

Josefin Persdotter

# Menstrual dirt

An exploration of contemporary menstrual hygiene practices in Sweden



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*Editor: Boel Berner*

## MENSTRUAL DIRT



*Josefin Persdotter*

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An exploration of contemporary  
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in Sweden

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# Abbreviations

	<i>English</i>	<i>Swedish</i>
ANT	Actor–Network Theory	Aktör–nätverksteori
FSTS	Feminist Science and Technology Studies	Feministiska teknik- och vetenskapsstudier
IUD	Intrauterine Device	Spiral, e.g., hormonspiral or kopparspiral
MHM	Menstrual Hygiene Management	–
PCOS	Polycystic Ovary Syndrome	Polycystiskt ovarialsyndrom
PMS	Pre-Menstrual Syndrome	Pre-menstruellt syndrom
SMCR	Society for Menstrual Cycle Research	–
STS	Science and Technology Studies	Teknik- och vetenskapsstudier
TSS	Toxic Shock Syndrome	Tampongsjukan



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scholarship: *The Wise Wound* (1978). While that book turned out not to be relevant to my research per se, I cherish my copy of it as a reminder that so many people close to me – from different generations and different parts of my life – have cheered me on.

*Tusen, tusen tack.*

*Josefin*

*Lerum, Sweden*

*2 May 2022*

# I. Introduction

## – the importance of menstrual dirt

This is a multi-method sociological inquiry into how parts of menstrual life come into being as dirty and polluted. Engaging with a wide range of empirical materials, this book explores the dirty details of ordinary everyday practicalities in menstrual hygiene management: how people roll their bloody pads, empty their menstrual cups, wash their menstrual genitals, throw out menstrual garbage, disinfect menstrual cups, and how they scrub blood stains off toilet seats, underwear, bathroom carpets and tile grouting. By focusing on everyday practical dealings with two specific menstrual hygiene technologies – the disposable externally worn pad, and the reusable internally worn cup – this research investigates how these hygiene practices and technologies (re)produce the cultural valuations and imperatives of menstruation, as well as how they impact individual lived experiences. It explores the materiality of dirt, investigating the sensations of dirtiness, foul menstruums, the discoloring of menstrual cups, the consistency of menses as it flows down the drain, and the stubborn persistence of stains. This study utilizes Mary Douglas' theorizations of symbolic pollution to reveal these taken-for-granted, unnoticed, and under-researched processes, showing that they in fact play crucial roles in shaping how menstruation is understood and experienced. By focusing on a Swedish context, this research particularly explores the makings of menstrual pollution beliefs in a society with high levels of gender equality as well as a comparatively high level of menstrual awareness.

### Menstruation is fundamental

Menstruation is a fundamental part of human existence. Approximately half of the world's population have, will have, or have had a menstrual cycle, for a total of about 35–40 years each. Each menstruant will experience an average total of 450 menstrual cycles and have menstrual bleedings for around five days per cycle, which amounts to about 2200 days

per life. While a very large proportion of the population experiences menstruation directly, it is also of relevance to society at large. For example, there are several serious chronic diseases related to menstruation (e.g., Endometriosis, Polycystic Ovarian Syndrome, and von Willebrand's disease). Disposable menstrual products as well as hormonal pharmaceuticals taken to alleviate menstrual disorders and/or suppress menstruation have been reported to have serious environmental impacts (Atkinson, Atkinson and Tarrant 2003; WEN 2012; Wedekind 2014). Moreover, though not all menstruants are women and not all women menstruate, menstruation is intimately connected to what it means to be, become, or be positioned as a woman. Menarche is considered a rite of passage into "womanhood." Menopause is a sign of aging and transition to a new life phase. The Society for Menstrual Cycle Research (SMCR) has claimed that the menstrual cycle, being one of "*the* most important differences between women and men," is one of the "fundamental arrangements of our society" and plays important roles in gendered discrimination (SMCR 2011, 1). Despite the undeniable importance of menstruation, there has been very little sociological research on the subject.

## Menstruation as a matter of dirt?

Menstruation's status as dirty, stigmatized and tabooed is a frequent feature in depictions of menstrual attitudes and experiences across the globe, and throughout history to date. Let me give some examples that are typically mentioned in critical menstruation scholarship. In the Old Testament, it is stated in Leviticus (15:19–33) that "Whenever a woman has her menstrual period, she will be ceremonially unclean for seven days. Anyone who touches her during that time will be unclean until evening" (referenced in, e.g., Buckley and Gottlieb 1988; Malmberg 1991; Bobel 2010; Linton 2011). Among Orthodox Jews, the practice of *Mikvah*, a ritual bath, is required of married women after the menstrual period (Bhartiya 2013). Similar ceremonious uncleanliness is present in most major religions. For example, according to some Hindu practices, menstruants are prohibited from entering the Temple, the kitchen, from bathing, and touching certain plants and foods during the menstrual period (Bhartiya 2013; Maharaj and Winkler 2020). In the Quran, it is stated that menstruation is "an impurity," and menstruating Muslim women are prohibited from entering Mosques and touching religious texts and from having sex, praying and fasting; after menstruation a ritual bath is

required (Bhartiya 2013, 524; Hawkey et al. 2017; Gottlieb 2020; Maharaj and Winkler 2020). In ethnographic accounts of menstrual beliefs in 19<sup>th</sup> century Sweden, menstruating women were prohibited from participating at baptisms, as menstruation could harm the infant, and according to folk beliefs, the presence of menstruants would dull weapons (Malmberg 1991).

Menstruation's status as dirty and polluted has also been reported to have had a great impact on how the medical sciences have treated and understood menstruation. Looking at the turn of the 19<sup>th</sup> to 20<sup>th</sup> century, many historian scholars have pointed to how the professionalization of gynecology included a pathologizing of menstruation, rendering it an illness and ailment rather than a natural event. Around the late 1920s and well into the 1950s, a popular and widespread idea in the medical sciences held that menstrual blood and the sweat of menstruating women contained a literal toxin that could cause anything from withering of flowers, to asthma and colic (Buckley and Gottlieb 1988; Clancy 2012; Newton 2016). Emily Martin (2001 [1987]) has shed light on menstruation's depiction as dirty in 1980s medical textbooks, highlighting how cultural valuations depicting menstruation as polluted interfere with medical framings. For instance, she compared descriptions of menstruation and semen. While semen was glorified, menstruation was described in relation to waste and deterioration. One textbook described menstruation using words such as "degenerate," "decline," "decrease," "weakened," and "deteriorate," while another stated that menstrual flows "consist of [...] blood mixed with endometrial *debris*" (Vander et al. 1985 cited in Martin 2001, 45, my emphasis), meaning endometrial waste. Semen, on the other hand, was depicted as a success story with words like "remarkable," "transformation," "mature," "amazing," and "sheer magnitude" (ibid., 48). To underline the misogynic culture made evident through the comparison, Martin concluded that "in fact only about one out of every 100 billion sperm ever make it to fertilize an egg; from the very same point of view that sees menstruation as a waste product, surely here is something really worth crying about" (ibid.).

Other scholars have highlighted how the menstrual hygiene industry has made menstruation into a matter of dirt, monopolizing menstruation by making it a "hygiene issue" or "hygiene crisis." Many have argued that the menstrual hygiene industry has played a major role in shaping a dominant culture of concealment surrounding menstruation and, thus, constructed menstruation – and women – as dirty, disgusting, and abject

(Malmberg 1991; Grosz 1994; Young 2005; Kissling 2006; Brumberg 2010; Bobel 2019; Wood 2020). The idea that menstruation and the menstruant are dirty or polluted has also dominated depictions of menstruation in film and television for many decades (Rosewarne 2012).

So-called “cycle stopping contraceptives” are gaining more and more ground across the world.<sup>1</sup> They have spurred a heated debate since the early 2000s, when some marketed them as “making periods obsolete” (Hitchcock 2008; Takeshita 2010; Kissling 2012). The SMCR has voiced serious concerns about these products, partly due to the lack of longitudinal studies on their effects, pointing out that cycle stopping contraceptives further medicalize or pathologize menstruation as well as that such technology “exploits menstrual-related stigma and promotes menstrual concealment norms” (SMCR 2011, 3).<sup>2</sup>

Several scholars have also shown how menstrual pollution beliefs are visible in our everyday language, pointing to how the many euphemisms of menstruation perpetuate and signal dominant discourses depicting menstruation as a pollutant, both by keeping the matter out of “polite conversation” – calling it “period” or “*lingonveckan*” (Swedish for “*lingonberry week*”) (Persdotter 2013), and by more explicitly positioning it as polluted, calling it “the curse,” the “unclean time of the month” (Newton 2016, 139), or even things such as “disgusting week” (“*äckelveckan*,” Sveen 2016).

However, the notion that menstruation is polluted is far from universal. As anthropologists and critical menstruation scholars have pointed out, the status of menstruation differs greatly between and within societies (e.g., Mead 1949; Buckley and Gottlieb 1988; Malmberg 1991; Newton 2016). What is more, these ideas change. The past decade has seen an unprecedented progression for menstrual rights, visibility, and awareness as the menstrual countermovement has gained strength across the globe (Persdotter 2013; Bobel 2017, 2020). Swedish menstrual activism has been publicly recognized in national news media since about 2013, calling 2014 “the year of menses” (“*mensäret*,” Zachariasson 2015). American news media has declared 2015 “the year the period went public” and “the year of the period” (Jones 2016). Menstrual equity projects working for “the affordability, accessibility and safety of menstrual prod-

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1. I refer here to cycle stopping contraceptive pharmaceuticals such as Seasonale, Seasonique and Lybrel.

2. I should also note that some have argued that Swedish menstruants are uncommonly sceptical about such hormonal pharmaceuticals, e.g., Kopp Kallner 2018.

ucts” (WVE 2022) continue to enjoy landmark wins. For example, more and more countries and cities (like Scotland, New York, Seoul, Australia, Kenya, and Uganda) are launching projects to provide free menstrual products in schools (Rodriguez 2021). It seems menstruation has at last received some of the acceptance and recognition so many have for so long argued it needs (SMCR 2011; Bobel and Fahs 2020; Fahs 2016; Young 2005; Bobel 2010).

Sweden has undergone nothing short of a revolution when it comes to menstruation’s place in the public sphere (Persdotter 2014; BBC 2021). Menstrual culture has been exhibited and covered in major venues, authors of menstrual books have gained stardom, and state funds have gone to exploring ways of improving care and recognition of menstruation in the workplace, just to mention a few examples. However, this change has not been a silent one, and it is not welcomed by all. Public menstrual art has been hotly debated, particularly by right-wing politicians. “Menskonst,” a word (meaning “menstrual art”) that I am apparently personally responsible for bringing into the Swedish language (Sundell and Farran-Lee 2019), has become a shorthand term used by right and far-right politicians to slander leftist feminism, and used as a tool to position their conservative ideas as comparatively “tasteful” and “proper” (see, e.g., *ibid.*; Havneraas 2020). The nationalist Swedish Democrat party has even motioned that menstrual art should be banned from public spaces (Omni 2018). This mirrors similar processes in other countries where menstrual art is simultaneously celebrated and censored or demonized (Røstvik 2019). I have encountered opposition from inside Swedish academia as well. In late 2013, at the dawn of the current liveliness of the Swedish menstrual countermovement, just before I was accepted into the PhD program, I was invited along with David Linton to give a talk on menstrual activism in a seminar series tied to my to be department. The presentation was well attended, and the audience was intrigued. I was ecstatic. However, it came to my attention later that someone did a “reply all” to the invitation writing the three letters “WTF?” When confronted by others on the mailing list, this someone claimed that they had only meant “Wide Theoretical Focus” and not a pejorative term. It is clear that some people do not think menstruation is a subject worthy of artistic, activist, or academic attention. In a nutshell, the argument of the opponents is that menstruation is filth that should be left in the trash bin and kept hush-hush, where it belongs.

## Motivations – why study the makings of menstrual dirt?

The fact is that I have not always thought menstrual dirt was a topic of real academic relevance. On the contrary, I have worked quite hard, since more than fifteen years back, to try to make menstruation into something more and other than dirt – elevating it into art, beauty, and humor, as well as seeing it as an important health issue. I remember well how, in early June of 2013, at the last session of the 20<sup>th</sup> biennial conference of the Society for Menstrual Cycle Research (SMCR), a representative from the so-called WASH sector raised her hand and asked the society what we thought of their idea to launch a world-wide menstrual awareness campaign, making the 28<sup>th</sup> of May “International Menstrual Hygiene Day.”<sup>3</sup> The room stirred with both joy and disagreement. While the body of scholars and activists was positive to the overall idea, they (we) were more than hesitant about the name. I remember arguing feverishly “Menstruation is so much more than hygiene!” Critical menstruation scholars have long maintained that what I call *the hygienization of menstruation* (i.e., the making of menstruation into a matter of hygiene and dirt) has far-reaching negative effects for menstruants (Brumberg 2010; Bobel 2019). When MENSEN – a Swedish menstrual advocacy and education organization that I co-founded – launched that day in Sweden, I was happy that we had decided to skip the “hygiene” and instead call it “International Menstruation Day” (“internationella mensdagen”). We all insisted that there is more to menstruation than managing its dirtiness. Therefore, I was quite astonished when I eventually found myself studying just that.

It took many years of research before I realized the potential value of and need for exploring the specificities of how menses comes into being as dirt. In part, the theme emerged as a reaction to how menstrual art was denigrated in the public debate. So, they consider it filth? Why do they? And what does that signify and result in? What can we learn about our society if we look at that which we (and some of us in particular) make into dirt? What can we learn about our lives if we narrow in on that which is deemed unworthy of attention? But primarily, the subject emerged through what participants in the study told me about their menstruation. Or more to the point: what they did *not* tell me. Concrete hygiene practices and the specificities of dirt were among the few things that even the most menstrually open and talkative participants hesitated

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3. WASH is often used to abbreviate the part of the international development cooperation that works with access to water and improvements in sanitation and hygiene.

to talk about or struggled to find words for. Moreover, it dawned on me that menstrual dirt is a largely unexplored issue. While menstrual pollution is always related to, or taken as a starting point in critical menstrual scholarship, it has never really been explored in depth by itself. Could it be that the critical ambition to elevate menses from the trash and to reposition it as not disgusting but beautiful, as worthy of attention, has led to an unfortunate avoidance? After these past few years, when the global menstrual countermovement has grown to an unprecedented size and strength, perhaps the time has come to confront the thing the movement has worked so tirelessly to erase.

In sociology, both menstruation and dirt have occupied a marginal position, though both subjects, respectively, are seeping with sociological relevance. Dirt is a site of power, argue sociologists of dirt, instrumental in hierarchical systems and practices, wherein the *Other* is constructed as dirtier than *Us* (Largey and Watson 1972; Pickering and Wiseman 2019). In her classic work *Purity and Danger*, anthropologist Mary Douglas famously claimed that “where there is dirt there is system” (2002 [1966], 44). Based on Durkheim, she argued that in what “the modern world” (ibid., 114) or “modern culture” (ibid., 144) defines as *dirt* there is information about large social systems of classification. Though dirt might appear to be a given, natural, biological and even scientific fact of life, that which is considered dirty emerges as such through social attributions of value when people charge it with *symbolic pollution*. According to Douglas, exploring behaviors surrounding gendered bodily substances such as menstruation can specifically make systems of gendered inequality visible.

Similarly, critical menstrual scholars have argued that menstruation refracts the status of women in contemporary culture, rendering menstruation “a lens” through which one can explore the world in productive, revealing ways (Bobel 2010, 2020, 1). The scholarship on everyday mundane technologies argues for the extraordinary impact of ordinary objects on daily life as well as wider social systems (Shove et al. 2007). Feminist science and technology scholar Maria Puig de la Bellacasa has pressed the values of studying “neglected things and devalued doings” (2017, 56), arguing that such research provides opportunities for generating new knowledge through which new things, and new ways of understanding the world, can come into being.

To take menstrual dirt seriously in academic research is to explore invisibilized, trivialized, and taken-for-granted goings on and turn them

inside out. It involves opening dirt up and starting new conversations. Exploring contemporary makings of menstrual dirt in a Swedish context thus offers great potentials for understanding important but undervalued aspects of what it means to menstruate here and now, as well as invisibilized but persistent gendered inequalities.

Furthermore, employing methods that enable us to study the role of a multitude of (f)actors offers specifically valuable opportunities. Analyzing tangible material, concrete menstrual hygiene practices and dealings with menstrual substance invites direct analytical contact with corporeal material substances as well as technologies, objects and physical environments. Sociology, critical menstrual scholarship, and feminist research have often had a tendency to overlook the material embodied aspects of life, leaving the material and embodied in what has been called “an under-theorized limbo” (Lykke 2010, 132; Haraway 1991; Braidotti 1994; Ussher 1997; Barad 2007; Smelik and Lykke 2008; Shipman Gunson 2016; Ussher 2006). The makings of menstrual dirt provide an empirical case that is well suited to the task of advancing social studies that take materialities seriously.

Last, but not least, studies of concrete hygiene practices remain comparatively few in a “Western” or “global north” context, while numerous studies have been carried out in the “global south” (see Bobel 2019). By focusing on a Swedish context, the research presented here is also motivated by providing a nuancing of problematic tendencies in the global debate on menstruation, which position “the West” as menstrually equal and fair, free from menstrual taboos, and “the Rest” as menstrually oppressive, “bizarre,” “backwards” (Bobel 2019; Winkler and Bobel 2021).

## Aim and research questions

This research aims to demonstrate and understand how menstruation comes into being as a polluted phenomenon in contemporary Sweden. It explores concrete menstrual hygiene practices and menstrual hygiene technologies. The objective is to make visible naturalized, routinized, trivialized and taken-for-granted practices, technologies and valuations in everyday life, and to open them up and see them as less given, more problematic and more possible to change.

By focusing on material, technological and embodied aspects of underexplored but central everyday practices of menstruation, the work strives to deepen our understanding of menstrual pollution beliefs

generally, and such beliefs in “Western” societies specifically. First and foremost, I position this study in relation to the field of Critical Menstruation Studies. Second, the study also aims to contribute to the Sociology of Dirt as well as to Science and Technology Studies (STS) research on mundane as well as gendered technologies.

In the research questions presented below, I distinguish between dirt and pollution, but I do not consider them to be diametrically opposed. Instead, I conceptualize them as overlapping in gradients. *Dirt* is primarily about material, intra-personal and sensory experiences, while *pollution* is more about the symbolic, social and inter-personal. Moreover, dirt is more emic, found more directly in the empirical material. Pollution is more etic, emerging in the material through an analysis thereof. Moreover, as per Douglas’ reasoning, by looking at dirt it is possible to identify symbolic pollution.

To achieve the aims and objectives outlined above, I have asked the following questions:

1. When and how does menstruation come into being as a matter of dirt and symbolic pollution, respectively?
2. How is menstruation defined, produced, practiced, negotiated and contested as a matter of dirt and pollution?
3. How do menstruants experience menstrual dirt and pollution emotionally and sensorially, and what do they do to manage menstruation when it comes into being as dirty and/or polluted?
4. How do different actors, human and non-human, partake in these processes?

## Points of departure and key concepts

As part of this introduction, I highlight a couple of points of departure that are part of the foundation of this research.

First, it is essential to question menstruation’s automatic equation to femininity and womanhood. Many scholars and activists have maintained that it is overly simplistic, essentialist, and exclusionary to do so (Bobel 2010; Chrisler et al. 2016; Berg 2017; Frank 2020; Rydström 2020). Crucially, not all menstruants are women, and not all women menstruate. Instead, it is important to find ways to engage with menstrual matters that are inclusive of trans and queer menstruants, as well as cisgender

women who do not menstruate. Nevertheless, I hold that it is equally important to keep talking and writing about menstruation as a women's issue. How society looks at, relates to, designs for, and behaves in relation to menstruation is deeply anchored in gendered inequalities between women and men. It is tied to the ways in which women are and have been misrecognized and discriminated against. Though often hotly debated in gender studies and feminist activism theorizing (see, e.g., Johansson Wilén and Sjöstedt 2021), the concept *woman* delineates a specific (though highly varied) group that as a collective shares a multitude of experiences and conditions. Talking about menstruation as an issue tied to women does inevitably exclude some, but this is not sufficient cause to avoid this framing. Instead, I suggest that we hold on tight to it, while *also* attempting to nuance the way those who menstruate (and do not) are denominated. Therefore, I write about both women and menstruants, depending on what perspective and what group is relevant in the situation.

While the term *menstruation* could connote the whole menstrual cycle, I use it primarily to denote the substance of blood, mucus and endometrial tissue that comes out of the vagina, i.e., the menstrual substance, during the *menstrual period*, i.e., the period during which menstruants have menstrual substance seeping out of their vagina. I avoid “period” for denoting menstruation as it is a euphemism. I use the terms “menstruation” and “menses” interchangeably. In addition, I use the term *menstruality* to encompass menstrual realities – “the actual lived experience of menstruation” (Wistreich 2012) – as well as how it is understood and enacted (see, e.g., Mol 2002).<sup>4</sup>

I define *menstrual hygiene practices* as practices that revolve around eliminating or avoiding menstrual matter, objects, or bodies that appear (by some interaction) dirty or polluted. In practice, this includes actions of using, changing, disposing of or cleaning menstrual hygiene technologies as well as attending to bodily hygiene in the anogenital area during the menstrual period. I avoid the phrasing menstrual hygiene *management*, as it connotes ideas depicting menstruation as a hygiene crisis, wicked, unwanted, and in need of discipline and control (see Bobel 2019).

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4. The concept has also been used within menstrual activism to denote “the arc of experience between the first and last menstruation, between menarche and menopause.” See: The Menstrual Health Hub 2022, “Glossary for the global menstrual movement.” <https://mhhub.org/glossary>, downloaded 10 February 2022.

I define *menstrual hygiene technologies* as technological devices used to assist the menstruant in achieving *menstrual hygiene* (i.e., menstrual cleanliness). The most common are marketed for the purpose (such as pads, cups and tampons), whereas others are used as such in practice (such as toilet paper and microwave ovens). I avoid the term “*femcare products*,” as it unnecessarily equates these products with cisgender femininity (Bliss n.d.), “*menstrual protection*,” as it enacts menstruation as risky/dangerous (Bobel 2019), and “*sanitary products*,” as the term sanitary more distinctly than “*hygiene*” positions menstruation as a matter of dirt (see Quint 2019). Moreover, calling them technologies serves analytical purposes. Critical menstruation and STS scholar Sharra Vostral has argued that these products are often not thought of as technologies because they are used (primarily) by women. She underlined that technologies used by women are often invisibilized as such and women are seldom thought of as users of technology (Vostral 2008, 14).

## Structure of the text

After this introduction follows Chapter 2, where I present previous research that is of particular relevance. In Chapter 3, I present my overall theoretical perspectives as well as my theoretical toolbox, and in Chapter 4, I present and discuss the methods used for generating and analyzing material. Thereafter follows four analytical chapters. The first two revolve around menstrual pads. Chapter 5 is an analysis of how menstruation comes into being as dirty and polluted when menstruants wear pads, and Chapter 6 covers what happens thereafter, when the pad is disposed of. The two chapters that follow focus on the menstrual cup. Chapter 7 is an analysis of how the cup is cleaned, and Chapter 8 covers the practice of changing – or rather taking out and inserting – the cup. These four chapters share a focus on technologies and together cover multiple menstrual hygiene practices as well as several varieties of menstrual dirt and pollution. The last chapter, Chapter 9, presents a concluding discussion of the combined analysis.

## 2. Previous research – exploring scholarship on menstrual dirt and hygiene

Little known to most sociologists, menstruation has actually been part of sociological thought since 1897, when Émile Durkheim, one of the founding fathers of the discipline, positioned menstruation at “the very wellsprings of social organization” (Buckley and Gottlieb 1988). He argued that the fact that one of the sexes bled made way for classifications, separations and orderings that structured foundational ways of thinking, talking and acting (Durkheim 1963 [1897], 2008 [1912]). Moreover, in the feminist classic *Le deuxième sexe*, Simone de Beauvoir (2011 [1949]) positioned menstruation as intimately connected to women’s subordination in society (see also Young 2005). Yet, as contemporary frontrunners of Critical Menstruation Studies have put it, menstruation has continuously been “relegated to the fringes” of academic scholarship (Bobel 2020), stubbornly disregarded and diminished as a subject unworthy of study. This, I would say, is particularly true of the social sciences, and especially of sociology.

Sociological studies that revolve around the issue remain few and far between. The international research database Social Sciences Citation Index (SSCI) at the moment of writing listed only 83 (more or less) sociological publications that even mentioned menstruation, starting in 1974.<sup>5</sup> In contrast, menstruation has been a relatively frequently recurring theme in the field of anthropology.<sup>6</sup> Early anthropological work paid a great deal of attention to how “exotic” cultures related to and managed menstruation as a taboo: a matter of sacred pollution, prohibit-

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5. A search of SSCI was done on 16 July 2021, and the search string was “(ALL=(menstru\*)) AND WC=(Sociology).” The SSCI counts also “sociobiology” as sociology, which means that many of the listed publications deal with subjects leaning toward more strictly biological issues, including exploring the physiological effects of breastfeeding on the menstrual cycle.

6. SSCI listed 421 anthropological articles that dealt with menstruation. Search was as above with adjustment: “WC=(Anthropology).”

ing menstruants from a variety of activities (e.g., Frazer 1922), followed by an internal pivotal critique that underlined the plurality of ways in which different cultures related to menstruation (e.g., Mead 1949; Buckley and Gottlieb 1988; Hanssen 2012; also Douglas 2002 [1966]). While the anthropological menstrual scholarship has been far greater in scope than the sociological ditto, the two sister disciplines combined still dwarf in comparison to psychology, where there are thousands of publications on menstruation.<sup>7</sup> The difference between sociology and anthropology compared to psychology is telling of psychology's position as both a social and natural science, as there is a relative abundance of bio-medical studies of menstruation. A search for articles mentioning menstruation on PubMed resulted in over 32,000 hits (October 2021). Medical studies of menstruation deal with a large span of issues, for example the endocrinology of the menstrual cycle and the cause, diagnosis, and treatment of related diseases. In relation to that, menstrual research in the social sciences, in general, and in sociology, in particular, is marginal, to say the least.

Hereto should be added that the field of menstrual research is heavily dominated by anglophone scholars, and there are very few social studies on the theme of menstruation from a Swedish and Scandinavian perspective. This imbalance has several problematic effects, because the cultural valuations of aspects such as gender, sex, and dirt differ greatly across countries.

In this chapter, I present relevant previous research from sociology and related disciplines and specifically outline research conducted in the fields of Sociology of Dirt and Critical Menstruation Studies. I describe studies that have explored the menstrual hygiene industry and its technologies, as well as studies of menstrual hygiene practices; I also discuss the values of researching menstrual dirt and pollution beliefs.

## Menstruation in sociology and beyond

Some sociological works do, however, foreground menstruation. For example, in *Issues of Blood: The Politics of Menstruation*, Sophie Laws explored the impact of men's attitudes toward menses in a UK context and coined the often-cited term *menstrual etiquette* (Laws 1990), which refers to how menstruants are expected to behave in relation to

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7. The SSCI listed 2524 psychological publications that mentioned menstruation. Search as above with adjustment: "WC=(Psychology)."

menstruation. Finish sociologist Elina Oinas (1998) has studied medical advice on menstruation. Several sociological studies in the nexus of STS, as well as Feminist STS (FSTS) studies from other disciplines, have revolved around the bio-medicalization of menstruation. Most common are probably studies focused on pharmaceuticals and their role in enacting and reshaping menstruality, as well as implied in enactments of race, class and femininity (Mamo and Fosket 2009; Shipman Gunson 2010, 2016; Hasson 2016; Oudshoorn 1994; Takeshita 2010, 2014; Martin 2001). Thereto, FSTS scholars have made visible the cultural (patriarchal) influence on scientific and technological aspects of menstruation. For example, Nelly Oudshoorn (1994) brought to the fore how introduction of the birth control pill created the idea of a normal menstrual cycle of 28 days, and Emily Martin (2001 [1987]) has revealed the cultural layers of bio-medical definitions and language of menstruation and menopause. Chikako Takeshita (2010) claimed that modern menstrual suppression pharmaceuticals have rewritten the norm of women's menstrual cycles, turning the users into "flexible bodies well-adapted to neoliberal capitalism" (ibid., 51, referencing Martin 1994). According to Elizabeth Arveda Kissling (2012), the marketization of these pharmaceuticals "contribute[s] to a gyniatric apparatus that defines the female body as abject and in need of transformation and regulation" (ibid., 501). Sharra Vostral (2008, 2018), a scholar of the history of science and technology, stands out because she highlighted the ways in which everyday menstrual hygiene technologies, such as disposable pads and tampons, have impacted menstruality. I will come back to Vostral's work below. However, very few sociologists and FSTS scholars have focused on the concrete practical matters of caring for one's menstrual hygiene. Natalie Moffat and Lucy Pickering's (2019) study of menstrual waste disposal in school toilets in Scotland is one important exception in this regard (further below).

Scholars from a range of other disciplines who have done menstrual work that is not sociological, but whose findings have great relevance to sociological inquiry into menstruation, have positioned menstruation as not merely a biological fact of life, but an intensely social phenomenon. Already in 1928, Margaret Mead reported in her classic study *Coming of age in Samoa* (1949 [1928]) that the severe PMS symptoms common to menstruants in industrialized societies were not to be found among the Samoans, thus highlighting the cultural variability of something that is often thought to be universal. Feminist psychological research

in contemporary settings has similarly shown the cultural and relational context dependency affecting how PMS, as well as menarche and menstruation, is experienced (King and Ussher 2013; Ussher and Perz 2013; Ussher 2006; Hawkey et al. 2017).

In *Blood Magic: The Anthropology of Menstruation* (1988), Thomas Buckley and Alma Gottlieb offered a comprehensive critique of the idea of “the menstrual taboo” and claimed that it is far from a universal and univocal phenomenon. Therein, they positioned Douglas’ theorization of symbolic pollution (2002 [1966]) as “particularly apt” (Buckley and Gottlieb 1988, 26) to study customs surrounding menstrual blood. I will come back to Douglas’ theories in chapter three. Buckley and Gottlieb emphasized that menstruation is not inherently polluted, but comes into being as such in specific cultural locations and situations, stressing that the ways in which different individuals and cultures relate to menstruation are culturally and socially contingent. Similarly, scholars working with historical data have shown the historical process of changes in cultural valuations of menstruation. It has been said that, up until the 1950s, menstruation was experienced with much more nuance and heterogeneity than today, when it is positioned as almost only a matter either of medicine or of hygiene (Malmberg 1991; Brumberg 2010; Kissling 2006). Two central institutions have been argued to have had an immense effect on how understandings and cultural valuations of menstruation have developed over the past century: the gynecological profession (see, e.g., Delaney et al. 1976; Strange 2001; Johannisson 2005; Shail and Howie 2005; Freidenfelds 2009; Lie 2012) and the industry of disposable menstrual hygiene products (see, e.g., Malmberg 1991; Kissling 2006; Vostral 2008; Freidenfelds 2009; Brumberg 2010).

Psychologists Ingrid Johnston-Robledo and Joan C. Chrisler (2013) made a robust theoretical argument, stating that menstruation is stigmatized and underlining the potentially detrimental effects of menstrual stigma on menstruants and women’s health, sexuality, well-being and social status. They have underlined the notion that high levels of self-consciousness, self-monitoring and hyper-vigilance during menstruation are frequently reported in studies on menstruality, particularly in cases of younger menstruants (ibid.). In a clever experiment, Tomi-Ann Roberts and her colleagues have shown the effects of menstrual stigma on social status. Participants in their study interacted with a female who would drop either a hairclip or an unused tampon from her handbag. The experimental conditions in which the tampon was dropped resulted

in lower evaluations of her competence, decreased the participants liking of her, and the participants even showed a slight tendency to sit further away from her (Roberts et al. 2002).

I see this broad range of social science scholarship on menstruation as having produced a body of knowledge that underlines the social nature of menstruation, arguing that no aspect of menstruation is simply a given fact or merely biological, but instead should be seen a result of historical or contemporary social and technological processes.

## The Sociology of Dirt

Dirt as an object of study has a long history of marginalization within academia (Smith 2008; Pickering and Wiseman 2019, 747). Social studies of “dirt, filth and waste” (Gershenson and Penner 2009, 11), however, constitute a growing interdisciplinary field, wherein the Sociology of Dirt builds much of its foundation on Norbert Elias’ (1978 [1939]) and Mary Douglas’ (2002 [1966]) work and positions dirt as a fundamentally social phenomenon (Pickering and Wiseman 2019, 762). Lucy Pickering and Phillippa Wiseman have argued that dirt is a site of power: “a tool used by those who define the dirty to oppress those they consider unclean” (ibid., 746). They stated that, historically as well as contemporarily, defining some as dirtier than others has been instrumental in racist, ableist, classist and sexist systems and practices (ibid.). *The Other* is socially constructed as dirtier than *Us*; the poor smell worse than the rich, the immigrants worse than the natives, and so on (Largey and Watson 1972).

Visible dirt is less prominent in contemporary everyday Sweden than it once was. Through a political and technological process of *hygienization*, the “dirty working class” has been “cleaned up” (Stavenhow-Hidemark 1970; Wetterberg and Axelsson 1995). Sociologists of odor have suggested that contemporary hierarchical powers of dirt are less about visible dirt and more about dirt as odor (Largey and Watson 1972). Malodor, just like all dirt, is utilized in social interaction as means to separate “us” from “them” – the “better” from the “lesser” – as a “potent symbolic means for creating and enforcing class and ethnic boundaries” (Classen et al. 1994, 169). Smell has also been argued to be used to structure gender relations. For example, some have stressed that Western culture stipulates that women should smell sweet, and if they fail to do so, they are treated as “traitors of the ideal of femininity” and rendered “objects of disgust” (ibid., 165).

The interdisciplinary field of Discard Studies overlaps with the Sociology of Dirt as regards their theoretical and empirical bases. Hervé Corvellec's (2019) theoretical discussion of waste and garbage bins and Moffat and Pickering's (2019) article on menstrual waste are two examples of particular relevance here; discussed further below.

## Critical Menstruation Studies

In recent years, what has come to be called Critical Menstruation Studies (Bobel et al. 2020) has grown in scope and recognition. This multidisciplinary field of research has menstruation as its object of study, along with the critical pursuit of revealing and challenging the powers and privileges that surround the issue (Bobel 2020). Though critical menstruation scholarship recognizes that menstruation is not always tied to negativity and secrecy, it is based on the explicit ambition to counter situations where it is. In *The Palgrave Handbook of Critical Menstruation Studies*, two of the editors specifically positioned menstruation as having been widely and strongly socially constructed as a matter of shame, silence, and secrecy (Bobel and Fahs 2020).

### *... and the value of including materialities*

As in the case of sociological inquiries into menstruation, most critical studies of menstruation regard matters of menstruation without engaging in depth with the physiological and material aspects of menstruation. Instead, most scholars explore the subject on a distinctly social or “discursive” level, putting little focus on materialities. To give some examples, there are studies that relate to people's attitudes toward menstruation (Laws 1990; Roberts et al. 2002; Marván et al. 2005; Wong and Khoo 2011; Chrisler et al. 2015), menstrual language (Sveen 2016), menstruation's representations in popular culture (Rosewarne 2012) and social media (Andreasen 2020), vernacular knowledges of menstruation (Newton 2016), menstrual education (Diorio and Munro 2000; Rembeck 2008; Stubbs 2008; Ghanoui 2020), discourses of biomedicalization of menstruation (Oinas 1998; Mamo and Fosket 2009; Shipman Gunson 2010; Hasson 2016), menstrual activism (Bobel 2008; Persdotter 2013; Fahs 2016; Bobel and Fahs 2020), menstrual product advertisements (Havens and Swenson 1988; Malmberg 1991; Courts 1993; Merskin 1999; Simes and Berg 2001; Linton 2007; Freidenfelds 2009; Mandziuk 2010; Yagnik 2012; Erchull 2013; Przybylo and Fahs 2020; Liu et al. 2021), the

history of the menstrual product industry (Vostral 2008; Røstvik 2022), and studies of so-called “menstrual hygiene management” (MHM) projects in the global south (Bobel 2019). Some historians have more concretely studied experiences of hygiene practices among menstruants in the global north (Malmberg 1991; Freidenfelds 2009), but critical engagements with contemporary concrete menstrual hygiene practices, particularly in countries like Sweden, are sorely lacking.

Moreover, I would argue that the field of Critical Menstruation Studies suffers from a bit of anemia, in that very few studies have engaged analytically with the concrete corporeal and sensory materiality of actual menstrual blood and discharge.

Feminist psychologist and critical menstrual scholar Jane Ussher has discussed the value of analytically considering menstruation as an object of study that is both material *and* discursive, because it is not possible to separate the biological, medical, and hormonal aspects from the psychological, social, and relational ones (Ussher 1997, 2006). She joined other proponents of so-called “feminist materialism” (Braidotti 1994), “corporeal feminism” (Grosz 1994), “material feminisms” (Alaimo and Hekman 2008), or “post-constructionism” (Lykke 2010) who have similarly stressed the importance of theoretical and analytical work that accounts for so-called “pre-discursive ‘facticities’” (Haraway 1991, 200; Braidotti 1994, 186) of bodies and “transcorporeal relations” (Lykke 2010, 131), perspectives that stress the inseparability of nature and culture (Haraway 2003) and emphasize the value of attending to the role of the material aspects of reality (Barad 2007). Sociologist and critical menstruation scholar Jessica Shipman Gunson (2016) has argued specifically that these theoretical approaches may enrich the sociological study of menstruation. She posed that an analysis based in the recognition of how “materiality and discourse combine to shape women’s embodied experiences” (Shipman Gunson 2016, 323) can provide a more holistic and nuanced understanding of research participants’ accounts.

## Studies of the menstrual hygiene industry

Explorations of how the menstrual hygiene industry impacts menstruality are key tenants of Critical Menstruation Studies. Several scholars have claimed that, since the dawn of industrial production of disposable menstruation products – in tandem with processes of hygienization in society at large, menstruation has been “commodified” (Kissling

2006) and transformed so as to become increasingly a matter of hygiene and use of commercial hygiene products (Vostral 2008; Malmberg 1991; Freidenfelds 2009; Kissling 2006). This process, which I propose to call the *hygienization of menstruation*, has been argued to have had far-reaching negative effects on menstruality and menstruants. Some have claimed that hygienization has devalued or even erased other ways of knowing and experiencing menstruation, for example as an aspect of reproduction, an embodied experience or, as in the case of menarche, a maturational event (Malmberg 1991; Kissling 2006; Bobel 2010; Brumberg 2010; Bobel 2019). Brumberg called this “a surrender of a life event ... to the sanitary products industry” (2010, 54). Moreover, several scholars have stressed that the hygienization of menstruation has shaped and amplified the culture of concealment surrounding menstruation. Denise Malmberg maintained that when disposable pads became a hygienic requirement, menstruation was constructed as unnatural on an ideological level, and crafted into something that had to be managed and controlled through means of these technologies (1991, 160). Similarly, Kissling argued that the menstrual hygiene industry has capitalized on ideas that depict menstruation as shameful; “sell[ing] shame along with the product” (2006, 5). Through hygienization, menstruation has been positioned as a shameful aspect of life.

