magola Ramirez	19 of august at 8:00 p.m. Magola is a lawyer. She lives in her own house with her husband 2 children (older than 18) and 2 employees. They live in a strata 6 zone in the neighborhood: El Golf. They have 2 backyards one dedicated exclusively for laundry practices; and a terrace. They have no TD
Juliana Restrepo	9 of October at 11:00 a.m. Juliana is a housewife. She lives in her own flat with her husband and 2 adult sons; her 3rd son is in Argentina (all older than 18). They live in a strata 6 zone in the neighborhood: Viscaya. She has a balcony. No TD.
Claudia Olaya	8 of September at 3:30 p.m. Claudia is an artist, she is handicapped, she receives pension. She lives in her own flat with her sister and an employee, who is a therapist. No patio no balcony. They live in a strata 6 zone in the neighborhood: Altos de Riomar. They have a TD.
Manuela Cepeda	21 of September. Manuela is a psychologist. She lives in her own house with her husband and an employee. She has a daughter and sons who are both married. She has 4 grandchildren who stay with her during the afternoon. She has 2 backyards one is uses as a laundry space. They live in a strata 6 zone in the neighborhood: El Tabor. They have a TD.

Appendix D: Framework for organizing information.

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Appendix F: Pictures during fieldwork. All Picture where taken by the researcher.



Hasselbrinck, Erwin. 2015. *Men leasing a Washing Machine*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine in Low Strata*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Fences – one, in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Backyard in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Fences - two, in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Fences - three, in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Fences - four, in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Balcony in low strata zones*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Façade of the Buildings in low strata zones*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Façade of the Buildings- two, in low strata zones.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Clothes Hanging in the second patio High Strata Zone.* Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine in the Backyard*. Barranquilla.



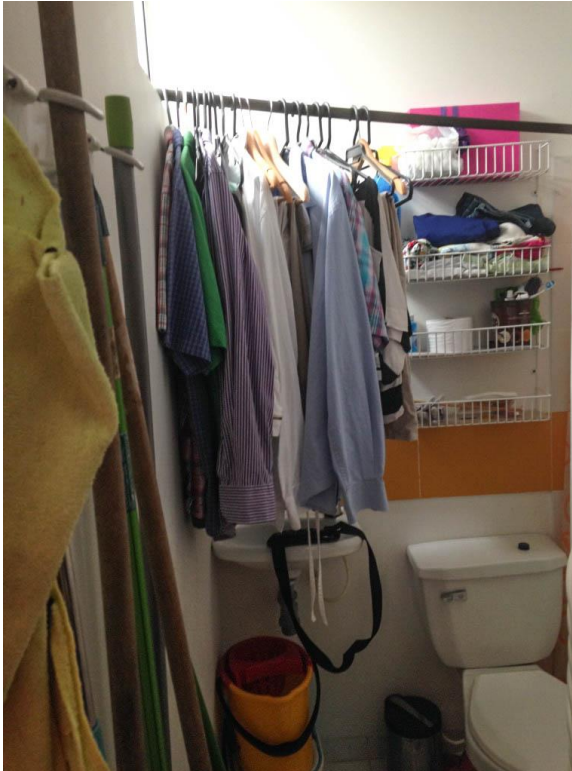
Hasselbrinck, Erwin. 2015. *Clothes Hanging in the Backyard*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine in the bathroom low strata zone. Barranquilla.*



Hasselbrinck, Erwin. 2015. *Washing Machine and Tumble Dryer in the laundry space a middle strata zone. Barranquilla.*



Hasselbrinck, Erwin. 2015. *Clothes hanging in the domestic service bathroom in a middle strata zone* . Barranquilla.



Hasselbrinck, Erwin. 2015. *Backyard from a middle strata zone*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine and Tumble Dryer in the Laundry Space a High strata zone*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine and Tumble Dryer in the Laundry Space a Middle Strata Zone - two*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Backyard in a middle strata zone*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Laundry Space in a second alley, in a high income zone*. Barranquilla.



Hasselbrinck, Erwin. 2015. *Washing Machine and Tumble Dryer in the Laundry Space a High Strata Zone - two*. Barranquilla.