The most common approach to studying the role of the menstrual hygiene industry has been to analyze its advertisements. Examples include explorations of early 20<sup>th</sup> century housewife magazine advertisements (Malmberg 1991; Linton 2007; Freidenfelds 2009; Mandziuk 2010), late 20<sup>th</sup> century ads on TV and in teen magazines (Havens and Swenson 1988; Courts 1993; Merskin 1999; Simes and Berg 2001; Yagnik 2012; Erchull 2013), commercially produced education materials (Erchull et al. 2002; Ghanoui 2020), current social media campaigns (Przybylo and Fahs 2020; Liu et al. 2021), as well as wider historical overviews based on multiple sources (Malmberg 1991; Kissling 2006; Vostral 2008; Freidenfelds 2009). Most of these studies have been conducted in Anglo-American contexts, but exceptions, including Sweden and India, paint similar pictures. The ads typically position menstruation as a dangerous “hygiene crisis,” do not show blood but instead a blue liquid, and emphasize menstrual concealment imperatives as well as the menstrual communication taboo. Several scholars have pointed out that framing menstruation as a hygiene crisis has served as an effective strategy to create or boost consumers’ “needs” for these products (Malmberg 1991;

Przybylo and Fahs 2020). Lately, the commercial narrative has shifted, adapting or co-opting contemporary feminist and menstrual activist arguments, as discussed by Ela Przybylo and Breanne Fahs (2020), Camilla Røstvik (2022) and myself (Persdotter 2020). Current renditions of menstrual product advertisements even include depictions of menstrual blood. Even if the advertisement narrative has shifted over the decades, very little has changed with regard to the physical products that are marketed.

A few scholars have focused on the actual industry rather than its commercials. Røstvik's work (2022) on the cultural history of the largest companies and Sharra Vostral's work (2008, 2018) stand out as examples that have used not only commercials but also archival data, legislative documents, and interviews with company representatives in an attempt to grasp the role of the industry. However, most of the research has focused on social and cultural aspects and left the concrete technological hygiene product and the use thereof to the side. Vostral's work stands out as an exception.

## Studies of menstrual hygiene technologies

In *Under Wraps: A History of Menstrual Hygiene Technology* (2008), Vostral explored the social history of the menstrual hygiene industry, paying previously unseen attention to the role of the actual technologies. She used Madeleine Akrich's script concept (1992) and argued that pads and tampons could be read as being inscribed with what Vostral called *technological politics of passing*, positioning non-menstruating as the normative ideal in an androcentric world. She proposed that menstrual hygiene technologies are designed based on the idea that their user needs assistance to be able to *pass* as a non-menstruant. She underlined how the products' advertisements, instructions, as well as their physical functions of absorption assemble to help the menstruant pass as a non-menstruant (Vostral 2008, 18), arguing that this serves to re-produce a culture of menstrual concealment as well as to reaffirm notions of menstruation as an abnormal pathology. She employed the concept of "passing" (Goffman 1963), used widely in contemporary critical scholarship, to discuss how non-normative subjects are charged with trying to "pass" as the norm (white, male, cis-gendered, straight, able-bodied, etc.), as well as arguments made by Iris Marion Young about menstruants effectively living "in the closet" by hiding their menstrual embodiment (Young 2005).

Vostral's focus was on historical data from the US. Thus, there is a lack of in-depth studies that explore the role of menstrual hygiene technologies in contemporary settings outside the US. Moreover, Vostral's focus was explicitly on concealment and hygiene, while she left out the other side of the coin, i.e., dirt and pollution.

## Studies of menstrual hygiene practices

Even though Critical Menstruation Studies scholars have argued that menstruation has come to be positioned as almost entirely a matter of hygiene, few studies have explored concrete everyday hygiene practices in any depth, especially those of menstruants in contemporary countries in the global north. In comparison, many studies have dealt with the theme of menstrual hygiene practices elsewhere in the world. There are studies on whether or not menstruating girls in West Bengal (Dasgupta and Sarkar 2008), Uganda (Hennegan et al. 2016), Nepal (Parajuli et al. 2016; Bhusal 2020), India (Shah et al. 2013; Sharma et al. 2013; Jacob et al. 2014; van Eijk et al. 2016), and Zimbabwe (Ndlovu and Bhala 2016) follow recommended menstrual hygiene instructions, whether they use and have access to disposable pads, use soap and water for washing themselves during menses, and whether their school toilets are sufficiently equipped to meet the needs of menstruants. Several international aid actors, such as UN Women, Water Aid, and the Swedish International Development Cooperation Agency (Sida), have taken part in projects under the umbrella of MHM work in the global south.<sup>8</sup> Though the global MHM work is certainly important, it reflects problematic colonialist tendencies in that similar studies are so infrequently carried out in a Western context. Scholars and activists such as Chris Bobel and Sinu Joseph have suggested that global MHM work suffers from common problems of international development, where “the West” tells “the rest” what is right and proper, often without ever truly having examined their own cultures and practices, but nonetheless applying them as universal norms to others (Bobel 2019; Joseph 2017). Further, Inga T.

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8. UN Women 2019, “Infographic: End the stigma. Period.” Published 6 October, <https://www.unwomen.org/en/digital-library/multimedia/2019/10/infographic-periods>; Sida 2016, “Menstrual hygiene management/feb 2016.” <https://www.sida.se/en/publications/menstrual-hygiene-management-feb-2016>, downloaded 16 February 2022; Water Aid 2009, “Is menstrual hygiene and management an issue for adolescent school girls? A comparative study of four schools in different settings of Nepal.” A WaterAid in Nepal publication March 2009.

Winkler and Chris Bobel (2021) analyzed how the online narrative on menstrual myths positions the menstrual practices of the global south as oppressive, “bizarre” and “backwards.” These arguments underline the importance of directing our gaze toward the concrete material hygiene practices of menstruants in countries like Sweden.

A couple of scholars have focused on hygiene practices in “the West.” Some architectural scholars have dealt with the practicalities of menstrual hygiene in relation to public toilets. Clara Greed (2010, 2016, 2019) has argued that standard public bathrooms in the UK are fundamentally sexist because they are built and planned in ways that persistently misrecognize the needs of women and menstruants. For example, Greed claimed that the high likelihood of long lines outside women’s public toilets is a clear sign of this misrecognition, directly linked to the fact that toilets (bathrooms) are not designed in ways that are suited to typical female physiology, including menstruation and other vaginal discharge. Some have claimed that this “creates more visits, longer stays, and higher stakes for creating and managing a mess” for women and menstruants (Molotch and Norén 2010, 5). Several studies have shown that women spend significantly more time in public toilets than men do (Baillie et al. 2009; Molotch and Norén 2010). An additional reason for this may be that women do or are expected to clean toilets (bathrooms) more than men do or are expected to (Linn 1985; Hirdman 2007; Ambjörnsson 2018).

A recent study by sociologists Moffat and Pickering (2019) centered on how menstrual waste as a dirty object is managed in concrete practices in one concrete socio-technological setting. They specifically highlighted how menstruants encounter what they called “numerous practical difficulties” (ibid., 771) when they menstruate outside their home due to the lack of easy disposal options. They showed how this *infrastructural neglect of menstruation* compels menstruants to wrap their used disposables in “toilet paper and then carry them around in pockets or bags” (ibid., 778). This practice, they stressed, requires both self-surveillance and time on the part of the menstruant. They argued that this neglect is linked to menstruation’s status as “bodily, female and belonging ‘behind the scenes of social life’” (ibid., 781) and that this is effectively a “material and symbolic exclusion of women from the public sphere” (ibid., 782). Their findings indicate the value of exploring dealings with menstrual dirt in other ways (other kinds of dirt) and other settings (e.g., the domestic one) as well.

Some studies of menstrual cup usage have shown that cups evoke sociologically relevant themes involving emotions and social boundaries (Coe-Björnell and Jansson 2015; van Eijk et al. 2019; Jivenius 2020). For example, some have reported that users feel disgust or embarrassment about cup cleaning practices that take place in the kitchen.

## Is menstrual pollution taken for granted?

It has frequently been reported, in both Critical Menstruation Studies and within the wider menstrual countermovement, that menstruation is awash with pollution beliefs and heavily tabooed, all across the world. However, some have criticized the field for taking for granted the notion that menstruation is polluted. Victoria Newton, author of *Everyday Discourses of Menstruation* (2016), maintained that there is a problematic tendency to take menstrual pollution beliefs for granted as a universal principle, stating that “[t]he notion that menstrual taboos are in place to suppress women is so often reiterated that it has become accepted as fact, rather than challenged as theory” (Newton 2016, 36). Newton – and many anthropologists with her – underlined the importance of studying each culture’s idea of menstruation, *in situ*, on its own terms, and cautioned that powerful notions of a universal menstrual taboo risk conflating all matters of menstruality with matters of pollution, when they might in fact be much more ambiguously experienced and defined.

This critique is insightful and important; any studies on menstruation need to consider menstrual pollution beliefs not as given absolutes, but instead as local possibilities in the situations we research. This bias may be especially common among *critical* menstruation scholars, as the idea of positioning menstruation as a pollutant is somehow built into the foundation of the field, with its focus on power and emancipation. Nevertheless, I do not think this prohibits scholarly enquiry into menstrual pollution. On the contrary, I would instead argue that acknowledging the non-universality of menstrual taboos entails a call for studies that take on the details of how menstruation is polluted and tabooed in practical, local, and everyday situations. Doing such work could contribute by both deepening out understanding of existent (and persistent) menstrual pollution beliefs in the global north and highlighting concrete opportunities for improvements in menstruants’ everyday lives.

## The opportunities at hand

To summarize, though the critical menstruation scholarship has done much to destabilize and question the hygienization of menstruation, the field has to a far lesser extent theorized and explored the actual goings on within the concrete hygiene practices and technologies. A few exceptions exist, but there is a tangible, and problematic, lack of studies of the actual material and technological practicalities of menstrual hygiene, especially in contemporary Western contexts. My study operates at the intersection of Critical Menstruation Studies, the Sociology of Dirt and STS studies of gendered everyday technologies. In addition to contributing by studying an underexplored geographical and cultural setting (Swedish-speaking menstruants around the 2010s), this study seeks to contribute by expanding and deepening these under-explored but crucial aspects of menstruality.

Through an in-depth, sociological analysis of menstrual dirt and pollution, this research seeks to expand the ways in which we can understand these largely hidden aspects of menstruality. By doing so, this research explores the very foundation of Critical Menstruation Studies. Although challenging menstrual pollution beliefs is key in the field, these beliefs have largely been taken for granted and accepted as facts rather than exposed to critical analysis and challenged as theory (Newton 2016). In other words, Critical Menstruation Studies scholars have dealt very little with menstrual dirt and pollution ideas as actual objects of research.

Although explorations of the role of the menstrual hygiene industry is a key tenant of critical and social studies of menstruation, the lion's share of the research field has focused on social, linguistic and cultural narratives. Only a few studies have focused in depth on the role of the actual technologies. This research continues Vostral's (2008) work to further our understanding of how the menstrual hygiene industry impacts menstruality by engaging specifically with the technologies and the concrete use of them. Vostral focused on their role in shaping menstruation into a matter of hygiene and concealment, but did not explore how these products are involved in enactments of menstrual dirt. This leaves concrete experiences and enactments of menstrual dirt underexplored and under-theorized and provides opportunities for expanding our understanding of how valuations of menstruation as polluted are shaped and maintained in practice.

In addition to menstrual hygiene technologies, this study will also analyze a multitude of other actors and factors involved in concrete menstrual hygiene practices. This research continues the work of Moffat and Pickering (2019), who have explored menstrual dirt and pollutants through sociological analysis in the concrete material settings of multiple technologies and objects. Their study, however, only focused on one specific kind of dirt (menstrual waste), in one specific context (a Scottish public school toilet), leaving a multitude of other dirt unstudied, including those that occur in the domestic sphere. In exploring more dirt and more hygiene practices with similar attention to the heterogeneous interactions of multiple actors, this study contributes by making visible other potentially neglected and devalued parts of menstruality, as well as by further exploring how concrete technological and material (f)actors take part in rendering menstruation dirty and polluted in practice.

### 3. Theory – ways of understanding dirt

Dirt can be a multitude of things. The word is synonymous with both earth, soil, scandal, and obscenity, but the meaning I deal with here is that of filth, muck, or grime. In Swedish, the equivalent word would be *smuts*. Everyday conceptualizations of menstrual dirt are seemingly obvious; a smudge of blood on one's trousers is often instantly understood as dirty. Here, however, I will complicate the matter, as there is in fact a complex process that proceeds and expands that definition. As touched upon in the previous chapter, Mary Douglas (2002 [1966]) and many scholars of dirt after her have positioned dirt as a fundamentally social phenomenon (Pickering and Wiseman 2019). But it is not solely social. It is also material and sensory; dirt can itch, reek, and be difficult to get off clothes, carpets and toilet seats. The processes through which dirt comes into being do not only include human ideas, but materialities, technologies and objects also play important roles.

In this chapter, I outline three levels of the theoretical basis for this research. First, I present a brief but foundational discussion of the relationality and multiplicity of ontologies. Second, I describe my theoretical perspective, primarily based in Douglas' theoretical discussions of dirt. Third, I present the theoretical tools and concepts I have utilized to address my research questions.

#### How things, such as dirt, come into being

I join the scholarly lines of thought labeled “practical ontologies” (Jensen et al. 2017) or “ontological multiplicity” (Mol 2002; Michael 2016), which are often put under a loose umbrella of the later theoretical developments of Actor–Network Theory or ANT (Latour 2007), sometimes called “Post-ANT” (Jensen et al. 2007; Michael 2016). In conceptualizing this way of viewing the world and my empirical data, I have particularly drawn from studies conducted by Annemarie Mol (2002, 2012). Mol has argued that reality does not exist prior to practice, but comes into being

through it, is *enacted* (2002), or made, in practices wherein heterogeneous sets of entangled actors interact to produce realities. Those actors are more-than-human and also include, for example, technologies, environments, texts and other objects. Many different kinds of entities play key roles in the enactment of a phenomenon.

In contrast to some similar approaches that highlight the “vibrant agency” of non-humans (e.g., Bennett 2010), Mol and others working from the foundation of ANT have stressed that no actor (human or non-human) is alone in practice, but that all are instead always entangled in relations with others (Mol 2012). Herein, meaning and matter continuously interact and have no distinct boundaries because they make reality through what some have called “a dynamic ensemble” in concert (Lemke 2015, 14; 2018). Understanding reality as something that is made in heterogeneous relational ways means that reality can come into being differently. Thus, I view menstrual dirt as something that does not exist by itself, prior to practice or interaction. Instead, it comes into being through the human-material-technological interactions of everyday practices. As such, the many different ways in which dirt is enacted produce *variations of dirt*, which are enacted in multiple, varied, and ambiguous ways. This perspective enables deep engagements with a range of different sources in the empirical field, including a multitude of different actors and factors in the analysis of how, and by whom and what, dirt and pollution are defined, produced, negotiated and contested.

## Mary Douglas and her theorization of dirt

Douglas’ *Purity and Danger* (2002 [1966]) is a cornerstone in scholarly explorations of dirt, cleanliness and hygiene (e.g., Kira 1976 [1966]; Berner 1998; Shove 2003; Smith 2008; Dion et al. 2014; Ambjörnsson 2018; Pickering and Wiseman 2019), commonly labeled the “*locus classicus* of contemporary theories of dirt and pollution” (Lagerspetz 2018). Thereto, prominent anthropologists of menstruation have suggested that Douglas’ investigations of pollution and body symbolism constitute one of the foremost theoretical contributions to social studies of menstruation (Buckley and Gottlieb 1988).

Douglas’ argument – that it is in trivial mundane dirt we can find “Western,” “secular” culture’s taboo and symbolic pollution – is central to this thesis. She elaborated on Durkheim’s argument of social classification (2008 [1912]) and positioned dirt as a matter of *symbolic pollution*. By

transposing some of anthropology's earlier ideas about so-called "primitive" societies back to "modern" societies, she critiqued xenophobic and racist tendencies within the discipline. Therein, she claimed that people in "modern" societies might think that their own "washing, scrubbing, isolating and disinfecting has only a superficial resemblance with ritual purifications," that their "practices are solidly based on hygiene" and rationality and that everyone else's are instead symbolic and ritual – "we kill germs, they ward off spirits" (Douglas 2002, 40). Instead, Douglas claimed that "Western," "modern" and "secular" ideas of dirtiness, cleanliness and hygiene are quite comparable to "primitive" or "sacred" beliefs about impurity and purity, implying that the main difference is merely semantic. "We denounce it by calling it dirty and dangerous; they taboo it" (ibid., xi), she wrote. Her argumentation enabled both a less xenophobic interpretation of other "primitive" cultures and a less biased interpretation of "modern" ones.

According to Douglas, dirt is essentially disorder. It comes into being in relation to a defined system of classification that establishes boundaries of an ideal order – that categorizes and decides what (and who) belongs where. Dirt is that which disturbs that ideal. In so being, dirt is relative:

Shoes are not dirty in themselves, but it is dirty to place them on the dining-table; food is not dirty in itself, but it is dirty to leave cooking utensils in the bedroom, or food bespattered on clothing; similarly, bathroom equipment in the drawing room; clothing lying on chairs; out-door things in-doors; upstairs things downstairs; under-clothing appearing where over-clothing should be, and so on. (Douglas 2002, 44–45.)

Moreover, dirt is a boundary phenomenon – it comes into being when it transgresses the borders of order: that which "does not fit" (Douglas 2002, xvii), that which "offends against order" (ibid., 2), that which is "matter out of place" (ibid., 44). Accordingly, explorations of dirt are inevitably explorations of order, or as Douglas famously put it: "where there is dirt, there is system" (ibid.). Dirt is not a fixed and stable thing, but rather comes into being differently; what is dirty here is not dirty there. Moreover, dirt is indicative of the boundaries of a system. Dirt can therefore be read as a contour, as a communication of what a system looks like and what hierarchies it entails. This way of understanding dirt suggests that dirt is a sociological and critical opportunity. Exploring dirt and how they are enacted provides opportunities for making invisible systematic orders and power more visible.

Douglas labeled ideas and valuations of dirt or taboo *pollution beliefs*. Pollution beliefs, she argued, have protective functions of systems; they maintain, support, and structure systems by setting up “spatial limits and physical and verbal signals” (Douglas 2002, xiii) that hedge or guard the system at its vulnerable margins (see also 171–172). That which is positioned as polluted is linked to dangers that threaten the person responsible for the boundary transgression (ibid., 3). Such threats (or *pollution dangers*, see below) could be punishments in religious or ritual form (e.g., prohibited from attending temple) as well as secular social sanctions such as contempt, exclusion, shame, gossip, or legal action. Herein also lies the understanding that pollution is contagious, that it puts others at some kind of risk if they are in close physical contact with the pollutant. On several occasions, Douglas has exemplified her argument using cultures that position menstruation as polluting, thus putting beings or objects that come into physical contact with menstruation or menstruants in some kind of risk (see also, e.g., Malmberg 1991; Rosewarne 2012).

Cleanliness is not merely the antithesis of dirt and demands some attention in its own right. Through Douglas’ reasoning, dirtiness and cleanliness are viewed as two sides of the same coin: If dirt is disorder, cleanliness is order, if dirt is “matter *out of place*,” then cleanliness is “matter *in place*.” Thus, if menstrual dirt is menstrual matter that defies order, menstrual hygiene practices take part in maintaining (and reshaping) order. Therein, cleaning is understandable as a kind of *pollution behavior* that aims to eliminate pollution, i.e., a practice of *ritual purification* (elaborated below). Douglas posited that, in modern society, pollution and purification ideas are greatly dominated by knowledge of bacteria and other potentially pathogenic microbes (2002, 44). However, she underlined that although we might think that we – in our “busy scrubbing and cleanings” and attempts to “keep bathroom cleaning materials away from the kitchen cleaning materials” – are performing rational and scientific acts to avoid disease, she argued that we are rather engaged in ritualistic practices of “separating, placing boundaries, making visible statements” (ibid., 85) in a symbolic system.

### *Douglas and system*

Many have criticized Douglas for being overly focused on systems and having granted too much stability and even deterministic qualities to them. Critics have claimed that she put too much emphasis on the internal unity of systems, societies or social groups (Cregan 2006; Duschinsky

2013; Zaloom 2020), and others have claimed that her dichotomization of *pure–impure* is simplistic, describing it as unduly absolute and universal (Hanssen 2012). Douglas herself admitted to “having made society more systematic than it really is” (2002, 5) but countered that pollution beliefs and behaviors are somewhat inevitably exaggerative because they “have as their main function to impose system on an inherently untidy experience” (ibid.). Although Douglas’ focus was on how systems are maintained, she did – throughout her book – emphasize that systems also differ and change (see also Zaloom 2020).

Relatedly, some have argued that Douglas depicted the system as overly powerful, in that it appears as the sole producer of pollution, existing somehow independently of and prior to that which is defined as impure (as discussed by Duschinsky 2013). This may suggest an incompatibility with the approach of ontological multiplicity discussed above. However, as I read Douglas, her “system” does not exist prior to practice, but is *made* through interaction processes. Douglas explicitly called pollution ideas, dirt, waste, and pollution behavior creative in the sense that they impact and make the world around them (e.g., Douglas 2002, 169). In this respect, dirt enacts system just as system enacts dirt – through processes of interactions. Hence, I do not read her so-called system as a pre-given entity that structures social life, but instead as a continuous process. Deciding what came first (the chicken or the egg problem) seems quite unnecessary. Instead, I argue that Douglas’ analysis pushes the pause button on one point in the process to show us her interpretation of it. In a process, any point has a before and an after. Order and disorder, place and out of place, cleanliness and dirt come into being in interactions. Thus, I position “the system” in Douglas’ reasoning as being enacted in practice through interactions of multiple actors, just like any other phenomenon.

### *Douglas on bodily fluids and menses*

As this research deals with bodily excretions, I will also attend to some of Douglas’ ideas that relate specifically to bodies and bodily substances. Here, two of her arguments are particularly central.

The first is that Douglas positioned the body as a system in itself, even calling it a “model” for “any bounded system” (2002, 142) in which boundaries are clearly defined (inside–outside). She wrote that “[w]e cannot possibly interpret rituals concerning excreta, breast milk, saliva and the rest unless we are prepared to see in the body a symbol of society,

and to see the powers and dangers credited to social structure reproposed in small on the human body” (ibid.). Any system of ideas, she argued, is most vulnerable – and therefore most regulated and controlled – at its margins. Bodily openings – such as the mouth or the vagina – symbolize specifically vulnerable points of the body, and “[m]atter issuing from them is marginal stuff of the most obvious kind” (ibid., 150). Accordingly, when bodily fluids are contained within the margins of the body they do not provoke, but when they transgress the body’s boundaries, they emerge as dirty, disgusting, or dangerous. For example, most of us are perfectly fine with swallowing saliva when it is in our mouth, in fact we do it all the time. But we have to spit it out into a cup, most of us react with strong revulsion to the idea of taking a sip of it.

Second, Douglas suggested that ideas about pollution dangers relating specifically to genitalia (which she labeled “sex pollution”) are “symbols of the relation between parts of society, mirroring designs of hierarchy or symmetry which apply in the larger social system” (2002, 4). She exemplified by explaining how many different cultures have sex pollution ideas wherein “each sex is a danger to the other through contact with sexual fluids, usually males from females” (ibid.). Menstrual pollution ideas were a frequent example in her accounts of “sex pollution” in different cultures (see, e.g., ibid., 150, 182, 199). Thus, menstrual pollution ideas (and behaviors, dangers, and purification rituals) are interpretable as expressing a certain hierarchy between men and women (ibid., 4), controlling boundaries and classification within a system, utilized to bind men and women to their given and separate roles (ibid., 174). Douglas also put forth the notion that sex pollution beliefs are relative to how clearly the system or society delineates power between the sexes. In a system where male dominance is part of the system but also contradicted by other principles – such as female independence – she claimed that “sex pollution is likely to flourish” (ibid., 176), whereas in cultures with more firm male dominance, there might not be any such pollution at all (ibid., 175). Or as Kate Cregan summarized the argument: “the more ‘civilized’ the social form, the more the body will be subjected to rules of suppression and control” (Cregan 2006, 105). As menstrual discharge is a matter that often very concretely transgresses gendered bodily boundaries, it could be understood as an obvious example of a symbolically polluted matter according to Douglas’ definition. It is bodily matter that seeps out of the body’s (the system’s) most precarious margins (Douglas 2002, 150), rendering it “out of place” (ibid., 44), breaking boundaries, and disturbing order just by

virtue of its inherent defiance of a clear classification of inside/outside the body. However, Douglas' reasoning regarding bodily fluids, in general, and menstrual fluids, in particular, has been criticized for being overly univocal and negative, and many scholars have highlighted that menstruation can have *both* positive and negative connotations (see, e.g., Malmberg 1991; Bondevik and Lie 2012; Fahs 2011). However, although her emphasis is on negatives and pollution, I would argue that Douglas does account for examples of cultures with positive valuations of menstruation (e.g., 2002, 175). Hence, menstrual pollution beliefs are not universal, but instead – as I would put it – they are dependent on the interactions of heterogeneous actors. Following Douglas' ideas about bodily and genital excretions, I emphasize that exploring whether and how menses comes into being as dirt has the potential to inform and make visible larger societal gendered orders and hierarchies.

### *Complementing Douglas*

Like most sociologists, I consider it important to oscillate between the different perspectives of the empirical case. This demands a theoretical move from the systems of order emphasized by Douglas, toward also including perspectives that focus on individual effects, as well as on concrete materialities and technologies. In this section, I will outline three theoretical perspectives I utilize to complement Douglas' work. In combination with her conceptualizations of dirt and pollution, these perspectives enable a holistic account of the multiple ways in which menstrual matter comes into being as dirt.

Douglas devoted some attention to behaviors of individuals in her reasonings about pollution behaviors, but she did not pay much mind to the lived individual experiences and effects of pollution (Hanssen 2012). I would argue that she even downplayed them. Douglas' work should therefore be complemented with theoretical perspectives on how individuals relate and react emotionally to themselves (as menstruants) as well as to menstruation (as matter or concept) being rendered dirty and polluted. Critical menstruation scholarship has long explored the individual effects of menstrual pollution beliefs and has a wide range of concepts of relevance. Combining Douglas' ideas with insights from this body of work provides theoretical tools that focus on the individual experience of menstruating, as well as the specificities of menstruality. In addition, I have also included theoretical perspectives that deepen our understanding of how specific emotions are central to dirt and pollution.

Even if Douglas positioned dirt as “matter out of place,” she paid little attention to the material world. Menstrual scholar Shipman Gunson suggested that Douglas’ framing of dirt actually does encompass materiality, as *matter* has to physically exist in order to be read as out of place (2016, 323). Be that as it may, there is very little in *Purity and Danger* about the material and sensory intricacies of foul smells, sticky fingers, and stubborn stains, but the focus is instead more on cultures, systems and classifications. To achieve a more holistic analysis of menstrual dirt-makings, material aspects of dirt need to be somewhat elevated so that they matter more. To do this, I include in the analysis sensory embodied experiences (recognizing that dirt can chafe, reek, itch, etc.) as well as material artifacts and technologies (such as clothes, floors, pads, and washing machines). By doing this, I invite a greater heterogeneity of actors into the analysis and enable a deeper understanding of the phenomena at hand.

## Theoretical toolbox

In this section, I present my theoretical toolkit – a set of conceptualizations that have been utilized to address the research questions. I present terms from Douglas’ work that conceptualize individual behaviors, relevant concepts from critical menstruation scholarship, theoretical interpretations of emotions deemed central to dirt and pollution, as well as ways of understanding the role of technologies and materialities in the makings of phenomena. These tools are further complemented with methods for including embodied sensory experiences as empirical data; this is discussed further in the methods chapter.

### *Pollution behavior and purification rituals*

Douglas called the ways people react to and behave around that which is polluted *pollution behavior*: “pollution behavior is the reactions which condemns or reject any object or idea likely to confuse or contradict cherished classifications” (2002, 44–45). For example, a pollution behavior can be an emotional reaction of disgust, or a decision to hastily scrub away a stain. Douglas positioned cleaning and washing as a kind of pollution behavior, but also more specifically labeled cleaning and hygiene practices *purification rituals*, a concept that highlights the ritualistic rationale and process involved in the seemingly profane scrubbing of dishes, sorting of things, or washing of hands. According to Douglas,

purification rituals provide a “kind of spatio-temporal frame” for everyday life (2002, 78), keeping us to our roles (ibid., 81), delineating boundaries of classifications, what and who goes where. Just like definitions of dirt, pollution behaviors and purification rituals can inform us not merely of “what goes where,” but also of wider powers, weaknesses, and hierarchies in the system at large.

Analytically, strong emotional reactions of revulsion or fear, as well as any definition of social sanctions or dangers associated with menstrual dirtiness, are readable as pollution behaviors and thus indicative of menstrual pollution beliefs. Thereto, when such reactions or definitions of danger appear in relation to dirt elimination and avoidance, they should be analyzed as signs or representations of potential purification rituals.

### *Imperatives of menstrual concealment*

In the critical menstruation scholarship, the effects of menstruation being positioned as a pollutant on the individual have primarily been discussed in terms of stigma. Erving Goffman (1963) defined stigma as an “attribute that is deeply discrediting” and that positions the stigmatized individual as a lesser being, labeled as worse and more dangerous than others. Many critical menstruation scholars have underlined the stigmatized status of menstruation (Kowalski and Chapple 2000; Seear 2009; Newton 2012; Johnston-Robledo and Chrisler 2013; Crawford et al. 2014; Bobel 2019; Wood 2020; Klintner 2021). Moreover, a series of concepts aim to encompass the many cultural rules of silence and secrecy that surround menstruation. They include frequently cited concepts such as *menstrual etiquette* (Laws 1990), the *menstrual culture of concealment* (Houppert 1999), the *menstrual communication taboo* – i.e., the cultural imperative to not speak of menstruation (Kissling 2006), *menstrual politics of passing* (Vostral 2008), the *menstrual mandate* of shame, silence and secrecy (Bobel 2019), and the *menstrual concealment imperative* (Wood 2020). Here, I will discuss the latter three in more detail.

Vostral (2008) argued that the overarching norm in contemporary Western society is that menstruants should *pass* (Goffman 1963), i.e., manage to be perceived by others as non-menstruants. Vostral specifically explored the ways in which menstrual hygiene technologies shape this ideal and assist menstruants in passing as non-menstruants. Passing, Vostral maintained, “puts pressure on people to perform, and it takes a great amount of energy” (2008, 169) as well as money (ibid., 172) to do so. Chris Bobel suggested that the culture of concealment (Houppert

1999) and stigma around menstruation mobilizes a *menstrual mandate*: “the expectation that menstruation should be silent and invisible” (Bobel 2019, 9f). This mandate, she argued, directs action; it requires that menstruants vigilantly manage menstrual stains, carefully conceal their menstrual products from others, and suppress discussion about menstruation in most situations. Jill Wood (2020) coined the concept *the menstrual concealment imperative*, referring to the cultural imperative to conceal menstruation. She underlined the ways in which cultural notions of menstrual concealment are internalized by the menstruant. Vostral’s, Bobel’s and Wood’s concepts underline how cultural ideas about menstrual concealment act upon and through the menstruants themselves, and how they are incorporated into the everyday practices of menstruants as forms of self-surveillance or self-governance (Foucault 1979, 2010). This vigilance takes time, energy and often negatively impacts agency, sense of self, and self-esteem (see, e.g., Martin 2001; Roberts and Waters 2004; Ussher 2004; Johnston-Robledo et al. 2007). I view these concepts through Douglas’ lens as encompassing cultural rules and ideas around symbolically polluted aspects of menstruation. They illustrate the typical pollution behaviors and purification rituals that surround menstruation. Specifically, they highlight practices that aim to make menstruation imperceptible to others.

All three concepts stress the fact that the culture of menstrual concealment puts significant pressure on the menstruant. The politics of passing exerts a *pressure*; the menstrual mandate does not suggest an action, but *mandates it*. It is not only advisable or right to conceal menstruation, but *imperative*. The concepts position what I here discuss in terms of menstrual pollution beliefs as powerful authoritative commands. I have used all three, but Wood’s concept proved particularly valuable in my empirical analysis. *The menstrual concealment imperative*, more distinctly than the other two concepts, specifies the aim of concealment, while also conceptualizing how some social rules of menstruation are experienced as imperatives, i.e., as musts, as authoritative commands, and how some rules may even seem impossible to not adhere to.

### *Emotions central to dirt and pollution*

In Douglas’ reasoning, that which is deemed polluted is hedged with different kinds of *pollution dangers*. When something is considered polluted, it is reacted to with negative emotions such as disgust, fear, or shame. Such reactions inform of system; they delineate where the boundaries

of right and wrong are drawn and thereby what is deemed threatening and dangerous, or even contagious. Similarly, scholars who have dealt with the effects of menstrual stigma have reported how menstruants often feel shame, embarrassment or disgust in relation to their menses or their menstruating body. Failure to conceal menstruation has been shown to be associated with a devaluation of one's character (Roberts et al. 2002), and feelings of disgust in one's own body. Shame and alienation are common features of the narratives on personhood presented in menstrual scholarship (Chrisler 2011; Johnston-Robledo and Stubbs 2013). Iris Marion Young claimed that, through internalizing the stigma of menstruation, "feelings of alienation and disgust" (Young 2005, 101) become given features of menstruation and embodiment throughout menstruants' lives, and effectively produce a distancing between the menstruating self and their menstruation.

Disgust has been described as "one of the most elementary of human emotions" (Arya 2014, 35) and "one of the most violent affections of the human perceptual system" (Menninghaus 2003, 1). In many ways, disgust is a distinctly embodied and sensory emotion, invoking physical reactions such as nausea or vomiting (see, e.g., Miller 1997). However, although disgust is often perceived as involuntary and instinctual, it may also be positioned as a strongly social and culturally contingent emotion. Yet that does not make it less embodied. Rather, a person's realignment of what they consider moral wrongs can give shape to sensory and visceral responses of disgust (Hansson and Jacobsson 2014). As such, even the most visceral reactions are tied to social systems of order. Moreover, disgust is not necessarily a unified aversive experience. Instead, Sara Ahmed (2004) suggested that disgust can be quite ambivalent, also entailing desire and attraction, for example. I emphasize specifically that disgust is 1) an inevitably sensory emotion that is 2) informative of pollution beliefs, but that it 3) should not be thought of as a stable unequivocal experience.

Psychoanalyst Julia Kristeva, quite inspired by Douglas, maintained that disgust and fear regarding bodily secretions are central to the very formation of the self. As infants, she argued, contemporary humans learn the boundaries of where "I" begin and end in relation to bodily excretions (feces, mucus, snot, urine, etc.). Because they are simultaneously part of one's own body and not part of one's self (Kristeva 1982; Cregan 2006, 96), we learn to expel them through *abjection*, i.e., by rendering them as "not me." According to Kristeva, the *abject* concerns "what dis-

turbs identity, system, order. What does not respect borders, positions, rules” (Kristeva 1982). Essentially Kristeva’s *abject* is highly comparable to Douglas’ general conceptualization of pollution, but built into abject and abjection is a focus on the self in relation to pollution. In addition to disgust, abjection is about fear. Theologist Rina Arya (2014) suggested that because of the abject’s threat to the self, feelings of disgust are paired with feelings of fear or worry. In this research, I utilize Kristeva’s reasoning regarding the abject to identify and discuss emotional reactions to menstrual discharge.

Relatedly, pollutants are also informed by shame. Sociologists of emotions have positioned shame as the prime social emotion, connecting it to breaking boundaries of social systems. Thomas Scheff (2000, 2003) has suggested that shame signals a threat to social bonds, a moral transgression in social life. Shame ultimately signals the threat that you yourself are at risk of being rendered “out of place,” and as such socially excluded.

Nevertheless, disgust, fear and shame are far from universal reactions to everything that counts as dirt. For example, ordinary cleaning routines are not necessarily carried out because one actively feels revolted by the sight of dirt (Lagerspetz 2018). In Fanny Ambjörnsson’s *Tid att städa* (2018), some interviewees described feelings of disgust or shame regarding disorder in their home, but her participants primarily portrayed their feelings about dirt in more neutral terms. Dirt does differ, and some dirt is more polluted, and more negatively felt, than others. However, while I agree that something can be dirty without inciting strong negative emotions, I underline that it might still be tied to strong pollution beliefs. The routinized and everyday nature of our dealings with dirt is likely to conceal the fact that cleaning and hygiene practices are intimately related – though sometimes covertly – to ideas of symbolic pollution.

### *Scripts, inscriptions*

In this section, I will focus on theoretical (and analytical) tools for studying the specific role of technologies and their design in the makings of dirt; I will also briefly discuss how these modes of thinking can also be applied to objects and materialities that have not been designed.

Menstrual technologies such as cups, pads and tampons play crucial roles in the makings of menstrual dirt in everyday menstrual hygiene practices. Elisabeth Shove argued that technologies have “dirt-defining

properties” (2003, 90), claiming that technologies (re)shape how and what is considered dirty. In recent history, the washing machine has redefined what it means to have dirty clothes, the vacuum cleaner has changed what it means to clean one’s home, and the flushable toilet has changed what it means to have a dirty bathroom (Shove 2003; Berner 1998; Penner 2013). Menstrual hygiene technologies can likewise be considered deeply involved in the makings of menstrual dirt.

To understand and account for the role of technologies in these processes, I use the concepts *script* and *inscription* developed by Madeleine Akrich (1992) and used frequently by STS scholars and increasingly elsewhere (e.g., Hubak 1996; Fallan 2008; Vostral 2008, 2010; Lydahl 2017). Akrich suggested that designers and engineers *inscribe* the things they make with certain hypotheses and anticipations. In defining the characteristics of a technology, those who design it do not merely imagine the object itself, but also how, by whom, where, and why it should be used. Thus, they defined users “with specific tastes, competences, motives, aspirations, political prejudices, and the rest” (Akrich 1992, 208), thus building into the object a certain vision of the world that becomes materialized in the qualities of the object they design. Akrich called this materialized vision of the world a *script*. As with a film script, the user of a technology is, so to speak, directed by the technology to play a certain role; the script *prescribes* (allows) and *proscribes* (forbids) certain behaviors and actions, sanctioning certain usages of the technology and certain settings and contexts in favor of others (Akrich and Latour 1992). Inscriptions can also be understood as ways for objects to communicate with humans. Akrich and Bruno Latour exemplified this by describing a hotel key with a large keychain. The largeness of the object tells its user that it should not be forgotten, that it should not be treated as other keys, that it should be returned to the hotel, and so on.

The script is not, however, a deterministic prophesy. Users might interpret the script in a different way than its designers intended, letting it play an entirely different role, or disregarding it completely (Akrich 1992). While the key instructs hotel guests in how they ought to behave, the guest is free to interpret or disregard the instructions. Rather than simply obeying the inscriptions, people commonly “modify, domesticate, design, reconfigure, and resist” the scripts of the technologies they use (Oudshoorn and Pinch 2003). However, while the hotel guest can use the key for a multitude of things, the alternative uses have limits: it will likely not fit in their pocket, it will not open other doors, and so on.

So, while technologies can be used in many ways that were unforeseen or unwanted by its designers, there are still aspects of it that are less malleable. In their book *How Users Matter*, Nelly Oudshoorn and Trevor Pinch (2003) positioned the script concept as a term that “describe[s] the *obduracy* of objects,” that highlights the “stubbornness” of technologies’ qualities, which – however modified in practice – to a certain extent enable or constrain specific human-technological relations and behaviors.

Scripts could be thought of as delineating ideal users (Akrich 1992), as stipulating their ideal needs, wants and abilities. A toothbrush, for example, delineates an ideal user with a set of teeth; a hand with a certain functionality; and a certain need for dental hygiene. Moreover, technologies can also be interpreted in relation to the needs and users that were *not* imagined by their designers. As technologies script, communicate, and reaffirm standards, conventions and ideals, they inevitably also exclude all that were not taken into account, who are not standard. This enables specific forms of subjectivities and disables others (Star 1990; Asdal et al. 2007). Using quite bold language, feminist STS scholar Susan Leigh Star argued that technologies elicit “torture” on those who cannot use them as intended (Star 1990). Star exemplified her own experience, arguing that she, being allergic to onions, continuously encountered a world that did not accommodate her specific needs, resulting in her experiencing small pains throughout everyday life. She suggested that this example is indicative of the “more serious and total suffering” of, for example, “those in wheelchairs barred from certain places or those whose bodies in other ways are ‘non-standard’” (ibid., 98). She emphasized that standards and conventions, regarding everything from what is typically put on hamburgers to how stairs are built, carry with them the rejection or exclusion of those who are non-standard (ibid., 94). Thereby, the script concept highlights how normative powers are built into technologies.

Adding to Akrich’s conceptualization, Marit Hubak (1996) proposed a distinction between two different forms that a script can have. So-called “physical scripts” are located in the concrete physical qualities of a technological object (e.g., its shape, size, the material it is made of), and interact directly with the user. “Socio-technical scripts” involve all kinds of communications that relate to the technology – such as marketing, brand-identity, advertisement, social media, and so on – and interact more indirectly with the user. Socio-technical scripts have more to do with the transportation of ideas regarding the product’s symbolic and emotional

meanings (Fallan 2008). Hubak (1996) claimed that scripts include both these kinds and meant that highlighting the distinction makes visible the heterogeneous networks of actors involved in the usage of a technology. However, the line between what counts as a socio-technical script and what counts as a physical script is in practice often very blurred. I mention Hubak's distinction here, primarily because it stresses the importance and value of including a diverse range of empirical data in attempts to understand technologies' inscriptions. It is not enough to look only at the piece of technology itself, but one should also include, for example, marketing material and user experiences.

In addition, objects and materials, such as menstrual blood, may also be understood as scripted. Though menstrual substance is not designed, it nevertheless – like designed objects – has certain capacities and qualities (contains certain biological materials, a viscosity, look, feel and smell, etc.). Like qualities of a designed object, these qualities have a “framework for action” (Akrich 1992) for the subject who interacts with it. The amount and viscosity of a bodily substance prescribe certain actions (absorption, collection), and if it is spilled on certain surfaces, its contents (e.g., hemoglobin) might make it particularly difficult to clean, and so on. Furthermore, scripting is a process that does not end at the point where a technology is put on the store shelf, but instead continuously transforms in cooperation with the user (Ingram et al. 2007), as well as the world around them. Correspondingly, non-designed materials and objects as well are continuously assigned (and modified) with new or reinterpreted scripts.

To sum up: Akrich's script concepts enable in-depth engagement with how non-human “actors,” such as technologies and materials in the empirical field, partake in processes of making menstruation into dirt and pollution.

## 4. Methods

### – ways of researching menstruality

I began this research inductively and broadly, by asking people to tell me the story of their whole menstrual lives to date. Thereafter, the process has been abductive, iteratively moving between generating material and analysis. Eventually, it narrowed in on the specifics of menstrual dirt and pollution and developed into a mixed-methods study, but mainly this is a qualitative study that utilizes a range of ethnographic means of inquiry.

I join the many scholars who position research not as an objective and neutral way of observing the world as “it is” by some “modest witness” (Haraway 1997), but instead argue for the inherent politics of all research (Haraway 1997, 1988, 2016; Asdal et al. 2007; Dána-Ain and Christa 2016). The *situatedness* (Haraway 1997) of the researcher, the context of the research, and the how the research is designed all factor into shaping what knowledge is produced. As Annemarie Mol put it, “[m]ethods are not a way of opening a window on the world, but a way of interfering with it” (2002, 155). Thus, research methods are far from simply being data collection tools, but instead also inevitably impact and influence the object of study: “[t]hey act, they *mediate* between an object and its representations” (ibid.). Research does not “reveal” or “discover” reality, it generates it (Asdal et al. 2007). Hence, the results of this study are not indicative of the world as it is, but of the world as it came into being in the specific situation that was this research.

In this chapter, I present the methods used for generating the empirical materials analyzed. I discuss the nature of the materials, and my methods of analysis. I begin by sketching out the research design and important ethical considerations. I thereafter present the research process as a chronological narrative, with the hope that the process can be examined (validity) as well as related to and modified by other scholars (transferability). I end by reflecting on the research as a whole.

## Research design

The design of the study has been guided by two premises: Given that the subject of menstruation has been under-researched in sociology, an open-ended, inductive-abductive, ethnographic approach was judged suitable, because it enabled me to explore new paths of inquiry along the way, instead of having them formulated beforehand. Second, I took the personal and intimate nature of the topic into consideration. I tried to structure sampling and field engagement in ways that facilitated rich accounts, even though personal hygiene practices (Nilsson et al. 1970; Shove 2003) and embodied experiences (Nettleton and Watson 1998) have been described as difficult for research participants to speak freely about.

The project was initiated in the spring of 2014, the process of generating materials began in 2017 and lasted until early 2019. Some materials were generated for this research (interviews, survey, study visit), others were already existing (texts, products, forum discussions) and were selected and analyzed for the purpose of this research. All were created between 2010 and 2021 and centered on Swedish-speaking menstruants over the age of 18 with primarily non-pathological menstruation. I chose to favor a more general menstrual experience over a more specific one.

### *Ethnographic attitudes toward following objects*

This research was informed by what Donna Haraway (1997) has called an ethnographic attitude. Unlike how many have equated ethnography with participant observation and *in situ* field work, Haraway insisted that an ethnographic attitude can be applied to any kind of empirics. It is, as she put it, “a mode of practical and theoretical attention” (ibid., 39) – a certain openness to the material and a practical doing (see also Lindén 2016). I did not study a specific locality, as has been common in ethnographies of the everyday (Hammersley and Atkinson 2007), but instead explored multiple sites. One might say that I considered menstrual dirt the ethnographic object and “followed” it as it was enacted in a variety of situations and locations. I have followed menstrual dirt through participant narratives (interviews, survey responses, diaries), online discussions, commercials, advisory texts, cleaning instructions, technological objects, and the regional wastewater plant. I was inspired by Mol’s *The Body Multiple* (2002), where she explored enactments of the disease atherosclerosis, see them as coming into being as different things (but still one)

in different physical locations (the patient's body, statistical reports, the operating table, etc.). Similarly, enactments of menstrual dirt were not confined to a given space, but took place simultaneously behind the closed doors of the toilet (bathroom), in public classrooms and magazine columns, in people's worried thoughts, in online discussion forums, and in microwave ovens. I have also drawn from life-history methods, sensory ethnography (Pink 2015) and methods of de-description (Akrich 1992; Akrich and Latour 1992), which are described in detail below.

I based the overall design on flexibility and responsiveness to the empirical material, and methodological choices emerged throughout the research. In ethnography, methodological and theoretical decisions are typically made as the work progresses, in tandem with the field and the analysis of the empirical material (Hammersley and Atkinson 2007). This iterative movement between empirical observations and theoretical generalizations has been called an "abductive approach" (Tavory and Timmermans 2009, 2014; Timmermans and Tavory 2012). In grounded theory, similar setups are described as "theoretical sampling" (Charmaz 2014). This lets concepts developed from initial analysis impact what sources and themes to pursue further. Thus, periods of focused data generation were followed by periods of analysis, after which I re-designed research questions and methods before generating more data. Different tools were employed at different stages, and the focus narrowed or "funneled" as the research progressed; initial open broader questions gave way to more specific ones.

Put simply, the research was structured into three main phases during which I generated different kinds of empirical materials. First, the work focused on a small selection of interviewees; second, it focused on a digital survey, and third, it focused on technological objects as empirical data. Each of these phases are described in detail below.

## Ethical considerations

According to the Swedish Act concerning the Ethical Review of Research Involving Humans (SFS 2003:460), because menstruating is partially a matter of health, it is defined as "sensitive personal data." Throughout the research, I applied twice to (and was accepted by) the Ethical Review Board (Etikprövningsnämnden): once before I conducted the first round of interviews and once before I sent out the survey. The ethical reviews covered aspects such as informed consent, confidentiality, sound data

management and storage, ensuring anonymity, and not doing harm to research subjects. Though these are all important aspects of ethical research, there are other things of equal value. I will discuss some of them in this section specifically, but also relate to them throughout the whole chapter.

Throughout the project, I took special care to value and respect the time and energy so generously provided by the participants. In practice that meant both larger and smaller things such as informing them correctly about the research, bringing baked goods to the interviews, letting interviewees chose times and locations that suited them, and making relevant technical preparations to ensure that the materials were correctly recorded and archived. I took note of when participants stated that they gained something from the research or felt some aspects had less value. Generally, it is my impression that most of them greatly valued, and enjoyed, just having the occasion to think, talk and/or write about menstrual aspects of life. Furthermore, several participants noted that my questions made them think about things they had never thought of before, which can be both a positive and a negative experience. For example, Nora, one of the interviewees who also replied to the survey, said that it was “pretty interesting and a little painful” to do the survey because “the very precise questions” had given her a new perspective on her body image and had made her question whether she was actually as free of shame as she thought she was. Others, however, noted that they found the survey odd and did not understand the relevance of it, but nevertheless responded.

Transparency is an important ethical concern in several respects. Throughout this chapter, I try to present the research process in a transparent way. In the section that follows, I will transparently describe and reflect on my situatedness as researcher. As Haraway (1988) put it, all researchers, and the knowledge they produce, are located in specific situations. My specific physical and social locality; my white, rounded, 30-something, semi-functional body; mixed-middle-class upbringing, my position in academia, my personal menstrual experiences, my political engagements, and much more, all situate me as researcher. I will highlight below two aspects that have particularly impacted this research: my menstrual activism and my personal experiences of menstruating.

### *Situating the research(er): activist*

I have worked with menstruation since 2006. It began through art, then social media activism, and grew into organized awareness raising and state-funded education projects. The same year I began this research (2014), I, together with Rebecka Hallencreutz and others, formally founded the organization MENSEN – forum for menstruation. Since then, I have in parallel with the research been involved in the organization's activities. I have co-chaired and chaired its board, worked in its election committee, arranged educational events, developed and led study circles, written applications for funding, written op-eds and blog posts, and directed projects. Although many contemporary scholars have acknowledged the political qualities of research, the idea of keeping activism and scholarship as two distinguished separated spheres is still strong in academia (Hale 2001; Dána-Ain and Christa 2016) as well as outside it. In the earlier years of this project, I made considerable efforts to understand how to separate the activist part of me from the scholar part. I have since realized on several occasions (an understanding that apparently needs to be updated regularly) that I, somewhat inescapably, am both at the same time.

Critics have questioned whether activist researchers are qualified to maintain a proper distance or neutrality in relation to their field. I have found the query odd, as I firmly believe that there is no such thing as truly neutral and unbiased research and that there is greater value in transparently conveying where one is coming from, than in trying to remove or conceal it (see, e.g., Haraway 1988). Moreover, the fact that I am also an activist does not mean that I have lost my scholarly skills and qualifications. The academic profession includes tools and knowledges that enable a critical eye on one's empirical field as well as one's own biases. There are numerous measures in place to foster knowledge production that is nuanced, complex and that dares to challenge preconceived notions.

Many scholars have raised their voices for an engaged scholarship in sociology and social science (Burawoy 2014; Sprague 2016). I firmly plant my feet on that ground and view this research as a continuation of my activism. I join feminist scholarship that has a long history of researching with activist purposes aimed at improving conditions for women (Hale 2001; Dána-Ain and Christa 2016). I join critical menstruation scholars who seek to challenge and change the knowledge gaps, stigma and

misogyny surrounding menstruation (Bobel 2020; Bobel et al. 2020). And I join feminist STS scholars who aim to unmask, investigate and rethink suppressive effects, hierarchies and (patriarchal) power structures built into the design and use of technologies and scientific knowledges (Haraway 1988; Star 1990; Hess 2001; Åsberg and Lykke 2010; Puig de la Bellacasa 2017; Adrian et al. 2018).

My activism has greatly informed and fertilized this research. In fact, had it not been for my activism, I would never have considered the subject of menstruation worthy of study. Mine and others' activism also likely increased my access to research participants. For example, I personally, years ago, set up one of the digital forums I used for disseminating calls for participants. Also, the current strength of the menstrual countermovement (Persdotter 2013, 2014; Bobel and Fahs 2020) has probably increased interest in participating and might have increased the level of frankness in the participants' narratives.

I also hope that the research has contributed to the movement. I have shared and discussed tentative results in activist circles by relatively frequently participating in public events, podcasts and the like. Also, the further I got into my training as an STS sociologist, the more I could contribute by applying critical analysis to medical and biological accounts on menstruation as well as by engaging critically and theoretically with the movement as a whole (Persdotter 2020).

### *Situating the research(er): menstruant*

I have menstruated regularly, with some breaks, since 1997. In ethnographical works, researchers who study a group they are members of themselves are often referred to as *insiders* (Bremer 2011). My menstrual insidership has had several positive effects on this research. For one thing, it seems to have helped instill a trust of sorts, a sense “that I’m on their side,” a “friendly” researcher, as one participant put it (see also Speed 2006). I think it helped the participants talk more freely and openly, because they did not feel they were being observed by (so much of) an outsider, enabling a less defensive more overt kind of communication. Moreover, it has aided in the collection and interpretation of the materials. A range of personal experiences of different menstrual hygiene and reproductive technologies, and embodied experiences tied to the menstrual cycle, assisted both in asking questions during interviews and in interpreting silences and insinuations.

Although insidership is by no means a prerequisite for good science (see, e.g., Bremer 2011), insiders can generate another kind of knowledge than outsiders can (Sprague 2016). My insidership may have facilitated talk about under-vocalized and concealed aspects of menstruation. For example, narratives of the gory details of how to change your menstrual products did not pop up unprovoked in the interviews, but needed to be probed for and were greatly assisted by the fact that I knew about the phenomena and sometimes even shared my own experiences with the participants. On the other hand, there were surely many instances in which the commonality in experiences meant that both the participants and I took things for granted, which entails the risk that something may have been left out. Moreover, the *insider researcher* is a rather simplified and misleading category (see Sprague 2016). In reality, no one is a 100 percent insider or a 100 percent outsider. I obviously do not share the complete menstrual experiences of my participants, nor all other aspects of their lives. I have thus surely made some biased assumptions and misunderstood things based on my own personal experiences. This is a common obstacle in insider research (ibid.). To some extent, my activism might have balanced this. So many have talked to me about menstruation since 2006 that I, long before the research began, learned to think of menstruation as a diverse experience among a heterogeneous collective, rather than as my own personal one. All researchers bring a combination of advantages and disadvantages with them to their research, which present both hindrances and gains (Wax 1979 in Sprague 2016). I have tried to remain reflexive concerning how my situatedness impacts the research I do and to craft a process that helps me generate reliable and relevant knowledge, despite as well as because of myself.

## Explorative work with a small sample

During the first phase of the research, I focused on a small number of interview participants with whom I explored the theme of menstruation broadly, through a sociological lens.

A call for interest was distributed through online channels I deemed likely to reach people who would like to participate. I posted it in forums and groupings of menstrually interested people on Facebook and Instagram and shared it with national organizations of relevance, such as RFSU, Sweden's largest non-governmental organization working with sexual and reproductive health and rights. The population

reached was judged to be relatively homogeneous, primarily made up of (cis)women, of Swedish ethnicity, (upper) middle-class, and mostly between 18 and 35 years of age. This was a so-called purposive sample (Flick 2013), made with the aim to find participants who felt comfortable with sharing detailed narratives of their menstrual lives – narratives that would likely generate rich empirical materials. The call was open for three weeks, during which 85 persons registered their interest in participating. The lion's share were born in the 1980s (41 persons) or the 90s (32 persons). All of them responded that they had female biological sex, two identified as non-binary. All respondents were residing in Sweden at the time of the call, and most were born in Sweden. The respondents were asked to describe their relationship to their menstruation, which generated short texts that were all fascinating, many strongly emotive, and as a whole they portrayed a wide variety of menstrual experiences. Based on the information given, I selected six participants who represented this great variation in menstrual experiences. I also tried to achieve variation in age. The ambition was to generate a small but varied sample and engage deeply with those participants, the goal being to generate rich and “thick” empirical data (Marshall and Rossman 2011). An additional participant was included through snowball sampling (*ibid.*). None of the interested individuals seemed to have chosen not to menstruate (which was an effect of how the call was formulated, see Appendix A). When one interviewee mentioned friends that had done so, I asked her to ask whether any of them might be interested in an interview. Thus, one more participant was recruited.

These first seven participants chose the pseudonyms Aurora, Martina, Agnes, Anja, Daniella, Charlotta, and Petra, and all identified as she/her. Most of them were born in Sweden in the 1980s or 90s (see Table 3). All contributed what I called a *menstrual life-history interview* (built from life-history interviews; see, e.g., Dána-Ain and Christa 2016), i.e., a narrative of key menstrual memories throughout their lives. Six of the seven also contributed what I called a *menstrual-cycle interview* (one was conducted at the same time and in combination with the menstrual life-history interview), which dealt with details of their latest menstrual cycle. In addition, four of the participants who did two interviews contributed a diary between the two occasions. In total, this first round of data collection resulted in thirteen interviews and four journals, as well as some additional materials such as photographs of objects (see Appendix B). In most cases, the interviews were conducted in the participants' homes.

### *Menstrual life-story interviews*

I instructed the participants to tell me about their menstrual life beginning at their earliest menstrual memory and ending on the day of the interview. I had prepared a list of guiding questions to facilitate talking (see Appendix C), but they were rarely used. Instead, the participants' stories poured out of them. There was so much of menstrual life to talk about. Already during the first interview, it became obvious that the lens of menstruation could generate strong, deeply intimate narratives of much more than just menses. They told about life-changing dramas, dotted with mundane details of menstruality. Aurora's narrative, for example, was a coming-of-age novel. She told of menarche, of using pads and tampons and paper towels, of chaotic heavy flows and debilitating cramps, of high school classrooms, of runs through the woods, of birth control pills, sexual experiences, and of giving birth and becoming a mother, as well as of the practicalities of doing laundry.

Martina's story was the stuff of a long-running TV drama. Season one: her teenage years; her first period, embarrassing family dinners, cataclysmic pain, school nurse, dad, boyfriend, brother, mother. The final episode of the season ended with her as a twenty-something Anarcha feminist, standing by a lake, washing cloth pads and loving her fertile bloody body. Season two: a heartbreaking depiction of her trying to get pregnant: IVF treatment, sex on a schedule, miscarriages, every period a catastrophe. Season three: a perilous twin pregnancy in which Martina almost bled to death. A risky cesarian, two premature babies, one of them died tragically after only five days out of the womb. Gruesome months at the hospital, a precious little daughter gaining strength in an incubator. Season four: first the divorce, the broken relationship, the single mother, a heartwarming montage of the little girl growing up to become a young woman. The daughter's first period, the mother's work life, an overflowing menstrual cup on a client's sofa. Dating a man that surprisingly liked menstrual sex. The daughter bleeding as much as her mother, openly asking about everything menstrual. Mother and daughter laying in the big cozy sofa in cruel pains and heavy flows, watching their shows, bonding in their endurance. Even if I could have devoted the whole thesis to Martina, or any of these first interviewees, it wouldn't have done their stories justice. Instead, only fractions of their stories are included in the final text.

### *Menstrual-cycle interviews*

I met five of the participants for a second interview, scheduled so that one menstrual bleeding period had occurred between the two interviews. This interview focused on the concrete, embodied, sensory, and material experience of menstruating. Four of the participants contributed a diary in which they had noted details of their menstrual everyday life, mostly around their bleeding days (see Appendix D for diary instructions). Solicited diaries are often used to capture everyday practices that might not otherwise be recognized (Ellegård and Nordell 1997; Kenten 2010). They are particularly suitable for obtaining information about that which is considered personal and private (Hammersley and Atkinson 2007, 126f), which may be hard for the researcher to study directly through, e.g., observational fieldwork. I structured the interview with an interview guide that was modified based on the participants' prior interview and diary when applicable (see Appendix E).

The menstrual-cycle interview guide was also inspired by sensory ethnography, which helped focus the interviews on the embodied, material, sensory experiences of menstruating (Pink 2015; Petersen 2016). Sensory ethnographers have argued that much of the social science research automatically generates material on some senses (primarily vision) and omits others (Pink 2015). In their view, a great deal can be gained just by asking questions about other sensory experiences, such as olfaction (the sense of smell), touch, or even how one's internal organs are perceived (see Petersen 2016). I therefore asked questions such as: What does that particular pain feel like? Can you describe the sensation in your body when the menses trickles down out of your vagina? What is the consistency of your menses on day four of your cycle? What does your menses smell like? Moreover, I asked the participants to describe details of everyday menstrual practices: How the substance behaved when they emptied the cup, how they changed their pads and tampons, and how they washed their reusables.

I brought to each interview a cardboard box with menstrual hygiene technologies. First it only contained disposable pads, a menstrual cup, and some tampons, but as the participants brought up new items, I added those to the box (tampon with applicator, cloth pad, sponges). The idea was, inspired by Sarah Pink (2015), that the technologies would facilitate talking about the more material and sensory aspects of menstruation. I initially asked them to bring and show their own

menstrual tech, but I realized after the first couple of interviews that this did not work. One participant explained that she could not show her cloth pads because they were in the laundry. Also, several of the participants described technologies that they had long ago thrown away.

While the life-story interviews nearly automatically generated rich accounts wherein the participants shared very freely and openly, the diaries and the second interview were, on the whole, more halting. Most of them just made brief – though valuable – notes in the diary. Perhaps my overly detailed and rigid instructions were partly to blame. In the interviews, the questions resulted in brief replies that often required follow-up questions to generate richer accounts. As I interpret it, the participants had ample tools for telling their menstrual life story and were comfortable with the format. They had an idea of the narrative, knew what language to use, and what was expected of them. There were available repertoires to relate to and build from. When I asked about the sensory and material experiences of menses, their responses seemed much more faltering, like they had not spoken or thought much about it previously. They searched for words, tried out metaphors, crafted new ones. It is not uncommon for bodily experiences to be non-spoken or alingual (Vannini et al. 2012) and, thus, difficult to put into words. One of the strengths of sensory ethnography is that it can generate rich and informative ways of knowing about such things, bringing to the fore “those things that people do not perhaps necessarily think it would be worth mentioning, or those things that tend to be felt or sensed rather than spoken about” (Pink 2015). Some participants made explicit demarcations of the boundaries of intimacy. For example, when Martina was asked to describe what it felt like when the menstrual blood came pouring out she said “*here* it’s beginning to feel a little difficult to talk about it” and gave a little laugh and continued to explain that there was some kind of boundary there and that it felt “more difficult to find words.” Anja noted that even though she talked about periods quite freely with her friends, she had never talked about the specifics of the consistency of menses with them.

The box of menstrual hygiene technologies helped to elicit sensory descriptions. The products enabled the participants to show, point, hold and feel, which seemed to facilitate more talk and more specific details about and around the objects.

In some situations, I made the choice to share my own experiences. When participants seemed bothered by being asked to describe an aspect

of their menstruation, I would exemplify with details of my own, my goal being to make their act of sharing less exposed. Eventually most interviewees eased into these matters, and most participants later in the interview described with glee and fascination aspects they had felt uncomfortable talking about at first.

### *Processing explorative interviews*

All thirteen interviews were recorded digitally, and transcribed, coded, and analyzed, as were the diaries and my fieldnotes. I also kept analytic memos and a research journal. Initial codes were generated from the data (*in vivo* codes) and by clustering the codes into themes. Then began a process of identifying what aspects to explore further. After coding and re-coding, I discussed tentative ideas with colleagues and audiences at public events. Eventually I focused on instances in the data where the interviewees displayed high levels of either positive or negative emotions, or when some of the participants were notably uncomfortable, hesitant, or somehow found it difficult to talk. These instances revolved around describing tactile sensations of what it felt like to menstruate, cleaning and emptying the menstrual cup, and describing the smell or the texture of the menstrual substance. I have often been told, both by supervisors and other colleagues, that one should follow one's gut feeling and pursue lines of inquiry that somehow appear to "burn" or "tingle," even if one does not always understand exactly why or what it is about them that intrigues you. This is genuinely good advice, as it allows you to, as the analysis unfolds, explore lines of inquiry that have not previously been defined. Thus, more on a hunch than with a hypothesis, I decided to explore those themes further.

This choice meant that much of the material generated in the life-history interviews was excluded from analysis. All research, but perhaps more so research that starts with an inductive approach, inevitably entails choices on what empirical materials to put aside. Making those choices is not easy. In fact, I would even say it is quite painful. It feels like you're letting down the people who shared so generously of their time and life if you don't do with the data what (you imagine) they would find reasonable or worthwhile. But the reward is that it provides the researcher with the opportunity to explore things that few have previously considered relevant. I hope I will be able to convey here the idea that things that might seem inconsequential – those "neglected things and devalued doings" (Puig de la Bellacasa 2017) – can in fact entail multitudes of value.

Transcribing, coding and analyzing also entailed discovering the mistakes made during the interviews. I noticed things I misheard or misunderstood and realized how often I interrupted the participants. Particularly in situations when they appeared somewhat bothered by the questions, I too hastily jumped in to ease their discomfort by, for example, telling them about my own experiences. Though I did this with the aim of making the participant more comfortable, this turned out to mostly be an unnecessary distortion. Thereto, the deeper I got into the interviews, the more I wished I'd asked more follow-up questions. That, however, was remedied to some degree by the work that followed.

### *Exploring other kinds of materials*

After having coded the interview data, I began looking at other materials generated throughout the interviews. First, technologies and objects mentioned in the participants' narratives were included as potential objects of analysis. This included physical menstrual hygiene technologies (tampons, pads, cups, etc.), folded paper towels donated by the interviewees, YouTube videos, as well as pictures of disposal instructions and bins in public toilets. At that moment the actual objects were not analyzed, though some of them would be later on in the research process. Instead, I collected, coded, and analyzed websites, texts, commercials and forum discussions associated with the technologies (see Appendix B). These materials were chosen either because they directly (e.g., leaflets, packaging) or indirectly (commercials, product websites) came with the technologies. As the websites associated with the products contained many pages, I selected pages that revolved around practices that were either emotionally or hesitantly discussed by the interviewees, as described above.

I also did a search on menstruation on three common Swedish online discussion forums.<sup>9</sup> This search was carried out to see what kind of materials were made available through the anonymity of the forums. From that search, I selected and analyzed three threads on menstrual cup-cleaning, one on urinating when using a tampon, one that dealt with bidets and washing menstrual genitalia, and one on whether or not one kept a bin in the bathroom. As above, the threads selected for analysis were chosen because they revolved around themes that were emotionally or hesitantly discussed by interviewees.

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9. Search words used (in Swedish) were "menskopp," "tvätta + menskopp," "menskopp + kastrull;" and "papperskorg + mensskydd," "papperskorg + mens," "mens + skräp," "mens + toalett."

As these additional empirical materials were coded and analyzed, the research focus narrowed to what I now describe as concrete “menstrual hygiene practices.” That particular choice of words was resisted until quite late in the process, as “hygiene” was judged to be laden with negative valuation. When I was asked what my research was about, I instead framed it as “staying with the concrete materiality of menses” or about “exploring the facticity of the substance.” While that was certainly also true, when I look back to my materials and memos, I see clearly that the hygiene (dirt) framing was central also back then, no matter how much it was avoided semantically.

As I dug deeper into literature dealing concretely with these practices, I found links to so-called toilet studies. Therein, however marginally, the concrete practices of menstruation were dealt with in ways that seemed to resonate with my tentative findings. It revolved around concrete materialities of menses, technologies used, and the intimate space of the toilet (bathroom). For a rather long time, I therefore positioned the study as being about menstruation in, primarily domestic, bathrooms. Though I did not end up framing the study as such, reading toilet studies opened up that room as an assemblage of involved technologies instead of a scene for menstruality. It also prompted an explorative study visit to the local regional wastewater plant. The focus on toilets (bathrooms) also highlighted the fact that everyday technologies that are often taken to be stable, given and natural things look very different in different parts of the world. Furthermore, there were many suggestions in the literature concerning how things could, very concretely, be otherwise, which propelled the analysis forward.

The full body of empirical material was categorized according to the room in which it took place, and the data on things that took place in bathrooms were analyzed again. Some additional codes were developed that related to objects and technologies in the different rooms (e.g., *toilet seat, sink, floor, shower, bathroom carpet, toilet-brush, bin, stove, dishwasher, microwave oven, pot, washing machine*, etc.). The analysis made clear that many of the more emotional or hesitant interviewee narratives indeed took place in the toilet (bathroom). However, focusing on one room proved unnecessarily limiting. The practices often involved multiple rooms (e.g., changing a pad in the bathroom and disposing of it in the kitchen, staining a sheet in the bedroom and washing it in the laundry room), and some aspects were not clearly spatial at all (e.g., menstrusmell).

This round of analysis also made clear that the available participant narratives did not include that many details about actual menstrual hygiene practices. Where exactly did they change their products? How did they dispose of their disposable menstrual products? How did they justify their choices? I had clearly not asked enough about that. One interviewee (Charlotta) participated in a follow-up interview where I asked her to elaborate on why she thought it so important to clean menstrual stains off toilet (bathroom) floors. Though that generated a rich account, it was clear to me that she found it a little odd that I contacted her about that. I therefore decided to reach out to new participants instead of reconnecting with the old ones. That of course also had the benefit of including a wider range of participants. I also reasoned that new recruitment could attract participants who felt more at ease sharing details about the specific subjects now in focus. Moreover, a new round of generating empirical material could be designed in a way that made it easier for the participants to provide rich accounts.

I also realized that, though I wanted to keep the materiality of menses central to the research, the data I had were quite anemic. I had not included any material that actually involved the real physical substance. I therefore explored how I could obtain more visceral and bloody data. I contemplated whether I could shadow menstruants and observe when they changed their product, but hesitated due to the intimacy of the practice. I asked myself: What would I feel like as researcher doing that? What would I feel if someone did that kind of research with me as a subject? I tried taking pictures of my own menstrual blood to see how that made me feel, and even that was actually rather uncomfortable for me personally. I found myself censoring the pictures, removing aspects that made them too intimate:

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I'm trying to photograph my menses, in case I will ask others to do it. It's inconvenient. I want it to look good, I remove pubic hair from the toilet paper, etc. It is also difficult because my fingers get sticky when changing and one has to fiddle [*rodda*] with washing and drying one's hands many times. (To not get menstrual blood on the phone) Difficult [*jobbigt*]. And then it's frankly a little hard to take the pictures, takes some getting used to. And knowing that I have the pictures in my phone actually also feels a bit awkward. ... And so last time there was so much poop in the toilet, and the toilet was so dirty. So I didn't want to [take any pictures].

Based on my own experiences, I reasoned that a less intrusive approach was preferable from an ethical viewpoint, and I decided instead to employ other ways of generating material that would be equally informative. Considering a suggestion made by one of the interviewees, I decided to employ an anonymous text-based survey as a next step.

## A survey of menstrual practicalities

During the third period of data generation, I conducted a digital survey. The purpose of the survey was to generate more detailed accounts of some menstrual practicalities that had been hesitantly described or avoided in the interviews. The idea was that in writing, protected by the anonymity provided by the survey, participants would be more able to share details that might otherwise feel odd, for some, to talk about. In addition, conducting a survey was an efficient way to generate a great deal of empirical material in a short time, which was especially relevant at that time in my personal life (pregnant, pain, nausea). The survey was designed using the online software Sunet Survey and handled in accordance with The Swedish Research Council guidelines on good research practice (in 2017) and GDPR; it was entitled “Tell me about your menstrual everyday life” and can be found in full in Appendix F. The themes of the survey were *changing* (Q9–16, 53–54), *disposal* (17–29, 51–52), *washing during menses* (30–40), *menstrual smell* (41–47), *cleaning menses* (48–50, 52), *toilet paper and menses* (55–58), *sewerage blockage* (59–60), *cleaning reusables* (61–62), and *storing* (63). Most questions were free-text replies that I planned to analyze qualitatively, just as I had done with the interviews prior.<sup>10</sup> I distributed the survey through the same channels used for the earlier call for interest, as well as to all individuals who had replied to that call. As before, the idea was to reach a subgroup of the population that would likely provide rich accounts when responding to the survey questions. The survey was open from 9 January until 11 April 2019. To my surprise, as many as 445 people responded to the survey.<sup>11</sup> I thought, it appears quite incorrectly, that interest in menstruation had declined since I last made a call for interest. I had actually counted on no more than perhaps 50 respondents. Thus, I suddenly had to understand how to come to grips with a rather large amount of data. Several survey respondents,

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10. Free-text questions were questions number 10–18, 20, 21, 23, 24, 26–35, 38–40, 42–54, and 56–64.

11. At least one of the first seven interviewees also responded to the survey, but I do not know if there were more. Most (300) responded during the first three days.

more insightful than I had been, commented that they felt sorry for me because of how much data the survey would generate.

Most survey respondents were cis-gendered women, but 24 identified as non-binary (also described as “gender non-conforming,” “genderfluid” or “queer”), and one identified as a man. Most were born between the 1970s and the 90s, but there were also several respondents born between the 40s and the 60s or in the 2000s. Almost ten percent of respondents were born outside of Sweden (mainly Europe, but also Africa, South America and Asia). All but 19 of them lived in Sweden at the moment of filling out the survey. Among those residing in Sweden, most lived in or near one of the three largest cities (257). An overview of demographics for the survey respondents can be found in Appendix G.

When it came to more specific matters of menstruation, the majority of the survey respondents had an ongoing menstrual cycle (380). Out of the 61 survey respondents who did not have a currently ongoing menstrual cycle at the moment of answering the survey, 14 were menopausal, 24 were on cycle-stopping birth control, 16 were pregnant or breastfeeding, and 7 had other reasons, among which were having Polycystic Ovarian Syndrome (PCOS), undergoing treatments for endometriosis, or having had a hysterectomy. Most respondents regarded themselves as more open than others about menstruation (186), but there were also those who considered themselves less open than others (12). As many as 39 respondents replied that they would rather not talk openly about menstruation, and 60 replied that they would rather not talk about their own menstrual period (see Figure 1). About half of the respondents reported that they most often used a menstrual cup (227), and as many reported that they used disposable pads (226) and nearly as many (199) used tampons. Many of them commonly used several different kinds of menstrual products (see Table 1).

### *Respondents' comments on the survey questions*

Several respondents remarked at the end of the survey that they thought that the way the questions were formulated was biased toward a specific framing of menstruation. One wrote that it felt like I, the researcher, “took for granted that everyone ought to think a lot about hygiene, paper and such. Menses is menses, there’s not much more to it.” Other respondents wrote that it felt like the questions urged them to describe feelings of shame, fear and disgust regarding hygiene matters. Their critique of the survey is important for at least two reasons.

First, they highlight important issues concerning how the questions were phrased and remind both readers and the researcher to interpret the replies in relation to the questions asked. Examining the questions through the lens of these comments, I saw how certain normativities were built into them, for example, the mere existence of the survey could be said to have positioned menstrual hygiene practices as important. Some questions asked specifically about importance, for example, “what do you consider most important when you ...” (Q16, 39, 48, 53–54, 57, 62, also 11, 40). However, though I did try to achieve neutral wording for most of the questions, some of them were intentionally constructed with a valuation. For example, in Q14, I asked whether the respondent had ever experienced someone “stumbling in on” them (“sprungit in på”) when they were changing menstrual products, wording that took for granted that such an event would have been an unwanted intrusion. In Q38, I asked what they thought was most difficult (“det jobbigaste”) about washing during menses, wording that took for granted that there were difficult things about it. In Q51, I asked whether they had ever left or forgotten a used product that remained visible in a bathroom (toilet), which took for granted that invisibility was the norm. These questions were thus constructed in direct relation to valuations that had emerged in the preceding analysis. In addition, this was also an effect of the survey method. In an interview, one can ask more open questions and thereafter specify based on what the interviewee says. But a survey is less flexible. I tried to remedy this by placing negatively valued questions after neutral ones. For example, I asked seven questions on the smell of menses where the first were neutrally phrased and the later ones more oriented toward dirtiness or negativity (see particularly Q46). However, I wish I had also included questions that to a greater extent positioned ideas of menses as not dirty or polluted. For example: When and how does menstruation smell good? Are there instances when you consider it pleasurable to be dirty? And what is the most fascinating thing about menses? The fact that many participants nevertheless mentioned positive aspects and presented alternative discourses is significant in this light, perhaps more so than if had I constructed a perfectly balanced survey (if there is such a thing). Moreover, any indications of resistance to the wording of the questions were themselves highly valuable and informative.

This brings me to the second reason why those comments are important. The comments are crucial acts of resistance. They show that the notion of menstrual concealment or shame is not necessarily felt, or

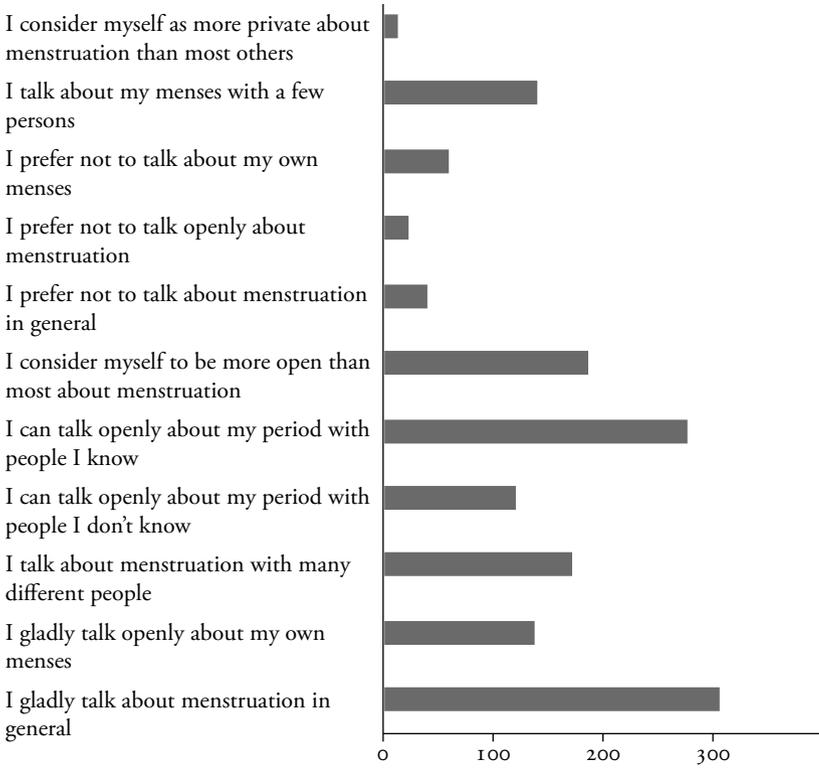


Figure 1. Attitude toward talking about menstruation among survey respondents.

practiced, or otherwise upheld by all menstruants. Everyone does not consider menstruation a “hygiene crisis” or in negative, troublesome terms. Instead, menstruation can be lived with ease, through positive sensory and simple practical experiences.

Other respondents remarked on how I asked about gender and sex in a way that they considered problematic. I asked “What is your biological sex?” And “What do you identify as?” The respondents were given the alternatives “Woman,” “Man,” and “If other, specify.” One remarked that my definitions of “biological sex” were excluding and wrote that it had affected their replies and made them less prone to respond. Another asked what I meant by “biological sex”: did I mean “sex assigned at birth” or “physical parts”? I wish I had spent more time constructing these two questions, as I aimed to be inclusive of trans, non-binary, and

queer menstruants. In future studies I will, as a suggestion, instead ask about “gender assigned at birth,” “physiological sex,” “judicial gender,” as well as “gender identity.”

### *Post-survey interviews*

Five survey respondents volunteered for a follow-up telephone interview after the survey. The interviews were carried out in February 2019. These interviewees were on many demographical accounts similar to the first, but one identified as non-binary (“Michelle”). While I would have preferred to interview them in their homes, phone calls were the only possible option due to my physical afflictions at that time.

I first asked them how they experienced doing the survey, why they wanted to do the interview, about their relationship with their menses, and what kind of menstrual hygiene technologies they used. Then, I asked them to walk around their home, describing practical and sensory details of their everyday menstrual practices in different rooms. I specifically prompted them to talk about the toilet (bathroom), but other rooms were also covered. The general interview guide for these interviews is presented in Appendix H. The method was inspired by Pink (2015), who has walked with her participants as they re-enacted everyday practices in their homes. Their accounts spurred further questions related to a variety of themes, such as menstrual cramps, menstrual sex, menstruation and family members, menstruation in the workplace, experiences of menstrual odor, and memories of difficult menstrual disposal. Four of the interviewees also contributed photographs and videos of menstrually relevant objects, technologies, rooms and practices that they described during the interview (see Appendix B).

As discussed above, a key rationale underlying how this research was carried out was based on the notion that menstruation is often thought of as a private and intimate thing. Looking back at the research process, I see a clear progression in how secretive and intimate the subject seemed, both for myself and for the participants. Whereas I had previously deemed it too intrusive on their intimacy, during these interviews it became evident that I could potentially have generated more observational data. I ended the last five (post-survey) interviews asking, rhetorically, what they would have said if I asked if I could shadow them. Three of the interviewees replied that it would be quite unthinkable, explaining for example that they wouldn’t want to invite even people they have known for decades into the bathroom when they changed products. One of them explored

the idea at some length but arrived at the conclusion that even though she saw the potential in doing it, she would consider it too much of a violation of privacy to have a researcher with her when she changed.

To my surprise, however, two of the interviewees actually said they would be all right with being shadowed into the toilet (bathroom). Something for future research, potentially. I am nevertheless happy that I employed a more careful approach, as that meant a smaller risk of infringing on participants' boundaries of intimacy. By using interviews and texts instead of shadowing, the participants were more "able to control the access of the researcher, and to draw a veil around certain subjects" (Twigg 1999, 382), which was important from an ethical standpoint. The question is also how I would have reacted as a researcher, and how that would have impacted the participants. Not shadowing also likely made available a richer variety of materials than would have been generated had I followed a small group of exceptionally open participants.

### *Analyzing the survey material*

The total amount of material generated by the survey was too great to allow any depth of analysis if all of the material were to be analyzed (there were also time constraints). To make it more manageable, I first compiled and analyzed the quantitative questions using simple frequency tables. To get something of an overview of the free-text answers, I read through and coded the first 30–50 (depending on the amount of text) respondents' replies to all free-text questions. I coded for *practices* (actions that they described), *imperatives* (things that they described as important), *tools* (what technologies or objects they mentioned), *rationales* (the justifications they gave for why they used a certain practice), when they described having had a *change in attitudes*, as well as any references to certain *spatial delimitations* (e.g., in what room a certain practice should be done), as well as any expressed *emotions*. I also conducted software assisted (Atlas.ti) content analysis of selected questions, which made visible the frequencies and varieties of words used. This helped me gain a broad overview of the survey material. A selection of codes and replies were discussed with colleagues at several seminar groups.<sup>12</sup>

Out of all the different themes in the survey, three sets of questions stood out as involving more notable emotional distress for the

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12. I presented empirical material and tentative results at the STS Work in Progress Seminar, as well as the Feminist Seminar at the department and the seminar P6 at Tema T – Technology and Social Change at Linköping University.

respondents, for example, signaled by words such as “shame,” “panic,” “anxiety” and “paranoia.” These included replies that regarded 1) smelling badly of menstruation, 2) cleaning reusables, and 3) accounts concerning forgetting to dispose of a used disposable menstrual product. These themes also resonated with themes that some interviewees had shown hesitation or strong emotions in relation to earlier in the research.

In the analysis process that followed, I selected sets of questions that were either analyzed in full (all 445 respondents’ replies) or, where applicable, analyzed only in subgroups (e.g., all respondents who used a certain technology). I analyzed each respondent’s replies to each set of questions as a whole, as it was important to prevent any loss of context. For this I simply used Excel. Each set of questions was entered on a sheet where I could overview each respondent’s replies to all questions in the set, and code and analyze them together. In several instances, the analysis was assisted by transforming some of the qualitative replies into quantitative variables. For example, in analyzing replies regarding menstr-smell, I categorized free-text replies to Q42 as conveying a certain level of frequency concerning how often they thought about the smell of their menses, and I used these as subgroups that I compared with each other in the analysis.

When coding of the survey material got up to speed in early 2020 (and the Covid-19 pandemic hit Sweden), it became increasingly clear that so much of what I had asked about both in the “menstrual-cycle interviews” at the beginning of the research and in the survey revolved around *the dirtiness* of menses. It quite suddenly struck me that “hygiene practices” was a framing that essentially also meant “dirt practices.” Dirt was at that very moment “in the air.” A group of colleagues at the department had started a workshop series on the theme, and *The Sociological Review* had recently published a special issue on the Sociology of Dirt (Pickering and Wiseman 2019). To my delight, menstruation was central in two of the articles. As if I’d known it all along, dirt emerged an obvious main thread throughout my empirical material. Whereas I had up until then long thought it was crucial that critical menstruation scholars worked to counter and criticize the positioning of menstruation as a matter of hygiene, I realized that there was sociological potential in instead diving into it, exploring whether and how menstruation comes into being as a matter of dirt (pollution) through those everyday “hygiene practices.” Douglas’ theorization of dirt and symbolic pollution thereafter became the main theoretical framework for my analysis.

Moreover, I began working in a more focused manner with the theoretical lens of post-ANT thinkers who have stressed how reality is enacted through the interactions of multiple actors (e.g., Mol 2002). Through that lens, a matter is never, so to speak, alone in the production of meaning, but joined by a multitude of (f)actors. I therefore coded for tools and objects that were mentioned in relation to dirtiness or cleanliness in the survey, and a long list emerged. There were both vast technological infrastructures (such as the sewerage system, heating and water provision), large machines (such as dishwashers, washing machines, and microwave ovens) and smaller mundane technologies (such as toothpicks, toilet paper, and garbage bins). The most frequent and central technologies were menstrual hygiene products such as pads, tampons, and cups.

## Analyzing the role of technologies

The last period of generating empirical material served to more thoroughly involve technological objects as empirical data in the analysis. I chose to focus on two specific menstrual hygiene technologies: the disposable pad and the reusable cup. This was a choice made through engaging with the empirical material. For example, pads and cups were prominent in participants' narratives related to dirt. Moreover, they were common among the participants. A little over half of the survey respondents used cups (51 percent), and about as many used pads (50 percent); see Table 1. Most of the interviewees who used cups at the time of the interview also talked about how they had previously used other products, sometimes in combination with the cup. This is quite unrepresentative of the wider population, however, as cups are used only by a minority. The most commonly used menstrual hygiene technologies in Europe are disposable pads, panty liners and tampons (Klintner 2021). There are also other disposables, such as menstrual sponges and so-called "menstrual discs," as well as reusables such as reusable sponges, diaphragms, cloth tampons, cloth pads, and absorbent underwear. A recent Kantar Sifo (2021) study suggested that most young Swedish menstruants (ages 16–21) use disposable pads and/or tampons. The most commonly used reusable product in that age group seems to be the menstrual cup (*ibid.*). Though reusable alternatives are gaining ground, they remain marginal in the population at large (Klintner 2021).

The two selected technologies together cover what I view as two key dimensions of menstrual hygiene products. The first dimension is

*Table 1. Distribution of menstrual hygiene technology usage among survey respondents*

<i>Q8: What menstrual product do you use most often? You may select several if you use several</i>	<i>Responses</i>	<i>%</i>
Tampons	199	44.8
Disposable pads	226	50.9
Reusable pads	32	7.2
Menstrual cup	227	51.1
Menstrual sponge	3	0.7
Other	23	5.2

*disposability–reusability* and the second one is *internal–external* use. Whereas the pad is disposable, the cup is reusable; the pad is worn externally, while the cup is worn internally (see Figure 2). These dimensions are of particular relevance to dirt and pollution. The first differentiates between how the dirt is eliminated, either through disposal (more absolute) or through cleaning (more continuous). The second dimension differentiates between whether or not the technology transgresses the body/non-body boundary, which Douglas suggested was of great importance to how dirt came into being.

Furthermore, the two technologies contrast and complement each other in terms of novelty: The pad is an older technology, more traditionally used, while the cup is a more novel technology on the mainstream market (though it has existed for about a century, see Figure 17). Together, the pad and the cup stand as illustrative cases that cover a great deal of relevant ground.

Giving primacy to these two of course meant that I chose to exclude other technologies. Tampons, specifically, are frequently used in the wider population as well as by the participants in this study and could have been chosen for focused analysis.<sup>13</sup> Through they were not processed through the analytical act of de-scription, they – as well as many other technologies – still occur in the analyzed data. Moreover, the data on pads and cups cover a wide range of ways in which other menstrual hygiene technologies also enact menstruation as dirt. Like disposable

13. In the Kantar Sifo study (2021), 46 percent of their respondents used tampons. About 45 percent of this study’s participants often used a tampon.

	<i>Disposable</i>	<i>Reusable</i>
<i>External</i>	Disposable pads Disposable pantliners Disposable menstrual underwear	Cloth pads Cloth pantliners Reusable menstrual underwear
<i>Internal</i>	Disposable tampons Disposable sponges Disposable “menstrual discs” (similar to diaphragm)	Menstrual cup Reusable sponges Cloth tampons Diaphragm

Figure 2. Dimensions of menstrual technologies.

pads, disposable tampons and sponges absorb the substance and are disposed of after use. Like disposable pads, reusable pads make menstruation visible in an absorbed form external to the vagina. Like cups, tampons and sponges are worn internally. In a future study, it might be rewarding to also explore the dissimilarities between, for example, interactions with tampons compared to interactions with cups and pads. Unlike the pad, the tampon masks menstruation until it is taken out or leaks; unlike the cup the tampon is rendered waste as soon as it has come out of one’s body; unlike the pad the tampon is not as easily rolled in on itself as a means of hiding it in disposal. It could be rewarding to explore the tampon further in light of these differences.

### *De-descriptions*

To include these two technologies in the analysis in a better way, I utilized a method that has been called *de-description*. Madeleine Akrich proposed the term for labeling the analytic act of teasing out the *inscriptions* of the technology (Akrich 1992; Akrich and Latour 1992). It has been described as a way to elicit “talk” from technologies, almost like interviewing them; exploring what they, so to speak, “want,” how they (attempt to) govern action, how they partake in defining certain aspects around or of their users. De-description is thus the reverse movement of the designer’s inscription (Akrich and Latour 1992).

For the de-description to work, I chose two specific brands. Though most pads and cups have their respective commonalities, there are a multitude of specificities that make them different from each other (e.g., size,

color, material, marketing), which means they are differently scripted. I selected two products that are used widely in Sweden. These brands were also mentioned by some of the interviewees, though I did not generally ask about what brands they used. The selected pad was a Libresse so-called “normal sized” pad (see Figures 3, 4, 5) produced by the Swedish company Essity.<sup>14</sup> The selected cup was made by Lunette (see Figure 18), a Finnish brand whose cups were the first sold in larger Swedish pharmacies and is one of the more common ones on the growing Swedish cup market.<sup>15</sup>

I should disclose my personal dealings with these two companies. I have used both brands at some points in my life, and I have also had some professional interactions with the companies prior to the research. My own Lunette cup was given to me by the company free of charge years before I got accepted to the PhD program. Furthermore, Lunette has sponsored several menstrual activist events that I have organized and participated in; they have donated cups, some merchandise products, and once covered some minor costs for an art installation. I have once had coffee with the founder of the company, and they have highlighted me as a forerunner in menstrual activism in their social media. I have twice been welcomed by Essity (Libresse) to see some of their more backstage work related to menstruation, e.g., archival material. Furthermore, I personally quite like using both of these brands. There were benefits in analyzing products that in different ways were familiar to me. Not only did the personal experience of using the products inform the research, because it for example provided some cues as to what to look for in the material. I also view engaging in a critical examination of products that I had a certain closeness to as an act of liberation from them – a detachment that freed up space for critical inquiry. For example, I have personally liked both Lunette’s and Libresse’s progressive advertisements, as well as the way they are designed compared to other products. Had I analyzed products of brands that I do not use, I would likely have remained biased toward these features of Libresse and Lunette. By analyzing products I preferred, I was able to explore the general technologies in a less biased, more critical way.

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14. Libresse pads are sold globally under other brand names, for example, Bodyform (UK), Saba (Mexico, Central America), Nana (France), Nuvenia (Italy), Libra (Australia and New Zealand) and Donnasept (Chile).

15. According to my own records the pharmacy Apotek Hjärtat began selling the Lunette cup in Sweden in 2013.

Apart from the physical technological objects, participant narratives about using the technologies were the most important empirical material used in the process of de-description. Those narratives did not relate to the specific products de-scribed, but to pad and cup usage generally. Thus, the analysis moved between the specifics of one brand to general aspects of the technology. I also looked at communication that surrounded the technologies, such as commercials, packages, and company websites. Primarily, these materials had been collected earlier in the research process, but more were added (see Appendix B). In the de-description of pads, I also included material generated from a study visit to a wastewater plant (November 2017). This breadth of empirical sources allowed me to elicit both so-called “physical scripts” more directly communicated by the technological object and “socio-technical scripts” of the products’ symbolic and emotional meanings (Hubak 1996).

I focused the analytic act of de-description on how the technologies took part in enactments of menstruation as dirty or polluted. To elicit information about that, *dirt* emerged not only as empirical data, but also as a concrete tool in the analysis. According to Akrich and Latour, de-description demands either a real or an imagined “crisis” – “a failure that reveals the inner working[s]” of the technology (1992, 260). I based my de-description on the premise that the hygiene technologies were (to some extent) fundamentally designed (scripted) to achieve cleanliness or to mask menstruation, as explored by Vostral (2008). I posited that whenever a participant told of a situation when the products had failed to achieve cleanliness or conceal menstruation, the technology was in “crisis” and its “inner workings” were revealed.

I also explored explicit statements of imperatives regarding cleanliness and hygiene. Each of them was contrasted with an imagined crisis. For example, on the pad package, the texts and illustrations positioned *prevention of leakage* as an imperative function of the product. I contrasted that with the logical fictive crisis of *leakage* (see Table 2).

De-description proved a highly valuable method to elicit tacit details of the interactions between the menstruant and the technology. It made valuations and ideas that the participants continuously related to implicitly in their narratives into explicit ones, thus propelling the analysis forward. It was as if one had gotten hold of a more complete picture. Moreover, the method of de-description also highlighted implicit ideals (scripts) that were not prevalent in the participant narratives, but still of considerable value as pieces of the puzzle.

*Table 2. De-scribing through an imagined crisis, examples*

<i>Imperative</i>	<i>Crisis</i>
Concealing menstruation	Exposing/showing menstruation
Do not leak	Leakage
Do not smell of menses	Reekage
Dispose discretely	Non-discrete disposal
No visible dirt on reusable	Visibly dirty reusable
Non-messy change	Messy change

## The final analysis

Above, I have presented details from analytical work done in direct relation to three specific kinds of empirical materials, generated at different phases of the research. Considerable analytical work has, however, been carried out after that. Here I present how I finally operationalized theoretical tools in the analysis, and thereafter briefly describe the analytical act of writing up the final results.

### *Analyzing for dirt and pollution*

As the theoretical focus grew stronger, I returned to the whole body of material and began to code it using Douglas' theories on dirt and pollution. To identify which materials were relevant to the analysis, I employed three sets of questions based on theoretical discussions of dirt and pollution. First, building from Douglas' definition of dirt, I asked: When and how is menstruation/the menstruant defined as explicitly dirty or otherwise out of place? What different kinds of dirt are visible in the material? And: When is it positioned as particularly important "to put menses back in place," i.e., to clean or wash away menses? Dirtiness and cleanliness emerged as two sides of the same coin.

Second, Douglas' argument includes the notion that there are certain emotions that can be thought of as typical reactions to symbolic pollution. Critical menstruation scholars have highlighted specifically disgust, fear or worry, and shame. I considered these emotions indicative of what, and who, was rendered polluted in the accounts. I asked: How do the participants feel about menstrual matters? When do they describe something as disgusting, being called disgusting, or feeling disgusted?

When do they describe feeling shame, worrying about shame, or being told to feel shame? When and how are they worried or show fear in relation to something that is defined as dirty? And In what ways do the technologies and their companies instruct the users on how they should feel? As negative emotions are not automatic responses to all dirt (see, e.g., Lagerspetz 2018; Ambjörnsson 2018), I also analyzed narratives that were more neutral or positive regarding aspects that elsewhere in the data were tied to pollution.

Third, Douglas suggested that contemporary definitions of dirt are nearly always linked to ideas of dangerous germs. Therefore, any mentioning of germs or risk of disease was also coded as a potential enactment of dirt or pollution. I asked: When is menstrual dirt positioned as related to risks of microbial dangerous pathogens?

### *Writing the analysis*

Now to a last comment on the analysis. When writing up the results, and when presenting and discussing them with others, the analytical work is almost more intense than during any other part of the research. In addition, the more you manage to get your interpretations down on paper, the more helpful feedback you will receive. Thus, the final analysis progressed through iteratively writing, reading, and receiving (invaluable) feedback from several different research collectives and individuals.<sup>16</sup>

## Reflecting on the total sample

After a chronological presentation of how the research progressed, I will finally reflect on the overall research design. In this section I discuss the total sample. As part of the abductive research design, I employed a mix of sampling strategies. Though it varied throughout the research process, I generally employed what could be called a purposive sampling strategy aimed at generating *information rich* cases for in-depth study (Patton 1990). The two calls for interest were disseminated in forums that reached people I judged likely to share more freely than most others on the theme. Three wide criteria were set for the participants: that

16. One research collective of particular relevance included the STS seminar at the Department of Sociology and Work Science, University of Gothenburg, and an international workshop series with junior critical menstruation scholars working in Scandinavia. My main supervisors (Cathrin Wasshede and Linda Soneryd), my final seminar reviewers (Kerstin Sandell and Kerstin Jacobsson) as well as my editor (Boel Berner) were also all instrumental.

they understood Swedish, that they were over 18 years old, and that they either had personal experiences of having menstruated or of having been expected to menstruate.

Though the initial ambition was to have a relatively small number of participants (around 20), the final number of participants amounted to between 434 and 445.<sup>17</sup> As a group the participants were largely quite homogeneous; including mostly cis-gender women, ethnic Swedes, residing in or close to one of the larger Swedish cities, born in the 1980s or 90s, with what could be called a normal or non-pathological menstrual cycle (though there were exceptions). In these respects, they likely resemble the majority of young adult Swedish menstruants. However, the participants differed from the majority in key respects. As was expected, a large proportion of the participants expressed an attitude toward menstruation that was remarkably non-secretive. Many of the interviewees could even be described as menstrual activists, positioning themselves as someone who tried to change people's negative attitudes toward menstruation. Many were also engaged in feminist politics in other ways, for example several interviewees were or had been active in different kinds of feminist political work. Two of the interviewees, in contrast, struck me as distinctly apolitical in how they related to menstruation. A small proportion of the survey respondents considered themselves less open than others regarding menstruation (12). Still, not even the more open participants were completely unembarrassed, as discussed above. In addition, the participants differed significantly from most Swedes in that more than half of them used menstrual cups.

Though characterized by homogeneity, the sample does include a wide range of menstrual experiences. Moreover, the large number of survey respondents provided significant variation, though represented by comparatively few participants. Moreover, the material from anonymous online forums contrasted with the participants' openness, as many of those discussants were distinctly private and secretive about their menstruation. Still, the analyzed sample is not to be considered representative of most menstruating young adult Swedes. Instead, their accounts should be read as indicative of the ways in which menstruation can, in certain situations, come into being as dirty and polluted. In this way, the analysis sheds light on unexplored phenomena, showcases examples, and suggests possibilities for understanding how menstrual dirt comes into being.

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17. As the survey was anonymous, I cannot rule out overlaps.

*Table 3. Demographics of interview participants*

<i>Pseudonym</i>	<i>Decade born</i>	<i>Gender</i>	<i>Place of residence</i>	<i>Place born</i>	<i>Interviews participating with</i>
Aurora	1990s	Woman	Gothenburg	Sweden	Life-story
Martina	1960s	Woman	Gothenburg region	Sweden	Life-story, cycle
Agnes	1990s	Woman	Gothenburg	Sweden	Life-story, cycle
Anja	1980s	Woman	Gothenburg	Sweden	Life-story, cycle
Daniella	1980s	Woman	Europe (not Scandinavia)	Europe (not Scandinavia)	Life-story, cycle
Charlotta	1990s	Woman	Gothenburg	Sweden	Life-story, cycle, follow-up
Petra	1980s	Woman	Stockholm	Sweden	Life-story, cycle (comb.)
Michelle	1990s	Non-binary	One of Sweden's 10 largest cities	Europe (not Scandinavia)	Post-survey interview
Karin	1980s	Woman	Malmö	Sweden	Post-survey interview
Maja	1980s	Woman	Capital of other Scan. country	Scandinavia	Post-survey interview
Nora	1970s	Woman	Stockholm	Unknown	Post-survey interview
Sara	1980s	Woman	Malmö region	Unknown	Post-survey interview

## Reflecting on cross-lingual research

Now to some remarks on the cross-lingual nature of the research. As a researcher native to Sweden, working in a Swedish-speaking country with Swedish-speaking participants, but active in a primarily English-speaking field, one is given the near impossible task of translating. Translating is much more than just finding the suitable equivalent for words, which can surely be difficult as well. Instead, translating is about translating meaning between different cultures, and trying not to lose too much in the process. One must continually ask oneself whether or not the words

chosen as the translations actually really mean the same thing as the original words. For example, I remain undecided as to whether “oroa sig” in Swedish actually means the same as “worrying” in English, even though the dictionary says it does. I also wonder whether native speaker of English relate in the same way to the word “slime” as Swedes do. The Swedish word “slajm” or “slime” is borrowed from the English and is primarily used to describe the semifluid neon-colored (and ridiculously expensive) slimy substance kids play with. In English, however, slime is also used as a descriptor of moist slippery substances on grass or stones, synonymously with ooze, sludge, muck, mud and mucus. *Menstru slime* may therefore have positive playful connotations in a Swedish context, and more negative connotations in an English one. Conversely, “dirt” may have more positive connotations in English, as it is synonymous with “earth” or “ground,” while the Swedish equivalent “smuts” more distinctly concerns that which is not clean. I’ve tried other words, such as filth or soil, but eventually settled on dirt, as I found more and more scholars who did so as well (Lagerspetz 2018; Pickering and Wiseman 2019).

Overall, I have given some primacy to Swedish. I have tried to make the Swedish language visible in the analysis. In the translations, I have used words closer to what Swedes use instead of the “more correct” English equivalent. Swedish is somewhat “franker” or “cruder” than American English. Swedes say “mens” (short version of menstruation) instead of “period,” and “toilet” instead of “bathroom.” Such frankness in everyday talk is especially important to hold on to as the whole project is about making visible things that are often hidden behind euphemisms. Moreover, those words potentially tell us important things about how Swedes relate to the phenomena in question. Therefore, for example, the Swedish “mens” is translated to “menses” or “menstruation” rather than period, and “toalett” is often translated to “toilet” rather than bathroom. In some cases, I have also put the word toilet in parentheses just after the word bathroom to remind the reader of this. One must take care to not mix too much of (the vastly varied) culture of the language one translates to into the culture one translates from. Also, as “menstruation” might seem oddly medical in an English setting, and “toilet” oddly crude, I hope that they function to signal to the reader that this is not an English setting and that translating is a precarious act. All quotes from the interviews, forums and surveys were coded, analyzed and brought into the text prior to translation, and it was only late in the finalization of the text that they were translated. This was done to stay close to what the

participants actually said, as well as to the specificities of the language. Because the Swedish context is under-researched in comparison with the Anglo-American one, this is particularly important.

Another particular thing about Swedish compared to English is the ease with which the Swedish language allows one to create new words by compounding words. Thus, Swedes can talk of “menssmuts” instead of “menstrual dirt” (or “mens smuts”), “menslukt” instead of “the smell of menstruation” and “mensblod” instead of “menstrual blood.” Also, with just a bit of creativity, one can easily construct the word “vattenblod-droppar” (“waterblooddrops”), which instantly becomes understandable as *one* concept: a specific kind of drop that consists of both blood and water. In the same way, when one interviewee described their menstrual substance as “slajm” (“slimy”), then the concept menstruslime (“mens-slajm”) rather automatically come into being. It becomes thinkable. And perhaps even more experienceable. I have utilized this as means to – in cooperation with the participants – expand on and nuance our common menstrual vocabulary.

## 5. Wearing pads – stains and embodied dirt

The disposable menstrual pad (henceforth: the pad) is a key menstrual hygiene technology. It consists of cotton or cellulose and other absorbent materials and is worn externally in one's underwear. It is one of the most commonly used menstrual hygiene technologies, right at the top along with disposable tampons (Kantar Sifo 2021; Klintner 2021). Before the marketization of affordable industrially produced disposable pads in the early 20<sup>th</sup> century, reusable knitted or sewn cloth varieties were common.<sup>18</sup> Introduction of the disposable pad has been described as a pivotal point in the history of menstruation (Malmberg 1991; Vostral 2008; Freidenfelds 2009).

In this chapter, I explore how menstruation is made into a matter of dirt and pollution in pad usage. This chapter focuses on when the pad is worn, and the following chapter continues chronologically by dealing with its disposal. The two chapters cover different kinds of dirt. The dirt that comes into being during usage is primarily an *embodied* kind appearing on or in close proximity to the body, whereas the dirtiness of the used menstrual product is of an *objectual* kind, wherein the object itself emerges as dirty. Throughout this and the following chapter, I use Akrich's (1992) method of de-scription as means to elicit information about the pad's involvement. I employ the technique of putting the technology through a "crisis" or "failure" by exploring when the product as well as its users get dirty. In this chapter, I first present an overarching analysis of the product, and then focus on three sensory experiences of dirtiness and pollution. Thereafter, I dive into what people do to keep from getting dirty, or to eliminate the dirtiness that emerges in pad usage. I analyze the technological object and narratives of menstruants who have used them, and look at how the pad contributes to definitions of menstruation as polluted as well as to material productions of dirt, discussing this in relation to Douglas' theorization of dirt.

18. Reusable pads make up a small but notable part of menstrual product usage in Sweden today.

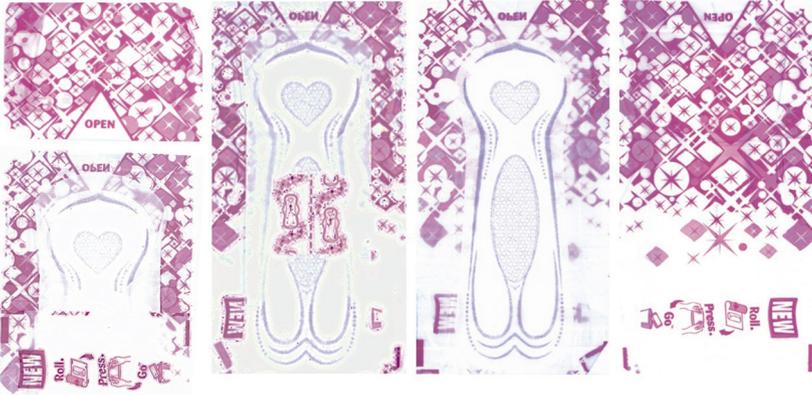


Figure 3. Photocopy of pad as packaged in individual wrapper. From left to right: first unfold, second unfold, without adhesive strip, backside.



Figure 4. Libresse pad package. From left to right: front side of package, backside of package.



Figure 5. Photo of the analyzed pad. All photographs by the author unless otherwise stated.

## De-scribing the pad, getting started

The particular object analyzed here was a Libresse pad produced by the company Essity (formerly SCA). It was purchased in Gothenburg, Sweden, in 2015 at a local convenience store. It was placed on the “intimate shelf” beside other products of the same brand (pantliners and pads with other levels of absorbency), other brands (Always by Procter & Gamble), as well as incontinence pads of the brand TENA (Essity). The placement positioned the pad as a private matter of intimate or personal hygiene related to bodily leakages, such as menstruation, urinal incontinence and vaginal discharge. Regarding color, this product stood out with its vivid pink package, compared to the purples, blues, greens and whites of many of the other products. The package contained fourteen pads that were each individually wrapped in plastic, so-called “single-packs” with white and pink graphics (Figure 3).<sup>19</sup> The pads were shaped as slightly concave ovals, with so-called “wings” on each side, measuring 24 cm in length, 7 cm in breadth (not counting the wings) and a couple of millimeters in thickness. The pad had a bleached white color with bright pastel purple markings (see Figure 5). According to available information from Libresse, the surface of the pads was made out of a plastic “fiber material” followed by a so-called “transport surface” and an “absorbent core” made out of “wood-pulp and superabsorbent materials.” The bottom was covered by a plastic surface.<sup>20</sup> The pad had visible adhesive strips on its backside as well as on the “wings,” which were covered by a white plastic “strip” on which illustrations indicated the intended placement of the pad. The word “menstruation” was not mentioned on the package, but the Libresse brand is strongly associated with menstruation in Sweden.

The product was quite explicitly marketed toward women or girls, signaled if nothing else by its stereotypically girly pink colors as well as the pastel purple heart on the pad. One could easily deduce that the product was inscribed with a cis-gender feminine young female as its ideal or hypothesized user, conceptualized as the “gender script” of the product (Ellen van Oost in Oudshoorn and Pinch 2003). Other details of the hypothesized user were communicated by the pad in several ways. On the package, four blue drops beside two pink ones and the words “ultra

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19. They were called so on an Essity website, <https://www.bodyform.co.uk/ingredients/>, downloaded 11 November 2021.

20. As above.

thin” and “normal” indicated an inscribed ideal user with a certain (“normal”) amount of menstrual flow, i.e., a flow of up to two thirds of an imagined maximum. Using Akrich’s method of subjecting the pad to an imagined crisis (Akrich and Latour 1992), one can imagine a user with a heavy menstruation the pad could not contain, producing leaks, stains, and making a mess (i.e., dirt). The word “normal” also implies that this product does not only script a standard user of this particular pad, but also – to some extent – delineates a standard normative menstruant: one who bleeds in a “normal” way. To bleed more than this pad could handle is thus explicitly constructed as *abnormal*. The absorbent functions of the pad can also be interpreted as carrying an inscription of a standard menstrual flow, as it contains a certain amount and absorbs at a certain pace. Moreover, the pad would not function if its user did not wear a certain type of underwear. The pad also communicated a vision of a user who continuously has a certain amount of money to pay for it, who is active in a situation that considers disposability a positive, and who has a certain waste-disposal system. In short, the world envisioned by the designers and inscribed into the pad is a global north, suitably exemplified by Sweden. If the pad is placed in contexts where people do not have underwear similar to the kind worn by “typical Swedes,” it is not usable. Similarly, in contexts where garbage is dealt with more locally than in Sweden (e.g., through burning or composting close to home), the products’ plastic materials are potentially problematic.<sup>21</sup>

Critical menstruation scholars have argued that, on a general level, terms such as “sanitary napkin” or “hygiene products” suggest that menstruation is in effect *unsanitary* and *unhygienic* (Kissling 2006; Vostral 2008; Quint 2019; Bobel et al. 2020). Similarly, the commonly used term “menstrual protection” (Swedish: “mensskydd”) suggests that there is a need for protection and control (see also Bobel 2019). The brand name “Libresse,” through a similar logic, suggests that the pad provides freedom (Latin: *libra*) from some kind of burden or hindrance. When looking for enactments of dirt, the pad’s brand name is readable as a reference to freedom from the many hygienic difficulties delineated by the symbols, texts and illustrations on the package (see Figure 4).

Through language, imagery and its physical qualities, the pad communicated that two different dirts are central to its function: leakage

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21. There are several examples of smaller menstrual pad producers that produce pads made of biodegradable materials for people with such waste-disposal systems. See, for example, about ZanaAfrica in a World Bank feature story (World Bank 2021).

(and by extension stains) and waste. These were both delineated through various related, though distinct, imperatives of cleanliness, which stipulated that the user should/ought to/must behave and feel in a certain way regarding these “dirty” matters.

## Leakages, stains and superabsorbents

The Libresse pad very explicitly conveyed that leakage was a central danger that it aimed to eliminate or remedy. This positioned the prevention of leakages and stains as a central function of the product. On the back of the pad’s package, under a yellow flag stating “triple protection” in pink capital letters, an illustration of a pad and the words “barrier,” “absorption core,” and “anti-leak walls” (Figure 4) underlined the importance of not leaking and positioned leakage as a potentially devastating hygiene crisis that demanded quite heavy equipment. Absorption of fluids and prevention of leakage was communicated by Libresse as a key function of the product, and leakages as central dirt. Furthermore, Libresse stated on one of their webpages that the product’s combination of plastics, pulp-based material, and “superabsorbents” served the purposes of “absorb[ing]” and “stor[ing]” “liquids” and “prevent[ing] leakage.”<sup>22</sup> The pads’ color communicated clearly when the product gets dirty; menstrual substance is instantly visible against the bleached white. Moreover, the purple markings delineated dirtiness by indicating the boundaries of the products’ “defenses,” signaling that blood outside of the so-called inner “core” area was more likely to leak than the blood within it. These inscriptions are simultaneously socio-technical and physical (see Hubak 1996), made up of both semantics (such as the purple markings) and physical qualities (such as a certain absorbent function at a certain place).

The inscriptions tell the user that the prevention of leakages is a task that should be considered important and serious. The drastic words used when describing the pad’s absorbent qualities communicate that users ought to consider leaking something quite dangerous and the task of preventing leaks a difficult one. In addition, the words “secure fit” on the package tell users they ought to be concerned that an incorrect “fit” would not be “secure.” This also entails inscriptions of emotions, as the pad-user is expected to feel a certain way about their menses, consider not leaking important and potentially also have a certain level of fear,

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22. <https://www.libresse.se/ingredients/>, downloaded 23 October 2020.

worry or shame concerning the risk of leakages. Vostral (2008) maintained that menstrual hygiene technologies are inscribed with *technological politics of passing*. According to Vostral, the pad's instructions as well as the pad's physical functions of absorption reinforce our culture's androcentric ideals, which position the menstruating body as abnormal and shameful. According to Douglas, notions of danger are central to pollution beliefs. The pad's delineations of leakage as dangerous position leaks (and stains) as a polluted form of menstrual dirt.

I interpret the focus on leakages as implicitly referring to visible stains on one's clothes. Stains have long been referenced in menstrual product ads and positioned as a key risk of using other ("lesser") products than the one being marketed (e.g., Przybylo and Fahs 2020; Erchull 2013). However, the commercial for this specific pad did not contain any such imagery.<sup>23</sup> In critical menstruation scholarship, the stain is one of the more analyzed menstrual dirt. It has been explored in research tying it to embarrassing and stigmatizing experiences (see, e.g., Laws 1990; Malmberg 1991; Koutroulis 2001; Freidenfelds 2009; Chrisler 2011; Johnston-Robledo and Chrisler 2013; Lee and Sasser-Coen 2015; Quint 2019), and many menstrual artists and activists have played with the stain and used it to provoke (Bobel 2010; Persdotter 2013; Fallah 2014; Quint 2019). Moreover, several studies have pointed out that young menstruants find staining a particularly dangerous risk of menstruating. In one study, 75 percent of the young women interviewed were afraid of leaking (Lee and Sasser-Coen 1996; see also Schmitt et al. 2021). Another study showed that stains are a particular problem for menstruants with heavy menstrual bleeding (Li et al. 2020).

In contrast, menstrual stains were rather infrequently mentioned in the first interviews conducted as part of this research, causing me not to ask specific questions about staining in the survey that followed. Some survey respondents, however, remarked that they were surprised that I had not asked questions about stains, thinking they were an important part of everyday menstrual life. When stains and leakages were mentioned in the participant narratives, they were often positioned as an aspect of the past, as something they used to fear and worry about when they were younger, describing it as a kind of menstrual cliché of one's anxious puberty. Aurora, for example, said that in junior high school

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23. The commercial for this pad instead focused on the other prevalent form of dirt: its waste, which will be discussed further in the next chapter.

(*högstadiet*) visibly staining one's trousers had been considered "the worst nightmare" imaginable and "apparently the worst thing that could happen" and "incredibly shameful." She said that she used to change "very very often" to avoid stains. Michelle similarly stated that a visible stain would have been embarrassing. Nora described being "constantly afraid" of bleeding through when she was younger. She remembered once going to a concert wearing so many pads that she couldn't walk properly, just to make sure she wouldn't leak. Nora's and Aurora's depictions mirror and act out the urgency and danger conveyed by Libresse's many references to protection, barriers and security.

In these accounts, the stain is clearly defined as a pollutant in Douglas' terms; it is that which "does not fit" (2002, xvii), that is "matter out of place," that disturbs and upsets a given ideal of menstrual concealment (see, e.g., Vostral 2008; Wood 2020). The stain is charged with certain pollution behaviors of monitoring and surrounded by so-called "pollution dangers" (Douglas 2002, 162, 166). I interpret Aurora's and Nora's worry and embarrassment about having others see the stain as denoting pollution dangers, and the practical measures of frequently changing one's product as pollution behaviors, like Aurora said she had, or wearing multiple products at once, like Nora did at the concert.

### *Stains are more than social*

According to Douglas, menstruation – as other bodily substances – is positioned as a pollutant partly because it traverses vulnerable margins of the body. In this way, she claimed, the substance threatens distinctions of inside–outside, object–subject, body–non-body. In the participants' narratives as well as the pad's inscriptions, the menstrual substance did not emerge as a dangerous pollutant when it transgressed the body's boundaries *per se*, but did so when it transgressed the boundaries of the clothes worn on the body. Specifically, it was the risk of having the menstrual substance *seen by another* that was the concrete danger of this pollution, not the seepage of blood from the vagina. These narratives enact menstruation as a threatening pollutant, not in relation to actual bodily boundaries, but (also) to a wider system of ideas that – among other things – dictate the visibility of menstruation.

The stain emerges in the narratives explored above as a distinctly social and visual kind of dirt. However, some participants also described stains and leaks as being dirty in less social ways. Petra, who took cycle-stopping contraceptives and very rarely had a menstrual period, said

that on occasions when she did bleed, what bothered her was primarily staining the bed when she slept, as she usually wore a pad at night and a tampon during the day.

PETRA: It's as if I'm menstruating like almost for the first time, but I – I'm still always like "God. Yes. Right. Now you have to sleep! And what if you leak [*blöder igenom*]!?" And it's a bit like, since I don't have this experience constantly it becomes a bit like this "Oh! How do you do this then?" ... [laughing] [When] I'm going to sleep, then I cannot lie in any way, but I have to lie in a certain way, when I have the heaviest flow ... I think I have to be aware of [*ha koll på*], like of how I lie and how it *could* leak.

The stains Petra discussed would not be seen by anyone else except her boyfriend, and she said he wouldn't care. She wanted to avoid stains not because they were socially embarrassing, but because they were practically cumbersome. Aurora similarly positioned the stains as problematic for more than social reasons. Though there had not been any actual "embarrassing situations" when anyone had seen her stains, she had still been bothered by them because they "smelled" and "stuck in the clothes," discolored her underwear, and made her feel "a little unfresh." She said that it was cumbersome that she "had to *wash* everything," change underwear often and "keep showering." Aurora positioned her own avoidance and dislike of the stain as not being about shame or visibility to others, but about other things such as having to wash one's clothes, not wanting to smell badly, and her underwear becoming irreparably "ugly" due to stains that wouldn't wash out. I interpret this partly as a kind of resistance of the cliché of the embarrassing menstrual stain. However, she still felt that taking care of the leakage was an imperative. In contrast to the objectual nature of the visible stain on one's trousers, Aurora's depiction positioned stains and leakages as very concretely part of her menstrual embodiment, making her reek and forcing her to shower. Aurora's depiction also highlighted the cumbersome nature of stains; that it takes work to get them off of fabrics and to wash one's body. Aurora's account should be considered in relation to her relatively heavy menstrual bleeding. Michelle, who had a lighter flow, described that they didn't do much "except wearing a pad" to avoid or manage stains, as they did not have such "large amounts."<sup>24</sup>

Another participant who had stopped menstruating by using birth control pills wrote that she thought it was "nice" to be able to avoid

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24. The participant identified as non-binary, hence I use the pronoun them/they.

her heavy flows, as they caused her to “feel anxious that it would leak through my clothes” and that it was “difficult and sticky” (*krångligt och kladdigt*) when she changed. She argued that “it is a liberation to not have to menstruate” even though she saw it as “important and as an enriching experience.” This example highlights how menstrual dirt sometimes comes into being in cumbersome, labor-intensive ways, so uncomfortable that it can even be an argument for choosing to stop menstruating. This shows that there are negative effects of dirt also in non-social, intra-subjective experiences, such as being practically difficult and physically uncomfortable. This contrasts with Douglas’ distinctly social theorization of dirt and pollution. In the examples presented here, menstrual dirtiness is not only about inter-personal relations within a social situation, but also about physical discomforts and the laborious practices involved.

## Sticky pubes, and dried in clots of blood

Continuing the focus on embodied sensory experience I will now focus on the tactile dirtiness of pad usage. Tactile dirtiness is dirt felt by the sense of touch, on and through the skin. The absorbent qualities of the pad are linked to touch. Libresse stated on one of their webpages that their pads were designed to “kee[p] you dry and comfortable by absorbing the liquid,” which demonstrates that they took tactile dirtiness into consideration when designing their products.<sup>25</sup> In the company’s description, the “dry”-ness of the pad was positioned as an ideal sensory experience, positioning a wetter pad as unwanted and uncomfortable, maybe even dirtier. The interviewee Karin talked about the tactile dirtiness of using a pad in comparison with the experience of using a menstrual cup:

JOSEFIN: You mentioned that when you started using the cup ... you told me that you got a very different relation ... why did you get a different relation, and how, how was it different?

KARIN: Yes ... well, partly it was different because it got simpler and less sticky [*kladdigt*]. I’m thinking about how when I showered before, that thing when it flowed out of me the whole time, I never used a tampon. It was like a constant flow of blood, which like sticks together [*kladdar ihop*] and dries in and [I] had to shower every day just to like, keep it clean. And also that it amounted to so much *trash*, and if I’d forgotten to bring pads to school I’d have to go and buy pads. It was so much more of a project.

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25. <https://www.libresse.se/ingredients/>, downloaded 23 October 2020.

Karin said that menstruating when using a cup was “easier” and “less sticky,” less “runny” and less of “a project,” which positioned using pads as a sticky, runny, laborious, and costly experience. She felt that pads produced a tactilely dirtier menstrual experience than other menstrual technologies did. Her expressed need to “keep it clean” can be read as an ambition to live up to cultural ideals of cleanliness and order (Douglas 2002; Shove 2003; Smith 2008). However, in this situation, I read the “need” to keep clean as something more concretely physical, as she emphasized the “constant flow” and the fact that the blood “stuck together and dried in” as a bothersome and uncomfortable physical experience rather than relating to social ideals of cleanliness. Later in the interview, Karin explained that it was a problem when the substance dried, particularly when it made lumps in her pubes, which were “difficult” and “a pain in the ass” (*skitjobbigt*) to get off, felt uncomfortable, “unfresh,” and were painful and chafed. Several other participants reported that the worst thing about washing oneself during menses was that the blood “merged with” or “stuck” to one’s pubes. Karin described in detail the work it took, that it was “difficult,” that she had to “flush water on it,” “comb it with her fingers,” “pull it away” or “soften” and “somehow soak” the blood lumps in order to “get them out” of her pubes. She also expressed annoyance about having to shower more often than otherwise.

In the material presented above, pads emerged as producing an embodied tactile dirtiness that involved physical discomfort in the form of stickiness, soreness and pain as well as the unpleasurable experience of being soiled with blood (*nedblodad*) and not feeling “fresh.” However, discomfort itself is not dirt. Rather, the blood lumps in pubes emerged as dirt in Karin’s narrative when they were described as “unfresh” and because Karin used a hygiene practice (showering) to remove them. At the same time, discomfort is an important part of being dirty, and it partially defies Douglas’ famous definition of dirt as “matter out of place.” Rather, dirt is *also* matter that our sensory nervous system reacts to. Here, it is matter that itches, chafes, and aches (Lagerspetz 2018). This dirtiness is very clearly not only symbolic, but also physiological/material. The participants also highlighted that being dirty – regardless of whether it is considered symbolically polluted – entails concrete practices and sensations that can be experienced as difficult and strenuous. I will come back to these practices below.

Douglas argued that pollution ideas come into being in social contexts. In Douglas’ reasoning, the (potential) reactions from other people

(such as rejection, fear, avoidance, shame, and disgust) are central. Relatedly, I explored above how previous studies have claimed that menstrual stains can be read as marks of social stigma that risk triggering negative social sanctions (e.g., Johnston-Robledo and Chrisler 2013). Tactile dirt, however, does not come into being in relation to other people, but is experienced on an intra-personal level. The menstruants' lived experiences emerge as more central, compared to those of "others" in whose eyes the stain is imagined to be shameful. In that sense, tactile dirt adds a dimension to discussions of menstrual concealment imperatives and the menstrual politics of passing; being menstrually dirty is not always strongly related to concealment imperatives and shame (Wood 2020), but can also be something more personal and concretely sensory.

## Smelly, reeky menstrual odors

Olfactory dirtiness is dirt experienced through the sense of smell. Early in the research process, when I conducted interviews with the very first participants, I noted that many found it relatively difficult to talk about menstru smells. When the theme was brought up, some made clear efforts to steer away from the subject or signaled a boundary. Eventually, reeking of menses emerged through the analytical process as one of the most emotionally negative dirt.

Pads were mentioned unexpectedly frequently in participants' descriptions of foul menstru smells. One specific survey question asked how the smell of menses was impacted by the products the respondents used (Q47). Reply after reply mentioned pads as something that worsened it. They stated that "it smells more if I use a pad," that "pads create more odor" and that "pads smell the most."<sup>26</sup> Interviewee Sara said that "it's not the menses that smell, it's the protection." Many participants described how, when shifting from using pads to using internally worn products, they had realized how much the pad had made their menses smell badly. Some claimed that different pad brands produced different smells, stating that pads containing perfumes made menses smell worse. The comparisons between different products show concretely how menstrual dirt

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26. Pads were also said to produce menstrual olfactory dirt when the survey participants were asked to more generally describe the smell of their menstruation (Q43) as well as when they were asked on how often they thought of the smell of their menses (Q42), if they'd ever thought about whether others could smell their menses (Q44), and when I asked them what they did to avoid smelling badly of menses (Q46).

comes into being differently in different human-technological interactions. Moreover, these narratives stress that menstruation is not necessarily smelly by default, but emerges as such in specific interactions.

### *The dangers of menstrual odor*

Sociologists of odor have argued that odor is one of the more symbolically polluted dirt in contemporary Western society (Largey and Watson 1972; Classen et al. 1994, 169). As such, being odorous is often stigmatized. In my empirical material, embodied menstrual odor emerged as something that is surrounded by very strong pollution beliefs, dangers and behaviors. Several survey respondents reported feeling disgusting and ashamed about reeking of menses themselves, as well as being afraid that others would think they were “disgusting” if they smelled. One survey respondent wrote that, in her childhood, smelling of menses entailed the risk of being the subject of slander among her peers, stating that the girls in her class talked ill of another girl because she reeked of menses. Another even stated that the mere act of contemplating whether others could sense their menstruumsmell felt “embarrassing and exposing.” Some also reported shame and stress for the sake of others who smelled.

Many of the participants also said it was difficult to know whether their menstruumsmell was noticed by others. This notion of uncertainty – paired with the professed danger of reeking – has a long history in the marketing of menstrual products, wherein menstrual odor has been positioned as risking social ostracism, while being imperceptible to the menstruating subject (Malmberg 1991; Freidenfelds 2009; Vostral 2008). Bodily odors have been said to be the perfect focus of marketing campaigns based on nameless fears, where the marketed product swoops in as a savior (Classen et al. 1994, 183).

Other respondents described markedly ambivalent feelings of being ashamed while simultaneously working to counter the idea that menstruation is abject. One stated that they had “shameful thoughts” when thinking their menstrual odor might be felt by others, even though they “know it’s not something to be ashamed about.” Another described how she had worked hard to rid herself of emotions of disgust and shame, but the feelings had remained when it came to smelling. Through her feminist lens she considered her negative emotions harmful, but stated “yet those feelings have a strong hold.”

The participants’ narratives of negative emotions suggest that menstrual embodied odor is dirt that may be strongly symbolically

polluted. Thereto, these narratives underline the pollution's impact on the menstruating subject. Emotions of disgust and shame were often directed toward one's own body and person, which many have argued has potentially devastating effects for personhood and sense of self (Martin 2001; Roberts et al. 2002; Young 2005; Rembeck 2008; see also Classen et al. 1994). Moreover, it seems as though, for many of the participants, thoughts about menstrual odor took up considerable time. According to my analysis, as many as 37 percent of the survey respondents thought frequently about their menstruum, stating that they thought about it "all the time," "very often," "multiple times a day during menses" or "[c]irca 100 percent of the time when I'm having my period." One wrote that they thought about it "[e]very time I'm menstruating. In all situations." While there were participants who did not seem negatively affected by such thoughts, others appeared more bothered and troubled. One, for example, wrote that "I have a constant worry about that," one wrote they were "very paranoid" (*väldigt nojig*), another reported being "constantly aware." Several mentioned anxiety, stress, shame, disgust, fear, or general social unease in relation to this. A couple of respondents noted that the worrying took time and energy from them, stating that "a lot of thought went into that," and described being "obsessed by the smell of [their] menses."

While this might be a result of my sampling strategy, which gave preference to participants who wanted to talk or write about their menstrual experiences and therefore potentially had thought a lot about it, it still suggests that some seem to think a great deal about this. Worrying and feeling shame about the smell of one's menses means worrying about one's social position, fearing, ultimately, the typical pollution danger of social exclusion. The sociology of emotions ties worrying to the feeling of fear (Bericat 2016). Roland Paulsen contended that worrying is counter-factual (Paulsen 2020), that it is not inherently based in actual reality but comes from an idea or an anticipation. The anticipation in the narratives explored above is that reeking of menstruation would have devastating social consequences, such as becoming abject or polluted in the eyes of another.

It was also evident in the empirical material that it was considered a great insult to tell someone that they smelled badly of menses. One participant described how once when she had sensed someone reeking, she had considered it completely impossible to confront them about it. The only case in which this participant considered it conceivable to tell

another person that they reeked of menses would be if the person was her own child. A couple of participants described the experience from the other side. They described how being told that they reeked had made them feel embarrassed and “unclean,” and that it had made them think or worry about their smell extensively from that point on. One participant who was told they had an uncommonly strong smell wrote that “[t]he thoughts were really tough” and that they thereafter had “felt incredibly ashamed when I had my menses.” Another stated that being told this “really got to me” (*satte sig ganska djupt*), and long after she “showered excessively” (*överdrivet ofta*) during menses, something she can still think about today. These narratives positioned being told by someone that one reeks of menses as a difficult experience with considerable emotional consequences. These emotions can be interpreted as signs of internalized or “felt stigma,” wherein the stigma is aimed at one’s sense of self, a typical example of the individual effects of symbolic pollution.

In addition to the emotional impacts, the participants also told of more practical effects. As noted above, some reported that worrying made them shower excessively. Others reported that, to avoid smelling, they changed pads more often, changed underwear more often, avoided certain clothes, and took care to move and position their body in certain ways during menses. Particularly, they avoided wearing skirts and took care to sit with their legs close together. One respondent described how they kept their legs together even though they didn’t think anyone else could sense the smell, just to be safe. The fact that the anticipated risk of menstrual reekage impacted the way they moved and placed their body is particularly noteworthy from a feminist perspective. The notion that women and girls are socialized into not taking up as much physical space as men is often exemplified by describing how women sit with their legs crossed rather than spread (see, e.g., Young 2005). The narratives of practices around menstrual odor suggest that this socialization is not only a matter of attitudes and ideas about female etiquette, but also underlines how embodied, material and technological factors interact with these ideas and enforce them.

The narratives also encompass practices of bodily vigilance and control commonly reported in menstrual scholarship. Several respondents reported feeling they had been overly occupied with thinking about the smell earlier in life, but that they thought about it less now. This could be considered in relation to scholarship stressing that high levels of bodily vigilance and self-control are particularly common among younger

menstruants who experience menstruation as stigmatized (Johnston-Robledo and Chrisler 2013).

*The pad's inscriptions on odor?*

In Critical Menstruation Studies, explorations of experiences of menstrual odor are relatively few.<sup>27</sup> However, several studies have demonstrated that the threat of others sensing the smell of your menses has been central in menstrual hygiene product advertisements throughout the history of the industry (Malmberg 1991; Vostral 2008; Freidenfelds 2009). Here, menstrual odor has been positioned as hedged with severe pollution dangers such as threats of social ostracism. It is therefore particularly noteworthy that the specific pad de-scribed here did not contain any mentions of odor on its package, nor in its commercial. This is in contrast to other pad brands that often advertise that they have so-called “odor-control functions” or are “scented” to mask smells.<sup>28</sup> However, Libresse did position preventing or eliminating odor as a key element of menstrual cleanliness in one of their online advisory texts. They stated that in a well-managed menstrual hygiene it was central to make sure that one “smell[s] okey” and that one should “change menstrual pads often to avoid the smell of menstruation.”<sup>29</sup> Through Douglas’ lens, one could interpret Libresse’s advice as positioning odor as a pollutant imperative to be avoided, and smelling badly as posing the risk of an abstract danger.

Moreover, this piece of advice on menstrual hygiene contains something else that I would like to direct attention to. Nowhere in the analyzed Libresse data did the company state any exact intervals at which the pad should be changed. However, olfactory dirt emerged in the analysis as a material instruction on when to change. The advisory text positioned reekage as a sign that the product was due for changing, which suggests that change frequency is inscribed in the physical qualities of the pad. I would also suggest that this is part of the basic function of disposables. They have a built-in trajectory toward a point at which they are rendered unusable. Their telos is to ultimately be disposed of. Producing sensory experiences of dirtiness – such as a bad

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27. Laws (1990) is one exception, though she focused mainly on men’s attitudes and experiences of smelling others’ menstruation.

28. For example, Always (Procter & Gamble) state on their package that they have a “fresh scent” and “100 % odour protection.” See Kemikalieinspektionen (2018).

29. See <https://www.libresse.se/v-zon/mens-en-del-av-livet/hygien-under-mens/>, downloaded 23 August 2018.

smell – is a given step toward the objective of being disposed of and changed for a new one.

## Washing the menstrual body

I will now turn to practices of dirt elimination related to embodied menstrual dirtiness in pad usage. It is central in Douglas' (2002) argument that secular Western hygiene practices could be interpreted as *purification rituals* – practices that serve to purify that which has been rendered polluted. Whereas Douglas focused on the symbolic and systematic aspects, my concern is with how purification rituals are enacted and experienced in practice.

I asked the survey respondents how their genital washing routine differed when they were having their period compared to when they were not. There was great variation in the replies. Many respondents wrote that they washed their bodies about the same way and at the same frequency regardless of whether they were having their menstrual periods or not. Others noted that they washed more often during menses. Many described washing one's body during the menstrual period as more difficult, problematic and laborious compared to when they did not menstruate. Pads were frequently mentioned in these accounts. The participants emphasized that the actions required depended both on the amount of menstrual flow and the product used. One respondent wrote that "it depends on how much I bleed" and that "if it's a lot you have to [wash] extra if you're using a pad." Another wrote that they washed "every day with pad/tampon, every other day with cup." One participant wrote that when she had been on birth control pills her menstrual flow had been so light that she didn't have to wash extra. In these examples, it is again evident how the dirtiness of the body emerges as being the result of an interaction between the technology used and bodily material specificities.

The participants also varied in how they went about washing. Many described washing menstrual genitals as something they did in the shower while washing their whole body, others described washing only their genitals either in the shower or using a shower hose, a bidet shower, or pouring water with a container while sitting on the toilet seat, and a handful used a bidet appliance. Others described wiping with toilet paper, sanitary wipes, a wet towel or the like. This variety suggests that there is no given standardized way of washing the menstrual body and highlights the many different hygiene technologies involved.

Considering menstrual bodily washing as a purification ritual positions the practice of washing as theoretically being a matter of pollution. However, not all of the menstrual washing analyzed emerged as being tied to pollution beliefs. On the contrary, getting clean was also a matter of physical pleasures and comforts, both in the sense that it can be pleasurable to get rid of physically uncomfortable dirt and in the sense that the act of washing can be pleasurable in its own right. Just like menstrual dirt, menstrual cleanliness emerges as being a matter of both symbolic valuation and embodied sensory materiality.

### *Resource-intensive purification rituals*

Based on several interviewees who described washing during menses as a partially cumbersome activity, I asked the survey respondents one deliberately negative question about what they thought was most difficult (*job-big*) about washing during menses. The respondents were split in half: 45 percent replied that they didn't think it was difficult in any way and 50 percent replied that they thought there were difficult aspects of washing during menses (the remaining five percent did not reply). This shows that menstrual washing was not cumbersome for all, but for a substantial proportion of the participants. The same pattern appeared within the group of respondents who used pads, suggesting that pads are not the only deciding factor. Instead, the difficulty of washing during menses is very likely also related to the amount of menstrual flow. Moreover, the participants told of how other technologies impacted their washing routines. Some brought up that their menstrual genital washing routine was less cumbersome in settings where they'd had a shower hose that was reachable from the toilet seat. This highlights how the menstruating body does not only interact with the pad (or other specific menstrual hygiene technologies), but also with other technologies. An assemblage of (f)actors engender a menstrual washing practice (and a menstrual embodied dirtiness) that may be considered cumbersome.

Within the group that considered it somewhat difficult to wash during menses, some participants were remarkably negative. One wrote that the worst thing about washing was "Everything!", another that the worst thing was that "it had to be done at all." Others reasoned that the worst thing was that one had to do it too often, or at inconvenient times, or that it was too time-consuming. Some wrote they thought it was boring. These answers position washing oneself during menses as resource intensive in relation to one's personal time and energy, and

something that many participants would prefer to do less of. In addition, the washing was also described as difficult, annoying and even pointless. Several respondents wrote that they often felt like one didn't get clean enough or that one got dirty again immediately after washing. Furthermore, some wrote that it was problematic due to painful cramps or tenderness, which highlights the fact that washing needs to be done during a time when many menstruants are experiencing other kinds of pain and discomfort.

However, the most frequent reply to what was worst about washing during menses was not the washing itself, but instead the efforts required to deal with the stains on objects around you while or after you had washed. As many as 63 respondents brought up the risk of staining towels, others mentioned risks of staining the floor, the carpet or one's clothes. The main concern was that it meant that one had to laundry or clean the object that had gotten stained. For many, it seems, getting the menstrual body clean is a matter of getting other things dirty. One respondent described how that made washing one's menstrual body "more cumbersome" (*mer omständligt*), "difficult" (*jobbigt*) and "time-consuming" (*tar extra tid*).

These examples position washing the menstrual body as a purification ritual that is clearly experienced as negative by some menstruants and positioned as costly in terms of personal time, energy and physical discomfort; moreover, it is inefficient. Also, menstrual washing emerged as a *continuous* purification ritual – one that had to be done over and over again throughout the menstrual bleeding period. Swedes often shower their whole body daily also when they do not menstruate. However, menstrual dirtiness, and menstrual odor in particular, is arguably more stigmatized than many other bodily dirt, which renders its elimination more imperative than normal day-to-day bodily washing.

In addition to personal resources, there are environmental aspects involved in bodily washing that should be briefly mentioned. One respondent brought up that one of the things they considered most difficult about getting clean during menses was that it took so much toilet paper, which bothered them because they did not think it was efficient and because it was environmentally problematic. As many as 82 percent of the survey respondents reported that they used more toilet paper when they were menstruating than when they were not. This was slightly more common for pad users than for non-pad users (193 compared to 170), and on the whole this highlights toilet paper as an important menstrual technology.

I reason that the pad – with its external position, absorbent function – is inscribed to enact menstrual dirtiness as being rather resource intensive. It does not, however, do this alone, but instead together with material qualities of the menstrual substance, other technological objects, as well as norms of cleanliness and concealment. In the practices explored above, the purification rituals of washing during menses emerged as being experienced in material and sensory ways, as a matter of labor and resources. For many it was quite cumbersome, tiring, hopeless and generally negatively experienced. I suggest that this negative framing stresses the fact that there is no standardized effective way of washing during menses. Instead, I would argue that it seems like the purification rituals depicted by these participants are remarkably difficult to carry out. Thus, I argue that standard Swedish bathroom appliances do not take needs related to tactile and olfactory dirtiness of menstruants into proper consideration and that they make menstrual washing more cumbersome than it has to be.

## The pleasures of embodied dirt

There were a few participants who described taking pleasure in menstrual embodied dirtiness. I will exemplify here with a statement from an interviewee with the pseudonym Nora.

JOSEFIN: Do you ever think about how your menses smells?

NORA: Yes I sometimes do that. I have noticed that it smells differently on different days of the menstrual week, like, well ... [pause] Well, and that it also, it sounds a bit shabby [*sunkigt*] maybe, but there can be something kind of like, when you become so much body, there can be some fascinating ... some disgusting delight [*äckelblandad förtjusning*] in [laughing]: “Oh is this what it’s like if you haven’t showered!” [laughing] And ... that you are so much *body* in some way ... yes, some kind of disgusting delight over it. It’s like well yes, there is a feeling of some fascination with it too – because I think in relation to everything else that’s around us, especially as a woman and girl, that it is so shameful [to be dirty] – to be very much just a body that *is* and *smells*. It is [otherwise] a lot like this, fixing and redoing and adding and removing and so on.

She described how she sometimes explored and reveled in menstrual dirtiness because it was such an embodied experience. She enjoyed, as was fascinating by, becoming “so much body” as a contrast to the many ways she thought women, girls and menstruants are generally disciplined into eliminating dirt and thus maintaining a distance from their bodies. Nora described her fascination as a mix of disgust and delight

(“äckelblandad förtjusning”). That is comparable to Ahmed’s discussions of how disgust is a “deeply ambivalent” emotion that entails a desire (2004). Additionally, fascination is an epistemic emotion: one of curiosity and wanting to know more (Morton 2010). I interpret Nora’s feeling of fascination as being based on her delight in experiencing something that society otherwise withholds from her, something that she feels she knows quite little about.

Nora’s description highlights how bodies that are not “managed” progress – inevitably – to a state of dirtiness. If one stops washing, one will eventually start to smell. Even in a completely passive state, the body is always in a process of becoming dirty: smelly, sweaty, and so on. Fanny Ambjörnsson tied this inevitability of dirt to it being a feature of life (2018). Cleanliness, on the other hand, entails an active practice and manual labor. In this narrative, Nora pointed both to the labor that cleanliness entails and to gendered imperatives of hygiene that she thought did not allow women to “be a body.”

It is here visible again, that some dirt emerges as polluted (essential or imperative to eliminate and conceal) in relation to other people. Nora noted that she did not, or could not, do this anywhere or anytime. Rather, letting herself “be a body that *is* and *smells*” was something reserved for when she was in solitude on weekends at home. Being home alone during her menses was a situation in which Nora could rest from cleanliness, pausing cultural imperatives of menstrual – as well as general – hygiene, and just be dirty.

## Concluding on wearing pads

Working with Akrich’s (1992) method of de-scription, this chapter explored visual dirt, tactile dirt, and olfactory dirt that come into being when wearing a pad. In line with Mol’s (2012) approach, the analysis showed that there was not one *single* actor or factor that made menstruation dirty or polluted. Instead, menses was enacted as dirty or polluted through interactions with a multitude of (f)actors: the body of the menstruant (with a specific menstrual flow, a specific sensory experience), embodied materialities (such as the menstrual substance and pubes), hygiene technologies (such as the pad and the shower hose), objects and materials (such as clothes), and cultural ideas (such as menstrual concealment imperatives and pollution beliefs). Menstrual dirtiness or pollution emerged not as an inherent feature of menstruality,

but as something that comes into being differently depending on the menstruator, the setting, the involved technologies, and so on.

However, the analysis also focused on the pad's distinctive role. The technology actualized specific kinds of dirt, and specific sets of purification practices, compared to other menstrual hygiene technologies. The analysis showed how a technology can impact how menstruation is defined and experienced as dirty. Therein, the pad emerged not only as taking part in defining certain aspects of menstruation as dirty or symbolically polluted, but as also involved in the actual material production of menstrual dirt. I interpreted the pad reeking as a material way of communicating to the user that the product was ready to be disposed of. This partially confirms Vostrál's (2008) theorization of pads' inscription with *technological politics of passing*, that positioned the pad as designed with a user in mind who needs to pass as a non-menstruant. I want to further this line of thought and look beyond the ideals defined in marketing and instead look at other ideals inscribed into the product. I suggest that the telos of the pad that is eventually to be disposed of positions the pad's ideal user not as one who efficiently conceals their menses, but instead as one who continues to buy the product. Therefore, I argue that the pad is also designed *not* to aid the menstruant in passing as a non-menstruant, but instead to eventually get both itself and the menstruant "just dirty enough," so that the menstruant becomes a user who is always on the brink of dirtiness, changing (and disposing of) their pad frequently.

Stains and odor emerged in the analysis as symbolically polluted dirt. The vigilant worrying and monitoring, as well as actual or anticipated reactions from others, emerged as clear examples of pollution behavior, defined by Douglas as "the reaction which condemns any object or idea [that] confuse or contradict cherished classifications" (2002, 44f). In this case, I read those "cherished classifications" as concerning the hegemonic idea that menstruation should be kept from others, that which has been called the "menstrual concealment imperative" (Wood 2020). Moreover, the participants' narratives regarding fear and shame related to visible stains and detectable odor clearly signaled what Douglas described as secular pollution dangers. While Douglas argued that pollution is often contagious, these polluted dirt, instead of posing a risk to others, seemed to be dangerous only for the menstruants themselves.

Tactile dirtiness was explored as a matter of physical discomfort and emerged as a more intra-personal dirtiness than other dirt. The focus on tactile dirt positioned the menstruants at the center. It focused on

embodied experiences and highlighted that washing practices are not always about purifying symbolic pollution, but that there are also other – more sensory and material – reasons for wanting to get clean. Emphasizing tactile menstrual dirt may enable negotiation of the overall framing of menstruation as symbolically polluted. It underlines the sometimes intra-subjective nature of dirt, i.e., that dirtiness is sometimes more sensory and embodied than social, and it suggests that there is value in also considering aspects of dirt that are less about social relations.

Douglas claimed that purification rituals are interpretable as attempts at maintaining a system or a culture (2002, 158f); they delineate the order, what goes where, and hold us to our assigned roles. Moreover, she maintained that pollution beliefs and purification rituals relating to genitalia specifically inform of the hierarchies and distribution of power between the sexes in the wider social system. How, then, can we interpret the fact that menstrual washing (purification rituals) emerged here as experienced as cumbersome, wrought with worry, excessively frequent, unstandardized, complicated and inefficient? One way to interpret the empirical results is that they tell us about a system in which the non-menstruant (man) is the norm, one that evidently undervalues the time and labor of women and menstruants, as well as one that downplays their discomforts and misrecognizes their needs.

## 6. Disposing pads – dangers of menstrual waste

Since disposable menstrual products began to be industrially produced, disposability has become completely central to contemporary menstruality, and synonymous with menstrual hygiene (Malmberg 1991; Kissling 2006; Brumberg 2010). Therefore, contemporary makings of menstrual pollution and dirt are inseparable from the ideas and practices surrounding menstrual waste. Some dirt scholars have argued that there is cause to analytically and theoretically separate waste from dirt (Lagerpetz 2018). They have highlighted that waste is not always dirty. For example, an empty soda bottle, a broken table or a worn-out shoe may definitely be thought of as waste, but they are not necessarily thought of as dirty or “matter out of place.” Moreover, Douglas partially separates waste and dirt. According to Douglas (2002), disposing of a dirty object is a means of neutralizing pollution. She has written that, when placed in a bin or garbage heap, waste, or “rubbish” as she called it, is transformed and no longer dangerous, ambiguous, or symbolically polluted. This, she suggested, is because it clearly belongs there, i.e., it is *not* out of place (Douglas 2002, 197f). Waste thus has a polluted status before it enters the bin, which the analysis of this chapter will confirm. However, as I will also explore, unlike other wastes, menstrual waste emerges as being full of potential dangers and ambiguities. It is sometimes clearly rendered “out of place” long after it has been thrown into the bin. In the participants’ narratives on menstrual waste, there were numerous accounts that included both disposable pads and tampons. The focus here will primarily be on pads, but will relate to menstrual waste in general.

In the previous chapter, I focused the analysis on pollution and dirt that emerged around wearing a pad. In this chapter, I will explore the step that follows: the objectual dirtiness of the used product. I continue the de-scription of the pad and what it communicates to its users, but focus on how it relates to waste specifically. I utilize a broad range of materials: the pad and its packaging and commercial, participant

narratives from interviews and the survey, and a study visit to the regional wastewater plant.

## The paramount importance of discrete disposal

The Libresse pad communicated in a variety of ways how it should be disposed of. First, I interpret its disposability as inscribed into the physical qualities of the pad. The relatively flimsy, non-washable materials told the user that the pad was meant to be used once and then disposed of. Similarly, the pad package's thin plastic further communicated prompt disposal. Second, texts and symbols on the package told the users about the standards of disposal and levels of dirtiness or pollution of the used product. On the front of the package reads the product slogan "Roll Press Go" along with illustrations on how to roll the used pad, preparing it for disposal (see Figure 4), and a text on the back described the disposal function, stating: "What to do with a used towel? Simple. With our wrappers, you can seal up your towel neatly and cleanly, no matter when or where. Roll – Press – Go." The text was paired with an illustration that further explained how the user should roll the used pad; press the edges together, and then throw it in a bin (see Figure 6). The disposal function was also presented on the internal wrapper (see Figure 3).

On the bottom of the external package, five symbols (see Figure 7) positioned the package and its content as disposable. A crossed over toilet and a garbage bin symbol told the user where the pad should and should not be thrown. In the product's TV commercial, the special disposal-function was framed as making menstruation more easily manageable in contemporary times compared to the past, making menstruants of today freer to do active, adventurous and masculine things in public life (e.g., going on safari, biking, partying, playing drums, competitive sailing) than women could do previously. In the commercial, a speaker voice stated that "back then," menstruants had to stay close to home so that they could "discretely change and dispose of the pad."<sup>30</sup>

The illustration of the "Roll-Press-Go" disposal function on the package clearly instructed the user how they should manage and dispose of the used product. First, the used pad should be covered by rolling it in the external wrapper ("roll"). Then, the user should make sure that it was tightly sealed ("press"). Thereafter, the product should be thrown into a

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30. Libresse commercial "Roll Press Go," published 2014.

garbage bin (“go”). I interpret the primary message as indicating that the used product should be covered or concealed before disposed. The idea is that the user rolls the pad in the internal wrapper of a new pad when they dispose of the old one. This is a rather common, and quite old, feature of disposables. What could be regarded as really “new” here is the wrapper’s “seal,” which supposedly makes it easier to close the little package along the edges, after it has been “rolled.” Furthermore, the depiction of the disposal function also tells the user what set of ideal emotions they should have in relation to managing a used product. The question “What to do with a used towel?” positions disposal as a problem, and usage of the word “simple” serves as an implicit response to the idea that the user considers disposal “difficult.”<sup>31</sup> Moreover, the expression “neatly and cleanly” responds to the notion that users conceive of used pads as “messy and dirty;” and the phrase “no matter when or where” responds to the idea that users should think or feel that there are many situations in which it would be problematic and difficult to dispose of the product (see Figure 6). The concealing function of “rolling” and “pressing” especially emphasizes concealment as an imperative. “Discrete” disposal is positioned as the goal, which sometimes indicates that it is important that no one see the used product in its unrolled form. Here, menstrual waste comes into being not only as a dirty used-up object that should be thrown away, but as more imperative than other wastes to conceal from other people, thus defining menstrual waste as a particularly polluted kind of waste.

The pad, using Wood’s (2020) concept very concretely, is inscribed with a *menstrual concealment imperative*, here, specifically the imperative to conceal menstrual waste from others’ view and perception. In line with Vostral’s (2008) argument, the technology works to help its user pass as a non-menstruant. The pad presupposes and responds to an existing idea of menstrual waste as imperative to conceal, on the one hand, and also (re-) creates and (re)defines the pad as polluted, on the other. While the pad communicates that it is imperative to conceal the waste, the reason why is not explained. Rather, I would argue that the pad and its advertisement construct non-concealing as an impossibility. Menstruating in public without the special “hygienic disposal” function is rendered unimaginable – undoable. The professed impossibility subtly but clearly signals that the alternative is dangerous. Moreover, the pad’s focus on discretion and

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31. “Towel” is Libresse’s word for pad.



Figure 6. Details from backside of Libresse pad package.



Figure 7. Detail from bottom of package.

concealment suggests that the dangers are tied to other people seeing or noticing one's menstrual waste. By emphasizing the menstrual concealment imperative, the pad scripts, or encourages, the user to worry about failing to conceal menstruation, and implicitly ties failure of menstrual concealment to emotions of shame.

### On forgetting to dispose of a used pad

On several occasions during the early stages of this research, people told me stories about what had happened when they had forgotten to dispose of a used product. They described situations when they had been quite horribly shamed by others. These stories stayed with me and led me to ask about such events in the survey. Was this a common experience? It turned out that many of the survey respondents described forgetting to dispose of a used pad as a thoroughly embarrassing experience.

In the participants' narratives, it was evident that the imperative of menstrual concealment was emotionally felt. The participants described varying degrees of shame and embarrassment when recalling situations when they'd left their used products behind. Some wrote that they had "wanted to sink through the floor," that it was "really embarrassing!!!", that it had made them feel "a lot of shame," and "an inner panic." One respondent stated that she had been so embarrassed once when her used and forgotten pad had been found that it had taken years before she could confess that it had been hers. Some respondents described having mixed emotions about the fact that they had felt shame in that situation. One, for example, wrote that she "didn't want to be ashamed" about her menses, but still did not want her partner to see her used pad, another that she "shouldn't think that is that big a deal," but still stated that she felt ashamed. I read emotions of shame as indicating that the used pad is defined as symbolically polluted. Douglas (2002) held that shame is a key example of a secular sanction that threatens those who have transgressed boundaries of a system. Sociologists of emotions have also argued that shame signals transgressions of moral orders, and as such constitutes a threat to the social bonds (Scheff 2003). I read the narratives of shame being ambiguously felt as contestations of that pollution belief, on the one hand, and as reiterations of it showing that it is questioned, on the other.

The feelings of shame related specifically to other people having seen the used product. Some participants made distinctions between different others. For example, one respondent wrote that she felt less embarrassed because she had such a close relationship with the person – her father – who had found the forgotten used pad. Similarly, another respondent noted that she hadn't been bothered because it happened at home, with her parents or partner present. Conversely, some brought up that it was especially embarrassing in relation to other people, such as guests and a friend's sister, or one's boyfriend. This highlights how menstrual waste comes into being as polluted in relation to other people. As I explored in the previous chapter, menstrual substance emerges here as coming into being as "out of place" (i.e., polluted) at the moment it is seen by others.

In some narratives about failed disposal, the respondents had been very explicitly shamed by people close to them. One respondent remembered having been scolded by her mother, "because [her] dad shouldn't have to be exposed to it." Another described how her mother had said

that she had been “really disgusting” and wrote how that had made her feel “sad and ashamed.” A third wrote about her father telling her she’d “forgotten [her] ‘diaper’” and that she then had felt ashamed and “disgusting.” Parents’ acts of shaming, while surely kindly meant in some respects, essentially punished the young menstruants into learning the rules of menstrual concealment: that when and if you fail – you are dirty and disgusting. Rendering menstruants “disgusting” when they forget to dispose of their used product also highlights the stigmatizing effects of failing to fulfill the imperative of concealment. Specifically, some participants described how they directed such emotions of disgust and shame toward themselves, stating, e.g., that “I felt disgusting and ashamed.” Here, even when the dirty object was quite far removed from one’s body (i.e., lying on the floor in a bathroom somewhere), it was sometimes tightly connected to the participants’ embodied selves.

Like in the case of worrying about staining one’s trousers, the participants often described failed disposal as a feature of their teenage years. One survey respondent described how she nowadays felt that forgetting to dispose of a pad would merely be a little annoying, but when she was younger she had thought it very embarrassing.

I have forgotten it at home sometimes, but then it has been rolled [*inbakat*] in toilet paper so it has mostly looked like a package of toilet paper. But if blood has been seen, then I’ve felt that oh no, typical. I prefer not to forget to throw it in the intended container at work and I’m always careful to check it before I go out of the toilet. It’s really engrained in me [*sitter verkliggen hårt i mig*] to control it. Today, I wouldn’t think it was so bad if I forgot a used menstrual protection and it was visible, I think, more annoying. But when I was younger, it was almost the worst and most embarrassing thing I could imagine happening. Since then, it has stuck with me to always check. Have I thrown it away? No blood? Have I flushed? etc. (Survey reply to Q51.)

Even though she did not feel strongly about it currently, she reasoned that her past valuation was engrained in her menstrual routines. In this example, it is clear that, when she was younger, the imperative was more authoritatively commanded and severely felt. It also underlines that even though feelings of embarrassment may lessen over time, the habits and routines created long ago, when the imperatives were stronger, remain.

For many reasons, ideas and routines that are established around menarche are crucial to how menstruants relate to their bodies throughout their lives. Several menstrual scholars, like Iris Marion Young (2005),

Gun Rembeck (2008) and Tomi-Ann Roberts and Patricia L. Waters (2004), have argued that it is particularly troublesome when menstruation is rendered disgusting during one's teenage years. The parents' shaming presented above is readable as a tactic used to teach their children to behave in the correct hygienic way (see Kristeva 1982). Such a tactic entails problematic risks of stigmatizing the menstruant, as menstruation is so intimately connected to their sense of becoming, and being, a grown-up and – often – a woman. Menarche and the early years of menstruating have been described as a rite of passage (Chrisler and Zittel 1998) or a “status passage” (Glaser and Strauss 1971 in Newton 2016) – a transition from one phase of life (here: childhood, girlhood) to another (adulthood, womanhood). Many anthropologists, Douglas among them, have reported on examples of cultures in which menarche is tied to initiation rites where girls are ritually welcomed into a new status, a new phase of their life (Douglas 2002; Gottlieb 1988; Knight 1991). Douglas maintained that Western secular hygiene practices are readable as rituals. In these examples, then, where menstruants are taught to care for their menstruation by being called disgusting, I argue that menstruation and menstruants come into being through shame and disgust. Herein, the symbolic pollution is tied not only to systems of order, but also to people's sense of self and being in the world.

In this section, I have explored situations in which the used pad was not “put in place” by disposing of it in a bin. Here the waste occupied a somewhat liminal and marginal state – on the way to some kind of purification or elimination. My analysis highlighted fundamental aspects of the imperative to conceal menstrual waste, when failing to do so puts menstruants at risk of being rendered pollutant themselves. The dangers only hinted at in the pad's marketing were concretely and acutely felt by many participants, teaching them the importance of concealment through experiences of being the targets of shaming.

## Rolling as purification ritual

The Libresse pad instructed the user to “roll” and “press” the pad after use. I interpret the instruction of rolling the pad as a very tangible materialization of the concealment imperative. One must, “says” Libresse, wrap it in a way that makes its dirtiness less obviously perceivable. Looking through Douglas' lens, I position the act of rolling as a ritual of purification that serves to lessen the professed danger of the symbolically polluted waste.

Though Libresse argued that the disposal function was “new,” the practice of *rolling* the product was positioned by the participants as a taken-for-granted routine of menstrual hygiene that had been around for ages, though using toilet paper was more common than using the pad wrappers. In Charlotta’s description of her first menstrual period, she talked about how her aunt had taught her about pad disposal. Charlotta particularly remembered that her aunt had emphasized the rolling. She had said that by rolling the used pad in paper before one threw it in the bin, it “stayed together” and that then “no-one has to know what you’ve done ... if you think it’s awkward.” In Charlotta’s narrative, the used pad came into being as potentially problematic for the young menstruant, exposing the view that the blood may be “awkward” (“jobbigt”).

Several survey respondents noted that the level of embarrassment associated with forgetting a used pad was significantly lessened if the product was “rolled” or “packaged.” For example, one respondent wrote that because they always rolled their used product, they hadn’t worried about “whether anyone would be disgusted or the like.” Another wrote that if the pad was rolled it “wasn’t that bad,” and one wrote that they had been relieved and happy that the product was rolled all the times her partner had found it. The rolling was perceived as a practice that rendered the used pad less disgusting, less shameful, and as such – it seems – less dangerous (less polluted).

However, if the rolling failed to contain the menstruation, it was seen as having lost its concealment powers. One respondent wrote that forgetting the used rolled pad was alright as long as the paper hadn’t “bled through,” a comment that positions the visibility of the blood as central to pollution. The menstrual waste was not regarded as polluted when it was maintained within the set boundaries of the pad and the wrapper. Essentially, the wrapper seems to act as an additional “defense” or boundary between the menstrual substance and the social system.

Another respondent wrote that their main concern was not the blood, but instead the smell. Though containing odor could be interpreted as a purpose of the “press” function of the pad, odor is arguably inherently more transgressive of boundaries than potential visual dirt and less possible to contain within an, albeit wrapped, hygiene product.

The used pad was also described as more generally “disgusting” without any explicit reference to a specific kind of dirtiness, such as blood or odor. Moreover, there were many respondents who seemed to consider the rolled pad to be just as disgusting and embarrassing as an unrolled

pad. For instance, one participant wrote that it was “embaaaarassing!” to forget a rolled pad. One wrote that her mother had shown disgust “even though it was rolled,” which had surprised her. Another wrote that she felt “a little shame about the unfreshness.” I position the word “unfresness” as indicative of the implacability of the polluted status of the used product. For some, rolling it was apparently not enough of an act of purification. In these cases, menstrual waste emerged as quite absolutely symbolically polluted.

Several participants brought up that men and boys often seemed to have “an animosity/fear/fright/disgust” – as one participant put it – with regard to touching a used product, even when it was rolled. One survey respondent described how she had once, when she was 23 years old, forgotten her used, rolled, pad in a bathroom that she shared with five young men. They had apparently considered it so impossible to pick it up and dispose of it that they had called her at her work to inform her of the situation and suggested that she come back and throw it in the bin. When she returned home from work seven hours later, the pad was still on the floor beside the toilet seat. The respondent wrote that she’d felt quite ashamed, but at the same time thought it was rather amusing, stating that “[t]here is something comical with men having [such] a strong fear of menses. So much so that they cannot throw away a pad themselves, even when it’s rolled in clean, non-bloody paper. Haha!” The participant described the young men’s behavior as irrational and laughable. In laughing at them, the participant provided an alternative valuation where the used pad was not at all polluted, at least not when it was “rolled in clean, non-bloody paper.” The narrative stresses the fact that, for some, the pollution of the used pad is forceful enough to render it completely untouchable. This is an obvious example of symbolic pollution.

There were also many examples of menstruants who described practices they themselves used to avoid having their menstrual waste touched by others. Interviewees Karin and Nora both brought up experiences of menstruating during prolonged outdoor activities like camping. They considered it the norm in such situations that menstruants should carry their menstrual waste in their own backpack instead of putting it in the group’s general waste bag (supposedly carried by someone else).

NORA: I was camping with a guy and then [laughing] I thought “But what the heck am I like supposed to do with all my pads?” Like, [...] you were supposed to carry them in the bag! [laughing] It felt a little shabby [*sunkigt*] [laughing] in some way, that after that weekend I had like a bag with lots of used pads in

my backpack. Like then it became very obvious that here is my *garbage* [*skräp*]! [laughing] Which I cannot really put [with the rest of the garbage], but we had bags with food waste and all other kinds of rubbish, which you can't throw in the woods neither. But it felt like *this* garbage I'm taking in *my* bag ...

The norm requiring that menstruants carry their own menstrual waste makes visible how menstrual waste comes into being as a particularly symbolically polluted kind of waste: It is more personal, more connected to the embodied self, and somehow more dangerous for others to see or be in contact with. Furthermore, the notion that menstrual waste should not be mixed with other wastes highlights an imperative of *separation*, in addition to what Wood called an imperative of concealment (2020).

Nora reflected that her camping experience had made it “very tangible that here is my *trash*” that “*this* trash” was supposed to be carried “in *my* bag.” Several respondents described menstrual waste as “my waste,” also when referring to more indoor and domestic settings. One respondent wrote that they had forgotten a used pad in their underwear and then their grandmother “happened to be the one who did the laundry.” That had made the respondent feel “careless and reckless to expose [my grandmother] to my ‘waste’.” Apparently, some consider exposing others to one’s own menstrual waste to be inconsiderate and disrespectful. This further highlights the continuity of the connection between the polluted waste and the menstruant’s own body and self. If one compares a dirty pad to other matters that are dirty or “out of place” that most (Swedes, for example), without pause and on an everyday basis, leave for others to clean up – dirty dishes, dirty clothes, dirty floors, and (for some of us even) dirty toilets – a dirty pad is positioned as a kind of waste that is deeply personal, one that the person who made it needs to – quite literally – take care of themselves. I read these accounts of concealing and separating menstrual waste from other forms of waste as showing that menstrual waste comes into being as forcefully symbolically polluted.

## The importance of garbage bins

I highlighted above how the Libresse pad’s “new hygienic disposal function” positioned the used pad as a special kind of waste that needed to be managed in a certain, concealed and separated, way. On the pad package, symbols indicated that the used pad, after having been rolled and “pressed,” should be thrown into a garbage bin, which was connected to the “Go” on the package (see Figure 6). Another symbol indicated

that it should not be thrown into the toilet (see Figure 7). Moreover, as explored above, imperatives of concealment and separation of menstrual waste were communicated to many participants by people close to them – as in the cases of parental reprimands – and through tacit norms and conventions – as in the case of the camping garbage. When it comes to public toilets in Sweden, there are often quite explicit instructions for disposal of menstrual waste. There are often signs with pleas to not flush hygiene products such as “diapers or pads” down the toilet (see Figure 8). Moreover, one typically finds some kind of so-called “sanitary bags” (*sanitetspåsar*) intended “for sanitary pads,” as it is printed on them (see Figures 10 and 11). These bags clearly communicate the imperative of menstrual separation, thus underlining that menstrual waste should be kept separate from other wastes as well as concealed from other people’s view. In domestic toilets, instructions for disposal of menstrual waste are less explicit. How and where to dispose of a used product in domestic settings, however, emerged as a key concern, and a rather hot topic, for many of the participants.

Specifically, whether one used a bin in the bathroom or the kitchen bin for menstrual waste disposal was for many an important, emotionally charged concern. I first noticed the heatedness of the topic in a discussion thread on the forum familjeliv.se, analyzed early in the research process. The thread began with: “I’m annoyed with people who don’t have a bin in the toilet.” What followed was a relatively lively discussion including strong emotional language. It was posted in August 2010 and has since attracted quite a bit of attention. It had been read 50,220 times and had 637 replies as of 14 February 2018. Following the discussion, there seemed to be a rift between those who, in one corner, thought that bins were an absolute must in bathrooms and those, in the other corner, who did not. This – paired with the focus on bins at a study visit I will describe below – prompted me to ask the survey respondents about this specifically.

Almost 86 percent of survey respondents reported that they had a bathroom bin in their domestic toilet or bathroom, and the remaining 14 percent that they did not. Many of those who had a bathroom bin positioned it as a very important feature, describing it as: “a naturally important thing” (“typiskt viktig grej”), “really important,” stating that having one was “common decency” and “a must” (“självkärl!”, “det är ju ett måste”). Many wrote that they thought it was “really difficult” when there was none (“jättejobbigt att inte ha det”) and described, in line with the



Figure 8. Photos of signs at public toilets in Sweden. From left to right: Two photos of signs in public toilets at the University of Gothenburg. The first one says “Note! Never throw diapers, pads or paper towels in the toilet.” The second one says “Note! Never throw diapers or pads in the toilet.” One photo of a sign at a toilet at a theme park in southwest Sweden says “Only toilet paper can be disposed of here. Pads etc. should be thrown in the container on the wall!”



Figure 9. Public toilet with sanitary bag. Figure 10. Paper bag. Figure 11. Plastic bag. From left to right: A photo of a toilet at the Department of Sociology and Work Science at the University of Gothenburg. Paper sanitary bags have been inserted under the lid of the container to the left of the toilet seat. An image of a paper bag with the following written on it in Swedish, English and German: “Bag for Sanitary Pads. Please do not throw in WC.” A photo of a plastic equivalent photographed at the regional wastewater plant in Gothenburg.

discussion thread, rather strong emotional responses to people not having bins. One wrote that they “always [got] really annoyed” when there was no bin, another that they “detested it when people don’t have one” (“avskyr”), a third got “angry with everyone” who did not have a bathroom bin. Some explained that their anger was related to perceiving not

having a bin as being inconsiderate to women and menstruants. That was sometimes paired with notions of it being typical of men or boys.

Why, then, was this so important to these participants? Apparently, it had a great deal to do with the menstrual concealment imperative. The participants often explained that they thought having a bathroom bin was an imperative feature because they wanted to avoid carrying their used product outside of the (toilet) bathroom. Some replied in practical and neutral terms (which will be further explored below), whereas others described disposing of the used product in the kitchen as being tied to negative emotions, such as shame and disgust. Many remarked that they didn't want anyone to *see* the used product in the kitchen bin, as it was more *visible* there ("synligare"), that others "might find it disgusting," "unhygienic" or "unfresh" or that it was akin to "carrying poop paper" out in the open. I position the participants' explicit notions of hygiene and freshness, as well as expressed emotions of shame and disgust, as signaling symbolic pollution. Moreover, Douglas' famous definition of dirt or pollution as "matter out of place" (2002, 44) is remarkably relevant. Douglas argued that dirt and pollution are relative: "Shoes are not dirty in themselves" she wrote, "but it is dirty to place them on the dining-table" (ibid., 44f). Similarly, it appears as if these participants charged the waste with being pollution when it crossed the boundaries of its assigned place. The "right place" that these participants communicated was the bathroom (toilet) and/or anywhere invisible to others. Again, concealment of menstruation is performed and experienced as a norm.

The participants felt very differently about this. For instance, one survey respondent described her own attitude toward menstrual waste, which she considered no more disgusting than other wastes, while others felt much more negatively about it. Moreover, the accounts were different in that some related to their own feelings of disgust, while others related to the feelings of others. One respondent, for example, talked about avoiding throwing the used product in the kitchen bin because "many consider menses unhygienic." Here, I would argue that the dirty object is rendered a *potential pollutant*; the menstruant imagines a risk of other people perceiving it as polluted. I interpret this as an act of both protection against being considered disgusting and filthy by others and care for those who might consider it disgusting. I would argue that even though many respondents did not convey personal feelings of disgust and shame, these practices of concealment are still interpretable as informed by pollution ideas. The waste, or menstruation in general,



*Figure 12. Participant photographs of bathroom bins. From left to right: interviewee Karin's bathroom bin, interviewee Sara's personal bathroom with a bin.*

need not be considered shameful and disgusting by the menstruants themselves for it to be regarded and enacted as a matter of symbolic pollution. Pollution, or taboo, emerges in this example as not necessarily concretely felt or explicitly stated, but instead as imaginations of other people's feelings and as a concern for their comfort.

One respondent reminisced about her early teenage years when she'd been "dating" ("var ihop med") a person who did not have a bathroom bin and described a variety of ways in which she then went about discretely disposing of her used products. Once, she had hidden one under the bathtub, and another time she had thrown it out the window. This, she described, was done to avoid "going out with [her] used product to throw it in the kitchen." While this respondent described the absence of a bin as "a *little* difficult" (my emphasis), it was quite apparent that she considered it far from a minor nuisance. The respondent also communicated that she felt that she had gone to relative extremes, evident in a final remark she made: "Yuck, now I'm revealing my innermost confessions." I interpret her semantic diminution of the lived difficulty as a euphemism for the exact opposite: It was in fact not "a little difficult," but instead completely out of the question for her to carry the used product to the kitchen. Several other respondents similarly seemed to consider disposing of their used products in someone else's kitchen bin to be a very difficult or even impossible act.

Many participants described how they, instead of throwing their used disposables in the kitchen bin, put it in their handbag or coat pocket. This was done to avoid talking about or showing their menses. For example, one said that it “feels odd to just say ‘hey where can I throw this?’” This approach is apparently rather common. Moffat and Pickering (2019) reported how Scottish school girls do the exact same thing, as a result of what they called *the infrastructural neglect* of not facilitating easy disposal of menstrual waste. Here, again, we have cause to return to the Libresse pad’s special “disposal function.” The wrapper’s design, which allows users to “neatly and cleanly” close (“press”) and contain the menstrual substance, emerges as having a very practical relevance for the user. In such instances, when a used pad is rolled and carried in a backpack, pocket or purse instead of thrown into a trash bin, the “discrete disposal” function serves to avoid staining what it is carried in (the pocket, purse, etc.). Libresse’s “press” function thus reaffirms and/or amplifies the notion of menstrual waste as a difficult kind of waste that cannot simply be thrown away anywhere. Again, it comes into being as an especially polluted kind of waste, tied to considerable amounts of practical and emotional labor aimed at concealment and separation.

## Menstrual pads down the drain

Instead of carrying it with them, many participants described how they dealt with the lack of discrete disposal facilities by flushing their used products down the toilet, despite the frequent signs in public toilets asking them not to. Along with other menstrual wastes such as used tampons and pantliners, disposable pads have long been the headache of many a plumber, because they can clog drains and sewerage systems. More than 40 percent of survey respondents reported that they had flushed used menstrual products down the toilet, though many also wrote that they thought doing this was problematic. Their reason for doing it was commonly, as discussed above, that they had been in situations with no bathroom bin and considered the alternative of carrying it out of the bathroom impossible.

There were 16 respondents who reported situations in which flushing a product down the toilet had resulted in clogging and blockages of the sewer. This was generally described in terms of humiliation, “panic” and embarrassment. Disposable menstrual hygiene products are inherently tricky to flush, as they are designed not to disintegrate in fluids like

water and, crucially, to absorb fluids, thus increasing in size. In combination with the size of Swedish standard piping, this is a sure recipe for “disaster.” It should be noted, however, that many more respondents (34) described sewer blockages caused not by flushed products, but instead by the increased usage of toilet paper during menses (due primarily to the menstrual flow and increased defecation). Again, toilet paper emerges as a central menstrual technology in the Swedish context.

In 2015, the Gothenburg City Council and the regional wastewater treatment plant (Reningsverket Gryaab) initiated a campaign to teach the city’s population not to throw their pads and tampons in the toilet (see Figure 13). It communicated that pads and tampons “get stuck” in the wastewater treatment plant and that they therefore – ultimately – pose a threat to our oceans. On a visit to the treatment plant (November 2017), I was welcomed at the entrance by an exhibition that, among other things, displayed educational texts or instructions about disposal. The texts provided instructions on what to and what not to flush, what one should do instead of flushing things down the drains. They stated that the plant was hampered in its main objective to “cleanse the wastewater from nutrients that add to overfertilization of the ocean” by each day having to manage “2000 kilos of trash” (Figure 14). Menstrual waste was used as an example in several parts of the exhibition (Figure 16). The exhibition suggested that the right way to dispose of menstrual waste was to “put a bin in the bathroom and throw it there” (ibid.). Again, but from another angle, this waste was singled out as a different and difficult kind of waste, which should be treated differently and which was tied to certain (here environmental) risks and dangers if managed incorrectly.

The study visit also made visible that the pads have “physical scripts” (Hubak 1996) that position pads as a difficult and problematic kind of waste. Their function of absorbing fluids without disintegrating is part of why they are one of the few distinguishable objects in the sludge-filled filters of wastewater plants (see Figure 15). In the pictures below you can see, if you look hard, that pads, their wrappers, tampons and pantliners (along with plastic bags, cotton-swabs, condoms and “snuff bags”) stand out as distinguishable objects in the sludge. When I ended my visit, the last thing the kind engineer who had showed me around said to me was: “Tell people to put a bin in their bathroom!”



Figure 13 (on the left). Campaign poster on disposing menstrual hygiene technologies. The text reads: “It matters what matter you flush! Q-tips, tampons and pads get stuck in the wastewater treatment plant. Pee, poop, blood, vomit and toilet paper are alright to flush down the toilet. Nothing else. Take care of our water!” Photo taken by author in December 2015.



Figure 14 (on the left and above). Information posters in entrance of wastewater plant. The text to the left says: “A small cotton swab in the toilet doesn't matter, does it? Well it actually does! Gryaab purifies your and 750,000 other people's wastewater. Every day we receive just over 2000 kilos of rubbish to Ryaverket [the plant]. We are not here to take care of wet wipes, snuff bags or tampons. Nor do we want your paint, white spirit or acetone. We exist to purify wastewater from the nutrients that contribute to overfertilization of the sea. In addition, we produce climate-smart biogas and return the nutrient-rich sludge to the cycle. So, for us at Ryaverket to be able to do a really good job, your efforts are very important. If you flush the wrong things down the drain, the sea feels bad. And if you flush down the right things, the sea feels good. Simple huh?” The text above says: “Just flush pee, poop and toilet paper down the toilet. This is what the treatment plant is designed to take care of. You throw all the rubbish in the bin. Simple, right?”

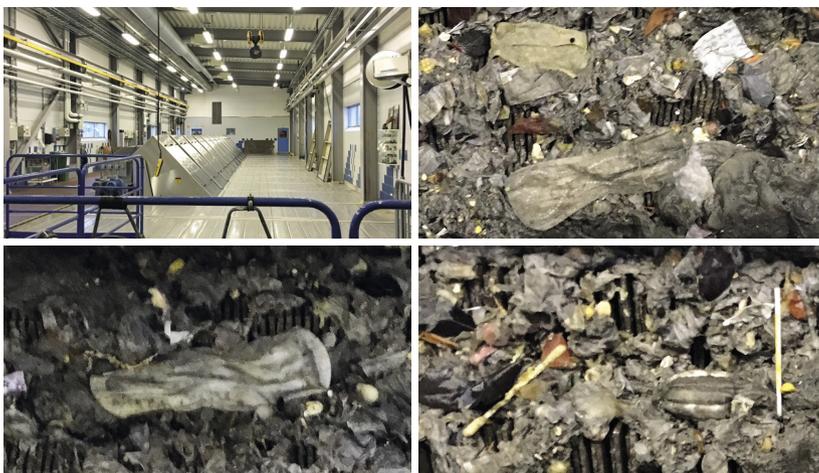


Figure 15. Photographs of filters at wastewater plant. Pictures taken by author at a field-visit to the Gryaab wastewater treatment plant on 22 November 2017. First row: To the left an image of the hall where solid waste is filtered at the treatment plant. To the right a zoomed-in image of a filter. There a pantiliner or pad with a faint heart shape on its surface is visible. Second row: To the left a filter with a visible pad and a pad wrapper. To the right a filter with two cotton swabs and one tampon.

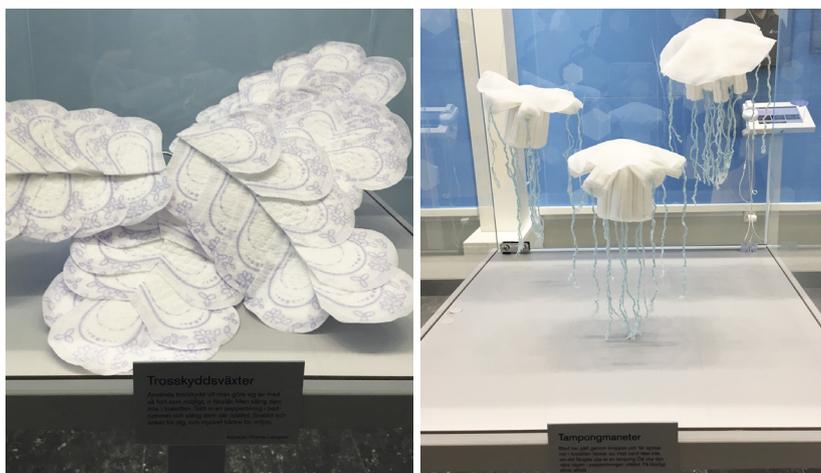


Figure 16. Installations at art exhibition in entrance at wastewater plant. To the left: “Panty-liner plants – You want to get rid of used panty liners as soon as possible, we understand. But do not throw them in the toilet. Put a trash can in the bathroom and throw them there instead. Quick and easy for you, and much better for the environment.” To the right: “Tampon jellyfish – Blood has passed through the body and can be flushed down the toilet, you think. Totally true! But not if it has been caught by a tampon. Then it should go straight into the trash instead. That’s bloody serious!”

## The practicalities of menstrual waste

Many participants described in the analysis above how failing to live up to the imperatives of concealment and separation of menstrual wastes resulted in feelings of shame and disgust, including the risk of being rendered disgusting by others. I interpreted the participants' accounts as being about emotional and psycho-social risks and dangers. The reactions were tied to protecting one's role and status in the group, and saving one's own face, as well as the face of others (Goffman 1955, 1966, 1972). Douglas would have highlighted these kinds of dangers as typical secular "pollution dangers" (2002, 162) and argued that such a "hedge" around the system serves to uphold its vulnerable boundaries (ibid., xiii). The practices that are carried out to uphold the concealment as well as separation imperatives of menstrual waste could be described as rituals that serve to eliminate or lessen the pollution. However, there were also more concretely practical rationales presented by the participants.

For example, having a bin in the bathroom was described as being more "practical," "easy," "close," "quicker" and less "cumbersome" ("omständligt," "krångligt"), "tiresome and sticky" ("bökgigt och kladigt") than using the one in the kitchen. Hygiene practices come into being not only in relation to concealment imperatives and shame, but also – and sometimes primarily – as a way to concretely avoid unwanted practical labor in everyday life. Similar practical rationales were also given by those who *did* use the kitchen bin. One respondent wrote that she didn't have a bathroom bin because she wanted to avoid her children playing with it, another noted that she couldn't "be bothered to change bags in two bins," many said the bathroom bin was easily forgotten and would start to smell, and several participants mentioned that having a bathroom bin meant having to do the double work of sorting twice as the recycling containers were in the kitchen. Also in these cases, the participants described their choice of disposal method as less labor intensive than the alternative. In both cases, it is evident that disposal involves finding tactics and routines that minimize the amount of practical labor involved.

This also shows that pads and other disposables emerge as inscribed with other, and perhaps more, practical labor than reusable menstrual products do. When Karin compared using a pad to using a cup when outdoors, she said that using pads was "cumbersome" ("bökgigt"), partially because she had to "drag around ... lots of used pads." The pad

emerges as inscribed with quite laborious acts of waste management. On one level, one can suppose that the pad and the bathroom are technologies (or rooms filled with technologies) that are designed to assist people in managing discrete and simple disposal, as Libresse underlined on the package. As discussed above, the pad is inscribed with a hypothesis about a world in which menstrual visibility is problematic and proposes to be able to solve the problems menstruants face in such a world, as suggested by Vostral (2008).

It seems logical then to consider the laborious nature of menstrual waste as a failure of the pad, as well as of many related hygiene technologies. Akrich argued that, by focusing attention on technologies' failures, one can "revea[l] the inner workings" of them (Akrich and Latour 1992, 260). The question then becomes: What is it that is revealed? I would argue that the failure to accommodate effective and simple disposal of menstrual waste reveals important information about who and what were taken into account when the respective technologies were designed and standardized. Whereas most bodily wastes can be easily handled in a standard bathroom, menstrual waste requires that additional measures be taken by the user. Here, I echo and underline what Moffat and Pickering (2019) maintained: that the laborious nature of menstrual waste is a clear example of the systematic and built-in *infrastructural neglect of menstruation* (ibid., 781). I also add to their study by showing that disposing of menstrual waste is unnecessarily laborious not only in public settings, but also in domestic ones.

In Douglas' reasoning, the issue of whether something belongs in a certain place is completely central to whether it is defined as polluted. As discussed above, many participants considered menstrual waste's correct "place" to be the bathroom (toilet). I would argue, however, that the infrastructural misrecognition of menstruants' need to dispose of their products communicates that menstrual waste does not have an assigned standardized place. This effectively positions menstrual waste as "out of place" even in the bathroom. Although the domestic bathroom is arguably one of the most private and intimate spaces in everyday life, this observation suggests that menstruation and menstruants do not really belong there, which highlights that pollution may emerge in the absence of explicit pollution beliefs. In the typical bathroom, without any easy means of disposing of menstruation, the waste emerges as "matter out of place" in relation to how the room is furnished and how its appliances are constructed. Instead of being expressed through strong feelings of

shame or disgust, here menstrual waste becomes polluted through taken-for-granted, built-in standards that took shape long ago. Looking back at the history of the modern (Swedish, British, American) bathroom and the facilities in them, it is clear that they once took shape in relation to the polluted nature of menstruation (see Kira 1976; Greed 2010, 2016, 2019). Menstruators' needs have been historically disregarded and the architectural and engineering standards established in the 1960s and 70s communicated loudly, and still do today, that menstruants have no place in bathrooms.

## Resisting concealment of menstrual waste

In the above analysis, I explored descriptions by pad users that reiterated or reproduced the imperatives of concealment that I interpreted as being inscribed into the pad. Several respondents, however, described relating to the imperative in other ways. While the imperative of concealment was overtly present, it was also questioned, resisted or challenged in some way and to some extent.

Nora, who normally used the kitchen bin for disposal in domestic settings, said that it – meaning the concealment imperative – became “so very apparent” when she’d been to a party and had to dispose of her used pad in a crowded kitchen. Nora described how she had worked to resist by thinking “now I bloody won’t, now I won’t put it in my pocket or something ... I will hold it in my hand and dispose of it.” She described how she, at that moment, became very aware of herself and that, in such situations, “one is more prone to push it a little further down in the garbage bin perhaps.” At home, Nora continued, she just threw it in the bin. It was still concealed, however, as it was rolled in toilet paper, which, she remarked in the interview, “felt a little odd” when she thought about it. Throughout the interview, Nora was increasingly surprised to realize how many things she did in practices of menstrual disposal that conflicted with her wider belief systems. For example, when she started describing her routine of rolling her pad she started to laugh. She seemed to realize as she spoke that she actually thought it unnecessary and environmentally problematic because it “takes a lot of paper” when she uses paper and using the plastic wrapper meant throwing plastic in the garbage instead of recycling it. She described rolling up the pad as “odd” (*konstigt*), because she was a person who was “doing lots of different recycling” and thought it was “really unnecessary” because she was the only one who saw her garbage.

I suggest that Nora's surprise in realizing these contradictions reveals that she had not thought about them prior to participating in the study. She later added that she thought the routine of rolling practical to maintain because there were other situations, like at work, where she did think it was important to conceal her menstrual waste. This demonstrates that routines – being things that are done without thinking about them – need to work in all settings, both in those where one regards menstrual waste more neutrally – like perhaps one's own home – and in those where one thinks such waste might be regarded as more polluted. Nora negotiated the concealment imperative by resisting it (carrying it openly at the party) and by questioning it during the interview (calling it odd, laughing at contradictions). These resistances denaturalize the naturalized routine and open it up for critique and questioning: Do I have to do this? Why do I do this? How does this relate to other ideas (imperatives) that I live by?

Others were more direct in their confrontation of the concealment imperative. One respondent wrote that she “couldn't be bothered to take responsibility for other peoples' hang-ups and taboos anymore.” Therein she explicitly related to the notion that others might consider it imperative to conceal, but that she herself did not. The expressed tiredness (“jag orkar inte ta ansvar,” using the word “hang-ups”) signals that relating one's hygiene practices to others' feelings and ideas had previously been burdensome. Moreover, her arguing points to – and explicitly confronts and rejects – the fact that menstruation is often positioned as polluted not in the eyes of menstruants, but in the eyes of those around them.

Exactly what practices the participants considered to be resistance was remarkably varied. For example, one respondent positioned leaving the plastic wrappers of tampons visible “at the top of the bin” as “just enough of a statement.” Another respondent wrote that leaving their used products openly visible to others felt “nice and rebellious.” I argue that calling these mild acts of non-concealment *rebellious* and *a statement* hints at the strength of the concealment imperative. It is particularly noteworthy that even displaying a transparent one-inch piece of plastic wrapper in a bin was positioned as disruptive. Here, again, menstrual waste emerges as being “out of place” even in the garbage.

Moreover, these examples highlight the power inherent in these wastes. In a strict concealment regime, menstrual waste holds potentials for defiance. Although the participants whose accounts have been discussed here did not state *why* they thought it felt rebellious, I infer that

the act of leaving a used product, or its wrappings, visible was considered rebellious because it insisted on menstruation's, and by extension women's, legitimate place – in the bathroom as well as in the world. Queer scholar Cathrin Wasshede (2013, 2017) suggested that when something has been rendered abject, it has the potential to gain certain powers, i.e., powers specific to dirt, dirtiness and waste, which may provoke in even stronger ways and disrupt categorization of what and who belongs where.

One uncommonly uncensored respondent wrote of a situation in which she'd accidentally left both excrement, menstrual blood, and a used tampon in the toilet bowl. "All the bloody and poopy" contents had then been found by her boyfriend's brother, who then tried to provoke and stigmatize her for it. Although she was somewhat bothered ("jag tyckte väl inte det var jättekul"), she simply asked why he "didn't just flush?" I read that question as being formulated as a tactic of neutralization, to disarm the offender; making her boyfriend's brother's definition of her as "really disgusting" into a matter of practicalities and rational behavior instead. Relatedly, several other respondents described their views about forgetting/leaving menstrual waste in very neutral terms, calling it "no biggie" or stating that "these things happen" and that they didn't care or think anything special about it. Some described themselves reacting to forgetting to dispose with mild surprise using expressions such as "well" ("jaha"), "oopsie" ("hoppsan") or "oh I guess I forgot" ("oj glömde visst"). One respondent remarked that it had probably happened, but that they couldn't remember. Another wrote that she was more concerned about the dog eating the undisposed product than about anything else. One respondent noted that when she forgot a used pad at home, her husband just "throws it away for [her]." Read by itself, a husband throwing a pad in a bin seems a very minor thing. But compared to the narratives described above about how some people consider used menstrual products completely untouchable, it seems to be a remarkable event. While this participant did position the used pad as somehow her own waste, writing that he threw it away "for her," she also wrote neutral statements such as "[it] hasn't been a problem" for either her or her husband. Again, in relation to the rather extreme narratives of shaming and self-disgust also found in the material, the neutrality presented here is noteworthy. It is readable as acts of resistance to menstrual pollution, rendering non-concealed menstrual waste a mundane aspect of daily life instead of a catastrophe.

## As out of place in the bin

Several accounts above appear to contradict Douglas' idea that the act of disposal neutralizes the pollution (2002, 198). It seems as though menstrual waste does not become neutralized when it is thrown into the garbage bin, but instead continues to be polluted, even when it has been put "in place." Douglas suggested that an object that is rendered polluted goes through two stages: one wherein the dirty object is "recognizably out of place, a threat to good order" and vehemently unliked. At this first stage, Douglas reasoned, the object still has some kind of identity and connection to what or who it came from. This, she argued, is when people consider the dirty object dangerous or "polluting." She wrote that this is because "their identity still clings to them," which makes them obtrusive and threatening of order. Then in a second stage, when the dirty object has undergone a "long process of pulverizing, dissolving and rotting," she suggested that all identity and connection to its origin has gone, having become part of a "mass of common rubbish" (ibid., 197). Where then, in these two stages, does menstrual waste fit? I argue that the findings in this analysis challenge Douglas' ideas, because menstrual waste seems to never continue to the second stage, but remains polluted and connected to the menstruating subject. Recent waste scholarship has claimed that bins are not the end of waste's social life, but that garbage bins are rather "thresholds" or "liminal spaces" that connect private consumption (here of everyday hygiene technologies) to public waste management (Corvellec 2019, 221). Menstrual waste continues to be polluted long after it has been disposed of.

## Concluding on pad disposal

In this chapter, the de-scription of the pad was continued by focusing on its involvement in making menstrual waste into matters of dirt and pollution. Menstrual *politics of passing* (Vostral 2008), *concealment imperatives* (Wood 2020) as well as imperatives of separation emerged as inscribed into the pad. They were also reiterated and reinforced through practical and emotional dealings with the used pad, as well as through the ways in which it was related to by others. However, not all pad-using participants followed the script of concealment. Instead, many rejected or resisted the definition of menstrual waste as symbolically polluted. Others positioned failure to conceal as a neutral event rather than a social catastrophe or a statement of resistance. The level of pollution

seemed to depend greatly on cultural and personal contexts, emerging as more wrought with negative emotions in specific times of one's life (e.g., one's youth), in specific settings (e.g., at work), and in relation to specific people wherein menstrual concealment and separation imperatives were stronger. This highlights the relative nature of symbolic pollution, and shows that, within a large cultural context (such as "the West" or Sweden), there exists a multitude of simultaneous but different valuations of menstruation, which many anthropologists of menstrual culture have underlined (e.g., Buckley and Gottlieb 1988).

In participant narratives where menstrual waste was symbolically polluted, it was highly imperative to conceal the used pad from the eyes of others, and socially dangerous to fail to do so (shameful, disgusting, disrespectful). The pollution of menstrual waste also emerged as remarkably unyielding. In some narratives, there did not seem to be any moment when the waste was neutralized and just became "waste." Instead, it emerged as "out of place" both in the bin bag and in the city-wide sewage system. This is in contrast to suggestions made by Douglas, who reasoned that waste is not dangerous after it has been disposed of because then it "clearly belongs in a defined space" (2002, 198). Menstrual waste, it seems, doesn't really belong anywhere.

The waste emerged as particularly problematic in settings that did not provide the required infrastructure to dispose of the pad discretely. Just like Moffat and Pickering (2019) argued in relation to Scottish school toilets, the menstruants in this study also seem to be charged with the "double burden of 'menstrual etiquette'" (ibid., 766) – obliged to "maintain the hiddenness of menstruation while the infrastructure required for them to do this is neglected" (ibid., 772). Like Moffat and Pickering, I highlighted the substantial practical and emotional labors involved in these actions. This analysis adds to theirs by showing that infrastructural neglect transcends the public sphere and applies also to the domestic one. Bringing attention to the built and furnished environment also expands our understanding of the actors involved in the makings of menstrual pollution beliefs.

## 7. Cleaning cups – dirty objects in the margins

The menstrual cup is a reusable product typically made of silicone or rubber and constructed to collect menstrual substances internally. The cup was invented in the 1930s (patented by Leona Chalmers, see Figure 17), but it is only in recent years that it has become more widely used. Drastically different from disposables, the cup is not disposed of after it has become dirty, but is cleaned and reused, and then get dirty again. It is generally recommended that the cup be “changed” (that is, taken out, emptied, and reinserted) at least every twelve hours and it can be reused for many years.<sup>32</sup> The cup is being used by a growing number of menstruants worldwide, some of whom have been referred to as “menstrual cup evangelists” due to their vocal acclaim for the product (Persdotter 2013). Cups were the most common menstrual product among the participants, used by a little over 50 percent of survey respondents and by most interviewees. This is, however, not representative of the general public. Some reports have shown that about 20 percent of the menstruating population use cups, with greater usage among younger menstruants. The pharmacy Apotek Hjärtat has reported that, in the age group 16–29 years, about 28 percent use cups, and that the corresponding figure for the age group 30–49 years is about 18 percent (Harr 2020). A recent study of menstruating Swedes in the age group 16–21 years reported that only about 7 percent used cups (Kantar Sifo 2021). Even though the cup is not as common as disposable products, it is by far the most common reusable menstrual product in Sweden (ibid.).

This chapter explores the cup’s involvement in the makings of menstrual pollution by focusing on how the cup is made dirty (and clean). By exploring one specific cup and instructions from its manufacturer as well as interview material, survey material, and online forum-discussions on cup-cleaning, I try to tease out how the cup and the

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32. Some companies say 1–2 years (e.g., Lunette), others say up to 10 years, <https://se.lunette.com/pages/grunderna-i-koppanvandandet>, downloaded 31 July 2021.

menstrual substance emerge as dirty and polluted in concrete everyday practices. Douglas would likely describe them as “purification rituals.” This chapter relates to the next chapter, where I explore how menstruation comes into being as a matter of pollution in relation to dirt on objects external to the cup.

## Inscriptions of dirt and pollution

The product analyzed was a funnel-shaped cup by the brand Lunette (see Figure 18). The company has marketed the cup as “the future of female hygiene” and stated that it gives the user a “comfortable, secure, odorless and ecological menstruation up to 12 hours straight.”<sup>33</sup> Lunette described the cup as being made of “natural medical silicone free from BPA and chemicals.” It is sold in a variety of colors (blue, purple, pink, orange, yellow, and white) and in two sizes: a smaller one for “light to normal bleeding,” which contains a maximum of 25 ml, and a larger one “for normal to heavy bleeding,” which contains a maximum of 30 ml. The cup analyzed was of the smaller size in a semi-transparent white hue. Like most cups, it had two small holes on its upper part, often referred to as “vacuum holes,” which play a role in inserting and taking out the cup.

The physical qualities of the cup carry inscriptions of dirtiness and cleanliness. I interpret its silicone water-repellent surface as telling its user of the intention that nothing should stick and as suggesting rinsing or washing of the object. The bright color and semi-transparency of the cup indicate to the user that the cup should be kept clean and see-through, so that it can retain its “hygienic” white color. Unlike Lunette’s approach, there are companies that make brown opaque cups – a significant difference in messaging, as this color does not make material dirt as clearly visible.

Furthermore, the fundamental function of the cup enacts specific kinds of dirt and pollution. Looking through Douglas’ (2002) lens, any internally worn menstrual technology is likely to be perceived as symbolically polluted. She understood bodily boundaries, and bodily openings in particular, to be vulnerable margins of the body, as well as mirrors of a wider system of order. As such, she contended, they are particularly well-guarded and protected with strong pollution beliefs and dangers. All internally worn menstrual technologies very concretely transgress the

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33. <https://se.lunette.com/pages/grunderna-i-koppanvandandet>, downloaded 31 July 2021.

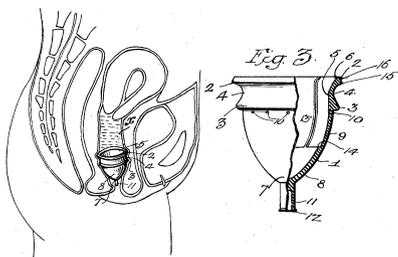


Figure 17. Images from Leona Chalmers' 1937 patent.



Figure 18. Photo of the analyzed menstrual cup. Picture taken by author 2017.

bodily boundaries twice: once at insertion and once when it is taken out. As such, they by definition challenge orders concerning what goes where: inside vs. outside, body vs. non-body. Internal menstrual technologies reside at the margins of the body and are designed to breach bodily boundaries. According to Douglas, this fact renders these objects particularly likely to be symbolically polluted. Internal menstrual technologies do not cross just any bodily boundary – but a distinctly *gendered* one, which Douglas would suggest is specifically linked to gendered systems of order.

Differently from, for example, disposable tampons, the cup transgresses bodily boundaries not merely twice but repeatedly, on numerous occasions, as it moves inside and outside the vagina. Here it is not only the reuse that is relevant. When comparing the simple routines carried out to clean other reusable objects that transgresses bodily boundaries (such as spoons and toothbrushes), the fact that the cup crosses gendered bodily boundaries specifically emerges as key to understanding how it is enacted as dirty. This makes the cup quite extraordinarily marginal (i.e., acting on the borders of an order or system). Using Douglas' reasoning, the cup is very likely to be enacted as an extraordinarily symbolically polluted object. As such, exploring how the cup is enacted as dirty and clean is potentially highly informative regarding the social and gendered orders in wider society.

Apart from challenging bodily boundaries, the basic functions of the cup also challenge dominant norms of menstrual hygiene. Compared to pads, the cup scripts a very different set of behaviors, sensations and emotions. For one thing, the cup very concretely scripts (or requires) users to

touch their vulva and vagina as well as their menstrual substance. Moreover, the cup collects instead of absorbs the menses, which allows the user to see and interact with the substance in a distinctly unabsorbed form. Previous research has suggested that the ubiquitous use of disposable products has cast menstruation as a rather abstract experience. Disposable absorbing technologies enable menstruants to distance themselves from their menses by not touching it, and seeing it primarily as part of, absorbed into, a product (see, e.g., Vostral 2008). Compared to other menstrual hygiene products, I would argue that the cup's function scripts, or enables, another – arguably more intimate – sensory experience. It suggests a set of emotions: *proscribing* (preventing) disgust and rejection of the substance, and *prescribing* (allowing, suggesting) emotions of acceptance, and possibly even fascination (explored further below).

Moreover, the cup's function of reusability goes against contemporary hegemonic ideas depicting menstrual hygiene as equated with disposability. Reusability scripts a set of concrete hygiene and cleaning practices in which the cup, instead of being disposed of, has to be handled or maintained by the user when it is not inside the vagina.

On their website, Lunette gave quite thorough instructions with both illustrations and texts on the general usage of the cup and specifically on the cleaning of the cup. Lunette instructed what users should do before, during and after they have used the cup; how they should go about cleaning it, inserting it, and taking it out. They also provided information on the dangers of improper use (Figures 19 and 20). In these instructions, the cup emerges as dirty at several moments throughout usage: *Before first use* the cup had to be washed with a non-scented soap (“[s]eriously, none of that scented crap”), and boiled in a “large pot” for twenty minutes. *Before insertion* the user had to wash the cup with Lunette's special cleaning product (the “Feelbetter Cup Cleanser”), and then carefully rinse it with water. *After taking it out* the user should “clean” and “sanitize,” first by rinsing the cup in cold and then in warm water, followed by the special cleaning product to make it “squeaky clean.” These tasks should also be carried out *after the menstrual bleeding period* was over. Lunette also stated that the user should “disinfect” the cup by either boiling it or using their “Lunette Disinfecting Cupwipes.” They also instructed the user to pay special attention to the color of the cup as well as to the vacuum holes. If the holes needed cleaning there were further instructions. Apart from the cup, users' hands also emerged as dirty in many of the steps, wherein they were instructed to repeatedly wash their hands.

I interpret the general length and detail of the cleaning instructions as communicating to the user that the cup should be considered quite significantly dirty and/or polluted. The instructions also very explicitly instruct, or script, the users to consider their cup dirty in specific – reoccurring – moments as well as in specific ways. The dirtiness of the cup was defined as both a matter of material dirt (e.g., focus on discoloring and on the “holes”) and bacterial dirt (e.g., focus on “disinfect”). Though bacteria are of course also material, I make the distinction between the two and read material dirt as that which is visible to the naked eye. I will explore both below, but focus particularly on the bacterial side, as Douglas (2002) argued that, in contemporary secular cultures, pollution beliefs have been transformed into notions of bacteria.

The instructions stated that the tools needed to facilitate cleaning included the following: immediate access to running hot and cold water, a toilet seat, two kinds of cleaning products, a large pot and a stove to boil the cup. Here, the cup *prescribes* (Akrich 1992) certain technologies as well as a certain architecture of the bathroom. For example, it requires that there be a sink in close proximity to the toilet seat: otherwise, the standard routine of rinsing the cup during “change” would not be possible. Apart from exploring scripts as directing user’s actions, I propose to expand on the filmic metaphors. The cup, I suggest, has a built-in *scenography*: stipulating what other objects and technologies are needed if one wishes to use it, and where these should be placed in relation to each other.

Generally, I interpret the instructions as communicating two things at once. On the one hand, the steps, the illustration and the easygoing casual tone of language (e.g., “scented crap,” “squeaky clean”) seem to aim to communicate that it is simple to use and clean the cup. On the other hand, the instructions also communicate a rather complicated cleaning regime that lists numerous points at which the cup – and one’s hands – need to be cleaned, as well as requiring multiple tools. Moreover, as I explore further below, the cleanliness instructions included the potentially life-threatening dangers involved in cup dirtiness. The company instructed users that cup cleanliness was simultaneously a simple routine *and* a difficult and risky endeavor. Cleaning the cup emerges as a rather complex practice, or as Douglas would put it, a complex purification ritual.

### How to use menstrual cup?

At home, at work, on the go! Lunette menstrual cups are designed to be simple and fuss-free period cups.

Simply fold and insert. Done!

**1. Wash hands** ... Wash your hands. Wash your Lunette Menstrual Cup with Feelbetter Cup Cleanser and rinse it carefully. **2. Fold + Hold** ... **3. Insert** Keep it rolled up and guide it rim first into the vagina. To check that the cup has fully opened, slide a clean finger up to the cup bottom and feel it ... **4. Wear + learn** Lunette is emptied about 2–4 times a day, can be used for up to 12 hours, also overnight. ... **5. Remove + empty** Wash your hands and relax your muscles. Grasp the bottom of the cup. To break seal, squeeze the bottom of the cup. Be sure not to pull it out by holding the stem alone. Tip contents into the toilet. Rinse & Reuse. **6. Clean + sanitize** Lunette should be cleaned before and after your cycle, and after emptying. To avoid odor and discoloration, rinse first in cold water, and then wash with hot water and Lunette Feelbetter Cup Cleanser designed for silicone cups.

*Figure 19. Instruction for using the menstrual cup from Lunette.se: <https://help.lunette.com/how-to-use-menstrual-up>, downloaded 22 January 2021.*

## The material dirtiness of cups

The Lunette instructions stated that the cup was clean when “it doesn’t have any colors, smells, or oily residue on the surface” (Figure 20), thus defining discoloring, a particular smell, and “oily residues” as dirt. Furthermore, menstrual substance in the air holes was positioned as imperative to clean away. When such material dirtiness was brought up by the research participants, they related cleaning to either the aesthetics or the functionality of the cup. Several participants described what they did to keep the cup from being discolored. They told of how they used a multitude of tools to eliminate or avoid discoloring: scrubbing with their fingers, rinsing the cup in cold water, brushing it with dedicated toothbrushes, sponges, and sodium bicarbonate. Several respondents described how they really wanted their cup to get clean, which I take to mean “look like it has never been used,” but how they have had difficulties achieving that. For instance, Daniella described a cup she had previously used as “quite difficult to keep clean,” indicating that her new cup was more easily cleaned. I infer from this that she spent more time and energy on cleaning the cup than she would have liked to do. Others described cleaning the cup as being about getting blood and mucus off it. Herein, the so-called “vacuum holes” were often brought up as especially

## Cleaning

Just like any other reusable product, your Lunette Cup should stay clean before and after insertion. “But what if I’m not at home and I need to clean my cup?” No worries. Below is a handy guide for the best way to take care of your new companion, no matter where you are.

**First time users** Check that the air holes around the top are fully open. Wash your hands and clean your cup with water and mild soap (seriously, none of that scented crap!) Boil it in a large pot for 20 minutes before you use it for the first time.

**Cleaning During Your Period** First, tip the blood into the toilet. Rinse with cold water and then wash with warm water. Use Lunette’s specially formulated Feelbetter Cup Cleanser to make it squeaky clean.

**Your period is finally over – now what?** When your period is over, disinfect your cup by either boiling your cup or using Lunette disinfecting Cupwipes. Lunette should be disinfected before and after your cycle [sic]. ...

**Cleaning when you’re out and about** The Lunette Cupwipes are handy while camping or in a gross porta potty. They eliminate most germs and enable you to use the cup safely even if water is not available. Wipes are packed separately so they are easy to carry with you.

**How Can I Clean The Air Holes?** Fill the cup with water, place your palm on it, turn it upside down, and squeeze. When the water squirts out through the air-holes, they should be instantly cleaned! Also, you can use a blunt toothpick soaked in rubbing alcohol. Or a tooth brush dedicated solely for this purpose. Do not use sharp items (like needles) on your cup because they will do more damage than good. You can also use Lunette Cupwipes by rolling the edges tight and and gently sticking them to the air holes and wiping them clean.

**How Do I Clean My Menstrual Cup In A Public Toilet?** Our Lunette Cupwipes are amazing, disinfectant, and super convenient when you don’t have access to water (aka a bathroom stall). ...

**How Do I Know If I’ve Cleaned My Lunette Menstrual Cup Well Enough?** When your Lunette is clean it doesn’t have any colors, smells, or oily residue on the surface.

**What is the best way to get rid of stains?** The best way to get rid of stains on your cup is to use the Lunette Cupwipes. They contain only water and alcohol and are a perfect match for your cup! You can also soak the cup in 3% Hydrogen peroxide or spirit vinegar. Lemon juice works well for stains too. Stains can be prevented by always rinsing the cup with cold water first!

**How Can I Clean My Cup When I Am Traveling Or Camping?** We recommend trying our handy Cupwipes when water isn’t available. They are individually packed disinfecting wipes that are compostable. Super easy when camping! ...

**Will Using A Menstrual Cup Protect Me From Having TSS?** Like with any period care product, you cannot have zero risk of TSS. But a clean, properly used menstrual cup means the chances are very small. Take good care of personal hygiene and always choose a trusted brand. Our cups are made from the highest medical grade silicone which is BPA free and contains no chemicals. With Lunette, you’re in safe hands. TSS is an infection caused by bacteria entering through wounds or mucous membrane. It is an extremely rare, potentially fatal disease occurring in those with or without a uterus, and children. TSS is connected with absorbent tampons. TSS SYMPTOMS INCLUDE: sudden high fever, sore throat, vomiting, diarrhea, dizziness, a rash resembling sunburn, muscle aches, fainting or blackouts. Early recognition and cure is vital, so if you have some of the symptoms mentioned; above, remove the menstrual cup immediately, contact your doctor and express your concerns about the possibility of TSS.

Figure 20. Lunette’s “How to Clean Menstrual Cup Guide”: <https://www.lunette.com/pages/how-to-clean>, downloaded 16 November 2021.

important to clean. To clean them, many respondents used toothbrushes of different sizes, and one described using needles and toothpicks, another used cotton swabs. One respondent stated that the reason why they thought it was so important to clean the holes was because when they were clogged the cup was more likely to leak. Some more generally just wanted to get their cup clean, but without a clear reason why. When I interviewed Daniella, her descriptions of thoroughly cleaning and brushing the cup felt spirited and enthusiastic, like she liked cleaning her cup. A kind of pleasurable cleaning.

Some described that keeping the cup clean was important, yet more or less impossible. One survey respondent wrote that “everyone else’s cup must be cleaner than mine” and added that she didn’t “understand how they go about it, if that’s the case.” In her comparison of her own dirty cup to what she believed to be others’ clean ones, it became clear that she felt her cleaning did not live up to any normative standard of cup cleanliness.

In contrast to what will be discussed below, bacteria or pathogens were not prevalent in these narratives around the material dirtiness. Instead, the dirtiness was positioned primarily as an issue of aesthetics and function. Charlotta, for example, said that the next time she needs to buy a cup she would choose a colored one instead of a transparent one, because a colored one would not get as visibly dirty. This seems to position cup cleanliness as primarily a matter of aesthetics for her. Cleaning can also be understood as an act of preserving, as something done to uphold the life and function of an object, which Ambjörnsson (2018) highlighted as a kind of pleasure in cleaning.

How then would Douglas interpret these definitions of dirt? She would of course argue that also dirt that seem void of valuations are in fact culturally charged as symbolically polluted, not merely matters of aesthetics and function. However, in comparison to bacterial dirt, which I will now turn to, material dirt seems to be much less laden with pollution beliefs and dangers.

## The bacterial dirtiness of cups

Douglas positioned contemporary secular notions of symbolic pollution as almost completely fused with knowledge of bacteria (2002, 44). Thus, the frequent mentioning of bacteria and disinfection could be interpreted as communicating quite forceful symbolic pollution of the

cup. In Lunette's instructions (Figures 19 and 20), the cup was defined as bacterially dirty both in the numerous mentions of "disinfecting" and the occasional mentioning of "germs." The word "disinfect" means "to remove bacteria," but is also related to the words "infect," or "infection." Lunette sells a number of products that are marketed as tools for removing bacteria, for example, cleaning products in the form of wipes and gels. Other manufacturers and retailers of cups also sell special microwave bags, sterilizing tablets, and antiseptic sprays for cups. The existence of such cleaning products could be interpreted as an instruction per se, which emphasizes an imperative, an authoritative command, to clean and define the cup as bacterially dirty.<sup>34</sup> Just like the instructions, these products script the user to understand the cup as dirty in bacterial terms, and as something important to get rid of. Overall, the cup emerged in the analysis as being frequently and primarily defined as bacterially dirty.

In line with Douglas' argument, dirt definitions based in bacteriology can function as a way to rationalize much more symbolic ideas. As bacteria are a form of dirt that is not visible to the naked eye, there is no clear communication when a bacterially dirty object is clean. Instead, culture can easily step in and tailor the specific meanings of the pollution and the purification rituals required to eliminate it. It has been argued that transforming symbolic dirt into bacteria is a way to make cultural or symbolic ideas about dirt appear more like scientific ones, masking our justifications for cleaning as more rational, less cultural, less ritualistic. Thus, many of the dangers defined in relation to the bacterial dirtiness of cups should be read as not only rational and scientific, but also as more symbolic.

### *TSS and the symbolics of bacterial dirt*

In most parts of the instructions, the reason why it was important to eliminate bacteria was not explicitly stated, yet it was positioned as a clear must. Still, the emphasized importance implicitly signaled some kind of danger or threat. At the very bottom of Lunette's cleaning instruction webpage, however, the dangers were made explicit by relating bacteria to

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34. These cleaning-products are of course also inscribed in turn. For example, their packaging design draws on medical "hygienic" colors such as blue and green, and some of them were odorized. Lunette described their cup-detergent as smelling of "citrus and eucalyptus." The added scent tells the user to stay attentive to the smell of their cup, and try to keep it smelling of "fresh" smells rather than anything else.

Toxic Shock Syndrome (TSS), or “tampongsjukan” (“tampon’s disease”) as it is commonly called in Swedish. TSS is a rare condition caused by a toxin that certain strains of the bacteria *Staphylococcus aureus* can produce in specific circumstances. It is lethal if not discovered in time (Folkhälsomyndigheten 2013). The syndrome was first described in the late 1970s and 80s when a large number of women were inflicted after using super-absorbent tampons of the brand Rely (by Procter & Gamble), which acted as so-called bio-catalysts to the toxin and made people ill (Vostral 2011, 2018). In the American context, at least 38 women died from tampon-related TSS in the 70s and 80s (Vostral 2018). From then on, the disease has been connected to menstruation and especially tampons, although – as Lunette stated – versions of TSS can occur in anyone, regardless of whether they use tampons or menstruates (Folkhälsomyndigheten 2013; Vostral 2018). Menstrual activists of the 1980s worked hard to regulate the content and labeling of tampons, resulting in, for example, today’s TSS warnings on tampon boxes (Bobel 2010). Today, many menstruants first hear about the risk of TSS when reading those warnings (Laird 2019). As an internally worn menstrual technology, the cup is often described as involving risks of TSS, though there is little research suggesting such a connection (ibid.).

In Lunette’s instructions on cup cleanliness, dangers related to TSS were described in a way that seem to foreground the risk of TSS, on the one hand, and downplay it, on the other. The instructions positioned TSS as a dangerous and “potentially fatal” risk involved in cup usage. But at the same time, they also suggested that the risk was quite small, stating that it was “extremely rare” and that it also “occur[ed] in those without a uterus, and [in] children” who do not menstruate. Moreover, Lunette argued that the cup is no more risky in this regard than other menstrual products: “[l]ike with any other period care product, you cannot have zero risk of TSS” (Figures 19 and 20). I interpret Lunette’s text as trying to strike a balance between communicating a risk that is somewhat tied to their product (as an internal menstrual technology) and positioning their product as safe. They did so by positioning the potential risk of TSS as being tied to cup dirtiness, stating that a “clean,” “properly used” cup and taking “good care of personal hygiene” were effective ways to reduce – or even eliminate – the risk of getting TSS.

In contrast to Lunette, no cup-using participant mentioned TSS in relation to the bacterial dirtiness of their cups. This was actually quite uncommon in the empirical material as a whole. In the survey, only two

respondents mentioned it at all, and none of them described it as a risk related to menstrual cups. One maintained instead that the danger was on one's own hands, emphasizing the importance of handwashing before changing. She went on to write that, ever since an acquaintance of theirs had passed away from TSS, she had been terrified ("livrädd") of the disease. Another respondent explicitly positioned TSS as a risk of tampons rather than cups.

Even though TSS was not brought up in relation to cup dirtiness, the participants still very often mentioned bacteria and other "germs." Thirty-two survey respondents explicitly related their descriptions of cup-cleaning to risks associated with bacteria or other microbials. Most of them argued that getting the bacteria away was important to reduce the risk of harm and discomfort to their own bodies, mentioning for example risks of "infections," "yeast infections," "itchiness" and the like. One respondent wrote that she cleaned and boiled the cup to eliminate matter that could become a "breeding ground for bacteria or the like." Moreover, even though TSS was rarely mentioned, dirty cups were still positioned by some participants as involving rather high risks for one's health. For instance, interviewee Anja portrayed not cleaning the cup as a potentially serious danger by likening it to cancer.

JOSEFIN: ... How does one do it? How do you do it?

ANJA: I just think I take it out with my hands, maybe shake a little, but usually I don't think it's usually needed, maybe in the morning. When I sleep, I take it out. I usually empty mine in the sink, uh, rinse it out, forget to wash it with soap, sometimes. I'm starting to get better at that nowadays actually ... I've always done it poorly and been thinking that "God I really should do that better," or like if I'm a bit of a hypochondriac [which makes me think that] it is always better to do it [incomprehensible], kind of.

JOSEFIN: I would think you would be really obsessive about it just considering your hypochondria.

ANJA: Mhm I'm not [laughing].

JOSEFIN: It's just my prejudice.

ANJA: It's kind of like I use snuff even though I'm really scared [*sjukt rädd*] of cancer.

I interpret Anja's statement, as well as the frequent mentioning of bacteria, and particularly the use of phrases like "bacterial growth" and "breeding ground," throughout the participant narratives as implicit links to the discourse on the risks of dangerous diseases. They suggest that some of the participants clearly positioned the dirtiness of the cup as a seriously dangerous matter.

Many participants described the cup's bacterial dirtiness as important to eliminate, but did not tie it to diseases or any other explicit explanations. For instance, one respondent stated that she thought tampons were linked to risks of TSS and pads were linked to risks of reekage, but mentioned no such risk in relation to the cup. Still, she considered "sterilization" of the cup a must. In these cases, bacteria come into being as things that are diffusively dangerous. Others explicitly resisted the notion of bacterial risks. For example, one survey respondent stated that she washed her cup for "no other reason than getting rid of old blood ... it doesn't feel like it would carry some kind of disease or bacteria or the like." Others questioned whether the cup was at all bacterially dirty, asking where these hypothetical bacteria were supposed to come from. In Karin's view, for example, the cup never interacted with anything that could contaminate it:

KARIN: ... because I think, like it has been *inside* my body, in there there are mucous membranes and menstruation. And that's what's touching it. It doesn't come in contact with feces, it does get some pee on it sometimes, but then I rinse it off, and I'm thinking: Why should it be considered so *dirty*? Where are the bacteria supposed to come from, really?

Karin here disputed the idea that the cup was bacterially dirty at all. By employing her knowledge of dangerous bacteria (as existing externally in feces and not internally in menstruation or mucous membranes), she positioned the vagina and the menstrual substance as essentially clean or unpolluted, arguing that the fact that it was worn inside of her made it cleaner than things outside of it.

According to Douglas, that which is positioned as symbolically polluted is hedged with dangers that threaten the individual responsible for transgressing set boundaries. She positioned pollution dangers in secular societies as rather mild and as simply "grave in so far as it may create social embarrassment ... contempt, ostracism, gossip." In other cultures, she reasoned, "the effects of pollution are much more wide ranging" (Douglas 2002, 92). I would argue that if one reads the risks of bacteriological dirtiness of cups as symbolic rather than actual dirt, this is a clear example of such "much more wide ranging" pollution effects. In line with Douglas, I suggest that bacteria and TSS are partly a kind of proxy for the cup's (strong) symbolic pollution. But I also want to underline that this means that the cup emerges as polluted in relation to very grave pollution dangers indeed. Far from Douglas' claim that modern societies

present mild effects of pollution, the potential punishment of a dirty cup is nothing less than death. It seems there is some order here that apparently is incredibly important to maintain. Naturally, I am not suggesting that TSS was invented by some such system of symbolic order, but that it functions as a tool for maintaining it.

*Cleaning, boiling, disinfecting cups (purification rituals)*

The practices described in the participant accounts regarding how to get rid of bacteria were generally similar to the instructions given by the company. Many described what could be called a condensed version of Lunette's instructions above. One illustrative survey reply described how the participant would "[r]inse the cup at every emptying. Clean it with special cup-cleansing product, and boil it between every menstrual period." Though not all of the participants followed the instructions to the letter, a large proportion of them did seem to be cleaning their cups in accordance with instructions such as those provided by Lunette.

Out of the cup-using survey respondents who answered questions on how they cleaned their menstrual cups (127), 80 percent stated that they boiled their cup. Most of them (67 percent) boiled it once per menstrual cycle, either before or after a menstrual period. Sixteen percent boiled it less frequently than once per cycle, and thirteen percent boiled it more frequently, mostly both before and after their menstrual period, i.e., more frequently than Lunette instructed. Like Lunette suggested, the most common method of boiling described by participants was to use a pot on the stove in the kitchen, but some instead – or as a complement – put the cup in a mug filled with hot water or in special "microwave-oven bags" and heated it in the micro. In addition to boiling the cup, some participants described using sterilizing tablets, as well as other anti-bacterial products. Some participants seemed to be very thorough in their cup cleaning. One survey respondent related the following:

[I] [r]inse it with water when it is emptied. When the period is over, I wash it with soap and water with a dedicated toothbrush. Then I sterilize it in the micro with a micro-bag that can be used 20 times. Let it dry and put in in a cloth bag. If I don't have the possibility of micro-waving the cup, I have a sterilizing spray as a temporary solution. (Survey reply to Q61.)

Others were much less detailed. For example, some only wrote that they "[t]ake it out. Empty it in the toilet. Wash with my hands in the sink," while another simply stated that they "wash with soap and water" and

some said that they only rinsed it with water. One respondent used her own urine to wash the cup from blood, and then rinsed it with water. Among those who did not describe boiling their cups, a couple stated that they thought it sufficient to let the cup dry in between menstrual periods instead of boiling it.

Several participants thought they boiled their cup too infrequently. Within the group of respondents who boiled their cup less frequently than once per menstrual period, it was quite visible that many still considered the imperative of boiling to be quite strong. Many of them reproached themselves by indicating, for example, that they “ought to” boil it more often than they did, or wrote that they “try to remember,” had the “ambition to” boil it but “often forget,” described themselves as being “lazy” or “lax,” and their behavior as “careless” (“slarvar”).<sup>35</sup> This suggests that boiling the cup was viewed as an imperative of cup cleanliness by these participants, something also communicated in Lunette’s instructions. Several participants expressed strong negative emotions about their failure to boil. For instance, interviewee Sara said that she sometimes got a “bad conscience” and “a little anxiety about it.”

SARA: Well, I [boil the cup] when I remember, but I have to say that I’m very careless [*slarvig*] with it and I can get a kind of like a little anxious sometimes, that I’m not careful enough about hygiene, but I think I have a bit like this general attitude toward hygiene, I think that, well it will probably be all right anyway. You know this about excessive washing, and such, yes.

JOSEFIN: But where does the anxiety come from then?

SARA: Well that’s probably, eh, when you read those instructions that, that, that it should be boiled between each time, and yes, with diseases, or not diseases, but bacteria and cleanliness and so, and so when I do not follow it so I can get a bad conscience, but I think it’s worked for me for so long without problems, so I think that yes, well it’s not a big problem. You know, a whole market has developed around that, but I have a laidback attitude toward it.

Sara described how she had taken a stance against what she considered “excessive washing” and the “whole industry” of hygiene. However, she expressed an ambivalence. While she described having a “laidback attitude” toward hygiene and presented a certain resistance to our culture’s hygiene ideas, she still said she had momentary bursts of negative emo-

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35. The Swedish verb “slarva” could be translated to many words in English, for example: carelessness, negligence, inattention, frivolity, and “to fribble.” According to a Swedish dictionary, “slarva” means to “behave without proper care or accuracy,” with too great hurry, or doing something in a sloppy manner.



*Figure 21. Photographs on boiling the cup. To the left: A picture provided by interviewee Maja, who said, laughing, that she boiled her cup when she remembered it, “once a month maybe.” To the right: A reenactment from a video provided by Maja where she showed how she boiled her cup in a pot on the stove, picture taken by author.*

tions, where she questioned her stance. Her negative emotions reveal that the notion of bacteriological dangers was difficult for her to completely ignore. She transversed two different ways of relating to a defined risk, sometimes disregarding it by not following the instructions, but other times feeling so bad about it that she boiled the cup anyway. This example highlights that when dirt is positioned as so dangerous that it is potentially lethal, imperatives of cleanliness are not so easily ignored, however small one might consider the risk and however much one might think the pollution is symbolic rather than microbial.

Sara also negotiated and modified the definition of the risk itself. First, she mentioned bacteria and illnesses as the overall rationale for boiling the cup. Then, she retracted the word “illnesses” and replaced it with “bacteria and cleanliness,” emphasizing that she did not think the instructions were about avoiding disease, but only about avoiding bacteria. I interpret this as a separation of bacteria and pathogen, rendering bacteria as not necessarily related to dangerous health risks but as a more harmless kind of dirt. This highlights that not all bacterial dirt is necessarily equal to dangerous pollution. Instead, it seems bacteria were sometimes “just” bacteria. This way of understanding the bacterial dirtiness of cups is a kind of resistance to menstrual pollution ideas. The

separation positions the danger outside of menstruation and menstruants, redirecting it toward a dangerous outsider: the bacterium. While this may potentially function to de-pollute menstruation, as long as the bacterial dirt definition results in dangerous dirt definitions and complex purification rituals, menstruation is nevertheless treated as polluted in practice.

Even if some reproached themselves for not following the instructions, many also often described their relation to the instructions in somewhat defiant terms. For example, one respondent wrote that “one ought to” boil it but that she couldn’t be “bothered.” I also interpret phrases such as “lazy” or “careless” as signaling that they somewhat resisted what they understood as a must. Resisting the instructions on the grounds that one “can’t be bothered” is a stark contrast to the idea that the bacterial dirtiness of the cup might seriously endanger one’s health. Furthermore, even though these specific participants seem to have considered boiling important, despite not doing it often, most of those who did not boil did not seem inconvenienced by this. I read such accounts as challenging or diminishing the idea that the cup is dangerously dirty, meaning that they challenge the notion that the cup – and by extension menstruation – is gravely symbolically polluted. They do not agree with the idea that the cup could be dangerously dirty.

## The symbolic dirtiness of cups, on boiling cups in pasta pots

The practices of boiling or otherwise disinfecting the cup are different than many other hygiene practices surrounding menstruation, in that they typically take place in the kitchen instead of in the bathroom. Moreover, they also activate objects and technologies that are otherwise typically used for food, such as pasta pots, microwave ovens, and dishwashers. Douglas’ framing of dirt as spatially relative applies very concretely here (hygiene-matters in the bathroom, food-matters in the kitchen). The mere presence of a menstrual hygiene technology in the kitchen is likely to cause pollution reactions, as it violates classifications concerning what goes where. Previous studies have also shown that menstrual cup users have felt disgust about boiling the cup in a pot that is used for cooking (Coe-Björnsell and Jansson 2015; Jivenius 2020). Furthermore, the kitchen is a less private space, which means that other people, like members of the household, may be brought into the practice. Another study claimed

that many feel a need for more privacy when they boil their cup (van Eijk et al. 2019).

In this section, I will not focus so much on the cup, but more on the objects that it comes into contact with, exploring discussions on the vessels used for boiling or “disinfecting.” Specifically, I will explore how those discussions center on a kind of dirtiness that is very explicitly symbolic. I base this section on an analysis of discussion threads from familjeliv.se and bukefalos.se, where boiling the cup in a pot that is used also for boiling food was discussed as a potential problem. I also analyze some survey replies revolving around the issue.

In the forum discussions, the discussants’ attitudes varied quite drastically: some were very disgusted at the thought of using a regular pot for the purpose and others were not bothered by it at all. Among the discussants who thought it was alright to use a regular pot, some justified it by arguing that the cup was “well cleaned before boiling,” which I take to mean that there were no visible remnants left – that such narratives positioned the cup as materially dirty rather than symbolically polluted. Others focused on the bacterial dirtiness and justified using a regular pot because when boiling “all the bacteria die,” which they argued meant that “there is absolutely no risk that there is anything left in the pot after you’ve boiled the cup,” stating that if there were any bacteria left, “then there wouldn’t be any reason for boiling it.” In that argument, bacterial dirt emerges as the pollutant, and when the bacteria are thought to be eliminated both the cup and the pot are considered clean. I want to underline here that defining the cup’s dirtiness as bacterial renders invisible dirt possible to clean away.

Those who found using a regular pot unthinkable did not define the dirt as bacterial. Instead, they positioned it, more or less explicitly, as symbolically polluted. This was evident through expressions of varying degrees of disgust. One posted that “it did however not feel so very fresh” to boil the cup in a regular pot. Another stated that they knew that “potential bacteria are killed” by boiling, but still thought it was disgusting (“lik förbannat äckligt”). In these statements, the dirtiness of the pot clearly seemed as something other, or more, than bacterial. Using Douglas’ terms, for this discussant the pot can be understood as being symbolically dirty. The discussant positioned the pot as dirty, not because it was dirty in a scientific sense (“kills bacteria”), but because they *felt* that the pot had been polluted (“disgusting”).

THREAD TITLE: Menstrual cup in pasta pot

THREAD STARTER: Hello there! How can you consider boiling the menstrual cup in the same pot as the pasta? Grateful for answers ...

REPLY 1: I do that. Not together with the pasta, but in the same saucepan. The cup is well cleaned before boiling.

REPLY 2: Just saying eww how disgusting – yes I know that potential bacteria are killed during boiling, but it is still bloody disgusting [*lik [sic] för bannat äckligt*]. ... Will ask my daughter what she boils her menstrual cup in – I may well have to stick to only drinking coffee with her [*får väl hålla mig till att dricka kaffe hos henne*]. (From familjeliv.se 2015.)

THREAD TITLE: Menstrual cup, give me advice!

THREAD STARTER: I just got my period back after giving birth and my mucous membranes can't handle tampons right now, so I've started thinking about menstrual cups. However, I have some thoughts.

It should be boiled after each period. However, it doesn't really feel all that fresh to cook it in an ordinary pot in the kitchen. How do others do it? Should it boil for a long time? Can you put it in a plastic jar with hot water and run it in the microwave oven for a while? (From familjeliv.se 2012.)

Here, it did not matter whether the cup or the pot was materially or bacterially clean, instead the pot was positioned as impossible to use for other things after having been used to boil a cup. The vessel emerges here as absolutely and irreparably polluted, which makes visible the considerable strength of the cup's pollution.

In the examples where the pot emerged as abject, there is a chain of contaminations happening; the polluted cup contaminates the pot, and the pot is then thought to contaminate whatever foods will be cooked in it later. In these cases, it is clear that the cup and the vessel it is boiled in emerge as polluted not because they are materially or bacterially dirty, but simply because they have touched menstruation. For some, it did not matter whether the actual material or bacteria had been removed (it still felt disgusting). Douglas underlined that contagion is often inherent in dirt and that something thought to be polluted is often considered a contaminant. As such, that which touches the symbolically polluted becomes polluted in turn.

More so than elsewhere in the material on the dirtiness of cups, the symbolic dimensions of the dirt were brought to the fore in these discussions. On another forum where a similar question was discussed, one discussant posted that it “*feels* sickeningly unhygienic” and added “but

that may be more of a feeling than that it actually *is* unhygienic.” In this example, the view that the cup is polluted and contagious is first presented and then questioned.

The vessel also emerged as an area of conflict in social relations. In one forum thread, the thread starter was furious with her husband for refusing to let her boil her cup in a regular pot. She ended with a sentence that was telling of how unreasonable she considered it:

To boil old rancid venison, whole fish with intestines and everything, or for that matter chicken eggs which also “come out of there” is apparently fine. But not his wife’s menstrual cup. Sigh! (From familjeliv.se 2013.)

Others were more toned down. For example, someone posted that their partner “wouldn’t appreciate it” if they used a regular pot; one survey respondent noted that they had tried to boil the cup when they were home alone and “clean the pot extra carefully afterwards.” Interviewee Maja described her partner as “unbothered by it,” but thought that his kids might think it was a little disgusting and added that “they don’t have to be witnesses to this.”

The narratives that positioned the cup as heavily symbolically polluted suggest a potential fundamental “failure” of the technology (see Akrich 1992): one in which the user cannot believe it as possible to get the object clean enough for reuse. The inscribed ideal cup user surfaces as one who considers the cup cleanable. As Douglas has pointed out, the fact that bacteria are invisible to the naked eye makes it easy for bacterial definitions of dirt to take the place of more symbolic ones. In that light, the company’s detailed cleaning instructions for bacterial elimination appear as incantations, as statements that craft the symbolic pollution of the cup into bacterial pollution – which can be eliminated.

## Concluding on cleaning cups

This chapter explored menstrual pollution beliefs by focusing on how the cup was defined and practiced into a matter of dirt. The cup emerged as repeatedly transgressing spatial (kitchen/bathroom) and gendered bodily boundaries (inside/outside), which positioned it as an extraordinarily transgressive and marginal object, and as such extraordinarily charged with symbolic pollution. The empirical material revealed numerous practices and tools for eliminating the cup’s dirtiness.

The cup's bacterial dirtiness was generally positioned as a highly dangerous – potentially even lethal – kind of dirt. I would argue that the perceived dangers and risks surrounding menstrual cups are not based solely on rational scientific insights, but are to a considerable extent also social and symbolic. By considering bacterial dirt definitions as also proxies for symbolic pollution, there is an opportunity for expanding our understanding of what is going on in cup cleaning. Through that lens, the lengthy, complex and resource-intensive cleaning instructions and practices emerge as complex and resource-intensive purification rituals meant to render an extraordinarily symbolically polluted object clean.

Like with pads, the ways in which the cup is enacted as dirty are linked to the telos of the technology. While disposable pads were argued to enact dirt that increase the number of sold products, reusable cups enact dirt that increase the number of people who want to buy a cup at all. Therein, I would argue that the company (or companies) utilizes bacteriological definitions of dirt to attract or convince new consumers. By crafting the cup as bacterially dirty, they provide a rationalization of symbolic dirt, thus replacing “irrational” disgust, and make the object understandable as dirty such that it can be purified (disinfected, sterilized, boiled) and then reused.

The participants challenged the symbolic pollution of the cup and menstruation in several ways. In my view, the participants who did not follow the cleaning instructions, and especially those who reported that they were not bothered about following them, were challenging the notion of the cup as dangerously dirty, which meant they were also challenging the notion of the cup and/or menstruation as symbolically polluted. Therein, cleaning the cup by just rinsing it, or peeing on it, emerged as an act of resistance.

Douglas argued that female genital boundaries are particularly strictly guarded and controlled in settings where male dominance is prevalent but challenged. She claimed that, in such societies, so-called “sex pollution” is particularly “likely to flourish” (Douglas 2002, 176), more than in cultures with a clearer gendered hierarchy. What, in light of these theoretical statements, could be said of the empirical case at hand? What system does the remarkably highly symbolic dirtiness of the cup tell of? What wider gendered orders are revealed by the complex, resource-intensive purification rituals? It seems to me that Douglas would suggest that they clearly tell of a system wherein patriarchal hierarchies are challenged yet persistent. This case seems to communicate that Swedish

gender equality has come far, while gendered orders obviously remain. I read both the explicit narratives of symbolic pollution (irrational disgust) as well as the grave medical dangers attached to the cup as signaling that Swedish (Western) culture has powerful pollution beliefs regarding menstruation and female genitalia. Through enacting the cup as dirty to the extent that it might even be fatal, the cleaning practices are rendered so important, or imperative, that they construct women and other menstruants as subjects bounded, in practice, to dirt management and to difficult, laborious – and to some extent even unnecessary – purification rituals. In researching these neglected and devalued aspects of life (see Puig de la Bellacasa 2017), gendered orders and hierarchies that might easily be unrecognized or dismissed are made visible, opened up for the world to see and react to – and potentially even transform.

## 8. Changing cups – cleaning menstrual mess

The practice of changing is an important and frequent part of menstruality. The term “change” has been established in relation to menstrual technologies like pads and tampons and describes the process of replacing one piece of technology with another (e.g., change a used pad to a new one). Because the cup is reusable, changing the cup is a little different and instead is a process of taking out – emptying – washing – and re-inserting it. This chapter is a continuation of the previous one and elaborates on the de-scription of the cup’s involvement in menstrual dirt and pollution. In contrast to the last chapter, this one focuses on dirt outside of the cup itself during the cup-changing. This dirt appears on objects, surfaces and appliances around the room where the cup is changed. I have chosen to call it *mess*. In Swedish it would be “stök” or “stökighet.” I use this term to designate and discuss this particular dirt as something other than the dirt explored previously.

In a different way than in the previous analytical chapters, this one explores what happens when the menstrual substance per se is enacted as dirty – “by itself” (even if nothing is ever alone, see Mol 2002). Here, the menses is not merged with the technology as it has been in previous chapters: it is not absorbed by it (like by the pad), and it does not appear on it (like with the cup). The dirt explored here is instead separated from the technological object. This chapter also adds to the previous ones by focusing on another kind of elimination practice (or purification ritual), namely that of cleaning or tidying up (in Swedish: “städa”). Cleaning emerged in the empirical analysis as an integral part of menstrual hygiene practices. This exploration of cleaning adds to previous studies of personal hygiene (e.g., Smith 2008) and cleaning (e.g., Ambjörnsson 2018) by underlining that the two overlap in practice: taking care of personal bodily fluids also involves cleaning objects quite distant from the body.

Moreover, cleaning bathrooms (toilets) is a gendered everyday practice, generally regarded as a practice that women spend more time on

than men do (Linn 1985; Hirdman 2007; Ambjörnsson 2018). The specifics of cleaning bathrooms (toilets) have been explored by very few. Gudrun Linn's doctoral thesis from 1985 – *Badrum och städning: Hur skall badrum byggas för att underlätta städningen?* – is the one exception I have found. Her research focused on how to design bathrooms that were more easily cleaned, a clear improvement in quality of life for anyone who spends a lot of time cleaning them. Though mocked at publication, Gudrun Linn's work was later acclaimed for being instrumental in making toilets more easily cleanable (Lund 2013). Due to the gendered nature of bathroom cleaning, any attempts at making it easier are essentially feminist interventions. However, Linn did not discuss cleaning of menstruation. Thus, exploring menstrual cleaning may provide insight into how that division of labor is maintained, and may further our understanding of why it is that women seem to spend more time than men in public – and perhaps also domestic – bathrooms (Baillie et al. 2009; Molotch and Norén 2010).

This chapter ends with an exploration of how cup change may engender experiences wherein the mess emerges as something other than dirt or pollution.

## The ideal neat change

There was no explicit mentioning of messiness or cleaning in Lunette's instructions on how to use the cup. Instead, they focused primarily – as I explored in the previous chapter – on the dirtiness and cleaning of the technology itself. I interpret this as informative regarding how Lunette scripts the ideal act of changing cups as a non-messy, quick and easy action. I also read the instructions as have been formulated with the implicit goal of avoiding messiness. Lunette, for example, advised the user to “relax [their] muscles” before taking out the cup, to “grasp the bottom of the cup” and “break seal” by “squeeze[ing] the bottom of the cup” and cautioned the user to “[b]e sure not to pull it out by holding the stem alone” (Figure 19). Here, Lunette emphasized the importance of removing the vacuum before taking out the cup. Participant narratives communicated that taking out the cup without removing the vacuum could result in physical pain (as it creates a pulling sensation onto one's cervix) and splashing “blood everywhere.” Moreover, Lunette instructed that one should empty the contents into the toilet, not the sink. I read this instruction as being aimed at avoiding the risk of making a mess when carrying

or moving the full cup from the toilet seat. As will be explored shortly, the distance from the toilet seat to the sink was brought up by several participants as a space that often got dirty.

In the previous chapter, the inscribed ideal cup user emerged as one who considered the cup reusable. When I focused instead on external objectual dirt or mess, other aspects of the ideal user emerged. For example, the size of the cup as well as instructions related to frequency of changing delineate an ideal user with a certain (“normal”) menstrual flow. Lunette stated that the cup does not need to be emptied more than two, three or four times a day and that the users do not need to worry about leakages as long as they do not “totally forget about the cup.”<sup>36</sup> This statement shows a normative timeframe for how often the cup should, ideally, be emptied. It scripts a standard user and renders non-standard those who have to change more often. This is relevant to the makings of dirt, as a full cup entails the risk of overflowing and leaking as well as of producing dirt in the form of stains and odor. It also means that the cup scripts the occurrence of change in settings that have the prescribed scenography.

Martina, one of the older interviewees who had tried a lot of different menstrual hygiene technologies, had an ambivalent relationship to her cup. She really liked it when it “was in place” inside her, but contrary to what she perceived to be the general view, she considered changing it a really inconvenient ordeal, describing it as “very difficult” (“väldigt meckigt”), “very cumbersome” (“väldigt bökigt”), and “slimy and slippery.” She described her experience in relation to the perceived idea of a simple, un-messy cup-changing and said that “to me it’s not at all like ‘oh it’s so simple,’ and like ‘there are no problems’ and such, like it says in the ads.” Martina had quite a heavy flow, which meant she had to change her cup often. During some parts of her menstrual period, she had to do it about once an hour, a striking difference from the up to 12-hour interval described in Lunette’s instructions. When she had to change, the changing often involved getting lots of menses on her hands and on the floor. Martina said that she preferred to stay at home on days when she bled more. At home she could manage the menstrual flow in a simpler way because she knew she had everything she needed close at hand.

If Martina left the house during her heavier days, despite her careful planning and preparations, it could still result in difficult situations. She

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36. <https://se.lunette.com/pages/fragor-svar>, downloaded 16 February 2022.

told of one particular instance when she was out on a work assignment and her cup suddenly overflowed:

MARTINA: Aaah but I had a day like that when I was away at a job last fall and [there was] just a little shitty toilet too, sort of [laughing] and I feel like I can't. I can't tell him, no that didn't work [*det funkade inte*]. I can't say it! And I just, it just flooded out, and I just felt aaah and so in the middle of the conversation I felt like: "Now I *really actually* [*egentligen*] need to go to the toilet [to empty the cup]" ... And I think of his sofa that I sat in, and like ... I wonder ... There, in that situation I was not at all so tough and open, but there I became very like "I *can't* say anything in the middle of this conversation," and "I have to seem professional and keep the focus on digital marketing now" [both laugh]. So I did, and then when we took a break, then I had to sort it all out as best I could on his little toilet with dim lighting ... Above all, the focus was on emptying the menstrual cup, and making sure that I rinsed the sink clean ... and that there were no visible splashes anywhere and such.

She recalled how, at the moment she realized she needed to change the cup, she had thought it would be unprofessional to say something. When there was at last a possibility to go and empty the cup and "sort it out as best as [she] could," she found herself in a dimly lit, tiny bathroom in a hurry to clean away menstrual mess from the sink and toilet.

This narrative highlights how the social setting impacts the practicalities of menstrual hygiene management and menstrual dirt. It shows how a social and material setting very concretely causes menstruation to become a matter of dirt. Had Martina felt in that situation that it was possible to instantly attend to her bodily matters, there would have been less mess to take care of. In addition, had the toilet (bathroom) been bigger and better lit, it would have been easier to clean it. Here, the professional setting, the client, the cup, her heavy menstrual flow, the scrawny little toilet, the bad lighting all coalesced to make Martina's menstruation into a matter of rather difficult dirt – into something that took some effort to eliminate. Moreover, Martina's general preference for staying at home during the heavy flow days of her menstrual period suggests that the example above was not an anomaly, but that most toilets (bathrooms) do not meet her needs. Just like Moffat and Pickering (2019) suggested in relation to non-standardization of menstrual disposal, here there is arguably also an infrastructural neglect of menstruation, in that it is not easy to attend to one's menstruation in the (concealed, discrete) way one often wants any place other than one's own domestic setting. Difficult dirt emerges here as a signal of what has and what has not been taken into account when designing the everyday features and functions of the toilet (bathroom).

I read the mess and the difficulty that Martina described as what Akrich and Latour called a “failure” of the technology, which can be utilized to “reveal the inner workings” (1992, 260) of technologies. The mess communicates that the ideal user envisioned by the cup designers has a specific menstrual flow that is much less than Martina’s. I have elsewhere called such constructions of the ideal menstruant the *menstrunormate* (Persdotter 2020), which is a fictitious but ever-present normative idea about the normal, average and “right” menstruant. The *normate* is a concept developed in disability studies to make visible the ideal normative subject position and embodiment (Garland-Thomson 1997). Alternative cup designers have also elucidated that the typical, standard cup is made with a user in mind who has a certain body also in ways that transcend menstruation. The Keela cup, for example, was developed to make taking it out (including removal of the vacuum) simpler for menstruants with non-normative functions of the hands and joints (Hartman Adamé 2017).<sup>37</sup> This innovation further highlights how these technologies cause menstruation to come into being as a matter of dirt differently in dissimilar bodies – how the cup, when in interaction with bodies that are other than the inscribed ideal, can generate a menstruation that entails a messier, more laborious and dirtier experience.

To experience cup change as messy was not only time-consuming or laborious for Martina, it also evoked negative emotions. I perceived her as being quite unhappy about the fact that her cup-changing was such a messy endeavor, when she thought everyone else’s was neat. However, Martina was far from the only one who reported that cup-changing was messy.

## The messy change

Granted that the kind of dirt I call “mess” also occurs when using other menstrual hygiene products, the cup emerged in the analysis as significantly messier than other products. I noted this during the first round of interviews and explored it further in the survey and the interviews that followed. Some of the first interviewees talked about how the cup required more cleaning, particularly because it caused the menstrual substance to stick to the toilet bowl. This struck me as interesting because the cup is so often portrayed as an easy-to-use technology. It is marketed

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37. The Keela cup was acquired by another company and renamed the Flex cup.

with accounts of how infrequently it has to be “changed” and acclaimed for its environmental benefits, in that it does not produce waste.

I compared replies to a survey question that was about menstrual mess in the bathroom (Q49<sup>38</sup>) between respondents who used cups (227) with those who did not (217).<sup>39</sup> Cup users much more often mentioned objects and surfaces being at risk of getting dirty than non-cup users did. The bathroom carpet, the floor, as well as the toilet were each mentioned about twice as many times by cup users compared to non-users. The sink was mentioned 66 times by cup users compared to 7 times by non-cup users, and cup users were alone in mentioning both tiling and the toilet lid. Both groups mentioned the toilet seat, the inside of the toilet, as well as the wall, about equally often. However, twice as many non-cup users reported that changing was not a messy practice at all. Those who did not use a menstrual cup mentioned clothes more frequently than cup users did, which may suggest that cups do not often result in stains on clothes. When it came to cleaning tools mentioned, both “water” and “toilet brush” were mentioned about twice as often by menstrual cup users, and “toilet paper” and “flushing” were more common in that group. While both groups mentioned words close to “stains” (“fläckar”) equally often, menstrual cup users mentioned “blood traces,” “leakage,” “splashing” and “spilling” more often than non-cup users did (for a detailed overview of the comparison, see Appendix I). In my interpretation, these results indicate that changing menstrual cups engenders messiness more often than does changing other menstrual hygiene products. This highlights the fact that different menstrual technologies make dirt in different ways.

The relatively high level of mess can be said to be inscribed into the physical qualities of the cup; because it does not absorb the menstrual substance (like tampons, pads, and sponges do), it is inherently more prone to making menses drip, splash and stain. More so than when contained in rolled pads (or tampons), the cup actualizes other objects and technologies in the room where it is changed. With the cup, the menses directly interact with a multitude of objects and technologies. Even if the (toilet) bathroom is not the only room in which menstrual products are changed, it is very commonly used for this purpose. Among the survey respondents, almost 90 percent noted that they preferred changing

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38. Q49. Är det någon speciell plats eller möbel på toa/i badrummet som det ofta blir mensfläckar på? I så fall: Vad gör du åt dem?

39. Many of the respondents used combinations of technologies.

in their own private (toilet) bathroom. The bathroom, and the domestic one in particular, is a key menstrual territory.

Among cup users, different aspects of changing were tied to different parts of the bathroom. They described how one had to be careful not to drip blood on the floor when the cup was moved from toilet to sink and that, if one was too hasty or did not eliminate the vacuum properly when taking it out, one risked splashing blood on the wall or the inside of the toilet, or as some put it, one might get “blood everywhere.” The cup users described two areas as particularly messy: the toilet appliance and the floor between the toilet seat and sink. As discussed in the previous chapter, this shows how the cup scripts a specific scenography. Narratives around those two areas will be explored in more depth below.

### *Bloody toilets*

The toilet appliance was thus one of the more frequently mentioned objects that got messy during cup change. Many cup users claimed that it had to be thoroughly checked and cleaned before leaving the bathroom, or that preemptive measures had to be taken to avoid getting it dirty in the first place. The appliance was often mentioned in general terms, but many respondents also specified particular areas that got dirty, such as the seating ring, the edges of the bowl, the bottom of the bowl, and the toilet lid.

One theme in the early interviews was a focus on how menstrual blood sometimes stuck at the bottom of the toilet bowl. Interviewee Agnes was particularly fascinated by this. For instance, she exclaimed that “sometimes the menses can be so *strong* that it stays” even after one has flushed, and she found it surprising that a fluid could stick so stubbornly to a surface like porcelain. Daniella similarly wondered how and why the menstrual substance stuck to the porcelain. She described scrubbing with the toilet brush and that she would sometimes place toilet paper in the toilet bowl before she emptied the cup as a preemptive measure.

DANIELLA: Yes, because it's not like what they show in the advertisements when they pour, because that looks like a completely normal fluid, like water. But this is stringier, well it can be, right? ... Sometimes when I take [the cup] out when I sit on the toilet, a string [of menses] can remain hanging [*kan hänga kvar*] like a string, and then you sit there and try to get it off [*få loss den*] but that doesn't work 'cos it's got that density that one has to like actively wipe it off [laughing a little]. Really, sometimes when I pour it out it turns into a lump in the water! It's

not like it dissolves like any other type of liquid ... You know, it can [laughing] even like really get *stuck* in the toilet and just “Aaaah!” [One] kind of like [has] to stand there and brush to get rid of it [laughing]. So I can kind of put paper [in the toilet bowl] sometimes so I can pour [the menses] on it, and then it just flushes down with the paper [laughing].

One survey question (Q50) was designed with Agnes’ and Daniela’s accounts in mind and dealt specifically with menstrual blood sticking at the bottom of the toilet bowl. The replies to the survey question varied greatly. Some respondents had never experienced the situation, others were not bothered about the mess as they thought it was easily cleaned away by flushing and using a toilet brush, and two wrote that they did not consider leaving some menses in the toilet bowl problematic in any way. When the participants were not bothered, menstrual blood does not emerge as polluted when in the toilet. Instead, one could reason that these participants considered it to be the correct place for menstruation. However, several respondents described the blood sticking to the bowl as a more problematic feature of their everyday menstrual life, writing that it would be embarrassing if it were to happen in someone else’s home, at work or in school. They had experienced situations when they had “flushed furiously” to get the toilet clean. This demonstrates that the available appliances fail to effectively assist menstruants in eliminating menstrual mess, which might suggest that they were designed with a non-menstruating user in mind.

Some respondents remarked that they cleaned away the blood at the bottom of the toilet bowl not because they themselves were bothered by it, but because they thought it was respectful toward others, as “people think it’s unpleasant” or “disgusting” or it might scare them. As discussed in previous chapters, this is an example of how a matter of menstruality comes into being as symbolically polluted through imaginings of other people’s pollution beliefs rather than the menstruants’ own. In practice, however, I want to stress that the matter *is* enacted as symbolically polluted. Even if the menstruants themselves do not consider it as such, they still carry out acts – or rituals if you will – of purification.

Another respondent wrote that she would often choose to leave the toilet bowl a little “bloody” instead of flushing multiple times to avoid wasting water. She noted that this was something she did only when she did not have guests. I read this as a negotiation, wherein the pollution dangers of the menstrual mess in the toilet were weighed against the costs in natural resources.

Contrastingly, some respondents described relating the blood in the toilet to other people, but actively disregarded their potential dismay. One described using the blood in the bowl as a weapon of retribution if someone had been “teasing” them or if they were in “devil mode.” Another described it as an act of rebellion, arguing that they did indeed want people, particularly men, to get a little disgusted or scared, and that by leaving the blood behind they wanted to remind people that menstruation exists.

At home, my mother asked me to double-check that there were no slimy menstrual threads left in the sink when I emptied the menstrual cup. I understand that. In my own home, I don't think it's important to be careful like that, but if there are blood stains on the toilet seat, I wipe them off. In public environments, I'm sometimes a rebel: if I've emptied the menstrual cup in the toilet and if the blood has splashed down the toilet and if it remains red even after flushing, then I sometimes let the blood stay there!! I want people (especially men) to come in and be a little disgusted/scared, and I want them to be reminded that menstruation exists! Lol! I'm proud of myself when I do that. (Survey reply to Q48.)

The participant quoted here explicitly referred to her actions as driven by resistance to the menstrual concealment imperative, and a will to show that “menses do exist.” Resisting imperatives of menstrual cleanliness and concealment was therein explicitly positioned as having disruptive potentials, as a tool of activism and resistance that let menstruation take place in the world instead of being cleaned away. Similarly, in a recently designed research project on menstrual infrastructure, some activists suggested developing fake blood “ampuls” that one could drop in public toilets, fabricating menstrual mess in toilets as an act of menstrual activism and challenging the mainstream menstrual discourse of concealment (Fox et al. 2018). I read these examples of resistance as indicating the strength of the menstrual concealment imperative and of the symbolic pollution of menstrual mess, even when such messes are in toilets. These acts also exemplify how resistance to menstrual pollution ideas can be carried out by refusing to clean.

Some participants did not resist all cleaning, but resisted cleaning more than what was provided for by the standard functions of the toilet. The participant above described how she would first flush the toilet and how, if the blood had not been washed away, she would consider that an act of defiance. When the technology did not adequately assist her in cleaning, she decided to resist the menstrual concealment imperative. Here, the toilet's failure to effectively assist in eliminating dirt provided

an opportunity for resistance. Choosing not to clean was in this case a reaction, not only against the menstrual concealment imperative, but also to the faults of the standard facilities provided. This is one more example of how dirt and resistance to eliminating it are enacted in interactions between many different actors (here: the blood, toilet porcelain, flush function, etc.).

### *Bloody floors*

Another area the participants described as often getting dirty when changing cups was the space between the toilet seat and the sink. According to the cup's instructions, one's hands should be washed several times and the cup should be washed during the changing (Figures 19 and 20). This reveals how the technology prescribes a certain scenography, in this case how far apart the toilet seat and sink should be. This inscribed scenography was highly visible in participant narratives. Many reported experiences from bathrooms (toilets) where the sink was placed far away from the toilet seat, which meant there was a great risk of staining the floor or the carpet between the two. Maja described changing her cup at her current home toilet where her sink and toilet were quite far apart. She told of how she had to hold the cup in a certain way, carry it carefully, taking careful steps (with her pants down I presume) toward the sink, hoping that she wouldn't stain her clothes or the floor:

MAJA: well, it's actually, uh it's actually a bit awkward because the toilet is, I usually sit on the toilet and pull out the menstrual cup ... So you have to hold it, I feel like I have to keep it in an upright position so that it doesn't drop on the floor when I transfer it to the sink. And the sink is placed so that I have to stand up and walk a few steps from the toilet to the sink. Then I have like a little, that, if it drips, if I have some nice pants on, I hope it doesn't drip on the pants. So you hold it like a little [incomprehensible] [laughing] and transfer the menstrual cup to the sink ...

Maja's difficulties in changing her cup without making a mess reveal the prescribed scenography of the cup; there is a taken-for-granted, short distance between toilet and sink. Her example shows that not having the prescribed scenography makes the changing routine difficult and puts the menstruant at risk of making more things dirty. Some described how they stuck a wad of paper to their vaginal opening when they walked the distance from toilet seat to sink as a means to avoid dripping on floors or clothing. These accounts demonstrate how other technologies (the toilet paper) are used to lessen the risk of dirtiness produced by the architecture

of the bathroom. This highlights how one technology makes dirt in interaction with other technologies. The cup emerges as a maker of mess in interaction with many other technologies, objects and surfaces (the floor, sink, trousers, paper) that are used together with it or in relation to it. Cups do not make the mess by themselves, but in interactions.

Even in changing situations where the sink and the toilet were closer, many participants brought up the risk of dropping blood on the floor or carpet between the two appliances as a given part of changing one's cup. Often, the material qualities of the surfaces were key to how laborious cleaning the dirt was thought to be. Some floor materials were no problem at all (e.g., a linoleum floor), but bathroom carpets (particularly brightly colored ones) and tiling grout were described as more difficult to get clean. When participants had got blood on a tricky kind of surface, several described negative emotional responses, stating that they had had "many panic situations" and that "it's difficult" ("jobbigt") or "cumbersome" ("besvärligt"). Charlotta described how she had once got blood on the grout of her cousin's newly renovated bathroom floor. She felt distraught and rather frantically scrubbed it with soap and cold water:

CHARLOTTA: Now I've started to always pour it out in the toilet, before I often did it in the sink because then I washed it at the same time.

JOSEFIN: But now [you empty it] in the toilet?

CHARLOTTA: [Yes] because it's easier because then you don't risk dropping it and like, because it can be quite far between the sink and toilet ... it can be quite slimy so I usually take paper 'cos there's always some drop that wants to kind of hang on left ... that is, in the menstrual cup – that hangs kind of from the side and is so slimy. And then you need to take paper, because you either get it on *yourself* or on the *floor* between tiles and then that becomes red, sort of. Haha. That happened once, damn what [inaudible] oh I was at my cousin's house, and they had newly tiled the bathroom, and I was just like "*On with the soap!*" and kind of like "aaaaah!"

JOSEFIN: Yes ... did it go away?

CHARLOTTA: Yes it went away ... [Josefin laughs] and I just "*Not hot, not hot; but cold*" [inaudible] that's what you have to think about, otherwise it sticks.

Like Charlotta, many participants conveyed their knowledge about how to get away blood stains: that *swift action* and *cold water* were paramount. Otherwise the blood stains would "stick forever," as some put it. This shows how cleaning of menstrual dirt entails having a certain knowledge set regarding how it should be done most efficiently. I also understand Charlotta's narrative as including a relatively strong emotional reaction to making a mess. It signals a certain urgency and intensity, wherein this



*Figure 22. Photograph of participant's bathroom. The photo taken by the participant shows the distance from the toilet seat to the sink.*

knowledge is used almost as a kind of armor against the danger of the potential risk of leaving a visible stain on the floor.

In a follow-up interview, Charlotta elaborated further on why she thought that stains were so important to get rid of in that specific situation. She explained that the potential stain meant the risk of embarrassment and that failing to eliminate it would be a kind of failure to control or take care of herself (“ha koll på mig själv”). Charlotta reasoned that leaving menstrual dirt behind put at risk the idea that she was a competent and functional person. I interpret this as communicating perceptions of quite serious pollution dangers. Charlotta’s embarrassment highlights the social and relational nature of menstrual mess. As Thomas Scheff has argued (2000, 2003), shame is an emotion that functions to guide people to behave in accordance with the systems they live in. Here, the menstrual mess is tied not to a feeling of disgust or physical discomfort, nor to fears of disease, but instead to one’s sense of self as an adult, self-controlled and civilized member of society, capable of cleanliness. This is, according to Douglas, quite a typical kind of pollution

danger in secular Western societies (2002, 92). Moreover, Charlotta's reasoning relates to Julia Kristeva's theorizing (1982) on how the formation of the self comes into being through individuals learning to distinguish between and properly separate their selves from bodily wastes. Kristeva maintained that people are trained as civilized beings to treat bodily excretions as abject and to believe that if they are not clean and ordered, they cannot function as social beings (ibid., see also Cregan 2006).

Charlotta's narrative also highlights the importance of the physical material qualities of the menstrual substance in how menstruation comes into being as dirty. Though menstrual substance does not only consist of blood (it also contains thickened endometrial cells and vaginal mucus), its bloodiness is central here. Blood, as most people know, is more difficult than many other bodily substances to get off of certain surfaces, such as grout and textiles. Menses is thus, by virtue of its material nature, somewhat difficult to remove. In addition, the viscosity of the substance plays a role in how menstruation comes into being as messy during cup-changing. The viscosity often differs throughout a menstrual period, varying from scant spots to runny to slimy to lumpy gluey, and so on. Petra said that during the first days, the fluid was "viscous" ("trögflytande"). Anja described how, in some parts of her menstrual period, the quality of her menses made it especially difficult to change her cup without making a mess. She described it as "really slimy" and "stringy" and said that emptying the cup from this kind of menses, which I suggest be called *menstruslime*, meant handling long "cheese strings" that either stuck to the toilet bowl or stayed hanging from her vagina. She described the process of trying to remove the *menstruslime* from her genitals as "pulling and pulling" with one hand, while having her cup in the other, trying to prevent the menses from "ending up on the floor." Observing Anja's body language during the interview, I read it as her meaning that the slimy strings of menses had to be pulled off so they would not to form a drippy "thread" of *menstruslime* that would span from vagina to sink, while dripping blood and slime on the floor as well as on other things. Anja explained that she wanted to avoid making a mess (i.e., staining the floor) because she could not be bothered to clean it ("inte orkar städa"). I read that as a demarcation that the dirt was not symbolically polluted in her view, but that she thought it had to be cleaned away all the same. Another participant reprimanded herself for always forgetting to move her bathroom carpet during changing. As it was placed between the toilet seat and sink, she said she often spilled menses on it. She wrote that she had gotten

“tired of washing away stains” and ended her reply with a sad emoji. In that account, the mess did not emerge as dirty in strong evocative terms of panic, fear, or disgust, but still as imperative to remove. Moreover, she brought to the fore that this was work she thought was “difficult” (“job-big”) and would prefer not to do. This again highlights how this kind of dirt emerged in the empirical analysis as often not explicitly symbolically polluted, but still there was an imperative to eliminate or avoid it.

## Dirt in its right place?

Eliminating or avoiding menstrual mess was often described by participants as a routinized and given part of menstrual hygiene management. Cleaning up menstrual mess was described as being like “any other visit to the toilet,” as something one “just did,” without affect and without paying it much attention. The neutral and “matter of fact” ways in which many participants related to a bloody toilet or bathroom floor were in great contrast to how strongly and negatively many felt about other kinds of menstrual dirt. This may suggest that menstrual mess is less polluted than other kinds of menstrual dirt. It may, however, have more to do with its setting.

Unlike the used pad, the cup, and menstrual reekage, the dirt explored here never crosses important spatial borders of order. Menstrual mess is not “out of place” in bathrooms, but instead belongs there. However, some participant narratives indicate that this is true only insofar as it is effectively eliminated before the menstruants themselves leave the bathroom (toilet). Some described strong negative emotions in rare situations where it had been difficult or impossible to eliminate the mess (like Charlotta’s panic in relation to the stain on the grout). Therein, in relation to the risk of others seeing it, the mess emerged as strongly symbolically polluted. It seems likely that the emotional neutrality of menstrual mess does not so much signal a low level of symbolic pollution as it does a high level of effective concealment.

## The resource intensity of mess

There were participants who remarked that they didn’t think changing cups resulted in any mess at all, and there were participants who described changing as a very messy and highly cumbersome activity. Whether the participants experienced cleaning up menses as an easy

or difficult practice likely depended on factors such as the amount of menstrual flow and the specific materiality of surrounding objects and facilities. As explored above, for example, it is easier to get menses off a linoleum floor than off tiling grout and to change the cup if there is a short distance between the toilet seat and sink. Moreover, if one is bleeding less, one probably makes less of a mess. These examples highlight the many different (f)actors that together may enact changing as a messy practice.

Among the participants who experienced changing as messy, two kinds of resources were described. First, their narratives showed that cleaning involves personal resources such as time and energy. Some displayed explicit annoyance or fatigue in relation to cleaning it up. They stressed that it required time, energy, and continuous monitoring to get or keep the bathroom (toilet) clean after one had changed. Second, their narratives conveyed the environmental resources involved. Water (used for rinsing objects and hands, washing off stains, and flushing), toilet paper (used preventively in the toilet bowl, on objects and hands to avoid dripping, as well as for cleaning stains), and chemical cleaning products (such as washing powder and soaps) were used in cleaning up menstrual mess. These examples position cup changing as a potentially highly laborious and resource-intensive practice. Several cleanliness scholars have argued that cleaning/cleanliness is a resource-intensive phenomenon with clear implications for the environment (Shove 2003; Jack 2018). Menstrual cleaning of menstrual mess seems to be one more example of that.

## The joys of changing cups

Many cup-using participants praised the cup for making less dirt. Karin reported that, compared to the pad, the cup was far “easier and less sticky.” Sara similarly said that the cup provided more of “that fresh sensation” than other products did. Many brought up the fact that its reusability meant that it did not generate (dangerous symbolically polluted) waste, as in the case of disposables. Some participants noted that even though they in fact considered cup usage more time-consuming than other menstrual hygiene technologies, they still thought it felt “fresher and nicer” than other products. The cup is not a maker of mess for all its users.

Several participants brought up aspects of cup-changing that concerned things that I have explored above in terms of mess and messiness,

but elevated them to something other than dirt, to something that had less to do with cleaning and more to do with knowledge-making and pleasure. For instance, Karin emphasized how the practice of changing the cup had spurred an interest in and fascination with the way the menstrual substance looked and behaved. Many participants described similarly how when they had started using the cup they suddenly had seen the substance in a new way, unabsorbed by the menstrual technology. Anja described being fascinated with the texture and viscosity. She tried out different metaphors and adjectives; that it was “*really slimy*” and “a mix of blood and almost mucus,” “like ovulating – no not ovulating,” “mucus lumps,” “slimy almost,” “a *piece of mucus*,” like having “nearly coagulated blood clots,” and said it was sometimes “like a nugget!” of menses.

JOSEFIN: When you empty [the cup] in the sink, what does it look like then? If we imagine that I’ve never seen it.

ANJA: Well, it depends, and that’s what I find very fascinating! ... People who have not [used a cup] ... well I don’t *know* because it was such a long time ago I used a tampon, but you can’t see how much difference there can be between different months. Sometimes it feels like the blood is almost clear [clarification at a later point in the interview: “like ordinary blood”], sometimes it is very slimy, sometimes it is very lumpy. I think it’s very cool. Kind of. ... Well, like, if you compare it to regular blood, then I’m thinking that this, this is *very* slimy, kind of. Well, it feels like a combination of blood and almost discharge [*nåstan flytningar*], well kind of like ovulation. No not ovulation. When it’s like that really – not slimy [*slemmig*] but like, I don’t really know the word I’m searching for. When it’s like mucus lumps [*slemklumpar*], almost slimy. Sometimes. Kind of. Then it’s mucus that you can almost like pull out [*dra i typ*]. That you can physically catch it because it’s like this, [it does not] flow everywhere but it is like a ... a piece of mucus [*slembit*] ... Like when it feels like almost coagulated like blood clots [*blodklumpar*] in it, which also usually are like that you can grab them [*ta i dom*]. They’re often kind of like a nugget [*klimp*]! Like you can hold them like this [shows with her hand]!

I view Anja’s meandering and lustful description as indicative of how this specific way of seeing and knowing the substance was new to her. Moreover, her search to find the right ways to describe it suggests that, prior to me asking her about it, she had not put this experience into words. Several participants expressed excitement and joy, calling this way of seeing the substance as “fun,” “fascinating,” “pretty interesting” and “exciting.” Agnes even reacted to me asking her to describe what it is like when she empties her cup by loudly exclaiming “gosh what fun!” Agnes also emphasized that her fascination was connected to “*seeing*”

her menses, its texture, color and quantity. She described observing with interest how it slowly poured out of the cup and how it behaved in the water in the toilet. In these narratives, the menstrual substance, however much it could stubbornly stick to toilets bowls and was considered imperative to eliminate, emerged as something more than and different from dirt. The narratives highlight the effects of the cup design. Because it collects instead of absorbs the substance – like most other menstrual products do – it makes the substance more examinable. Thus, the cup invites users to get to know their menses in drastically different ways than other menstrual products do. In these accounts, menstruation emerged as coming into being anew, as something these participants had never before encountered.

Fascination has been called an *epistemic emotion* in the sociology of emotions (Morton 2010), related to joy and curiosity. An epistemic emotion is an emotion involved in the process of knowing, it acts as a driver for knowledge and spurs a search for new information (Barbalet 2002). I read the expressed fascination with the menstrual substance as a sign that new knowledge emerges through cup usage. Agnes, Karin and Anja also related their fascination to the time before they used a cup and compared themselves to other people who did not use a cup. They delineated a before and after, positioning the cup as a facilitator of new understandings. Several participants also explicitly mentioned *learning* in relation to emptying the cup, explicitly stating they “learned more” about the substance as well as about their menstrual cycle, and that they “got to know [their] menses better.” Many of the interviewees described a certain surprise in discovering that their menses was not runny like blood or like “a regular fluid” (Daniella). They were surprised about the sliminess, the “nugget-ness” and the way it did not always dissolve in the toilet water “like other kinds of fluids” presumably would. This suggests that other menstrual technologies script the menstrual substance into a more abstract category of “blood” and that the cup renders menses more than, or different from, “blood,” or even different from “liquid.” Instead, the menstrual substance emerged in cup usage as a semi-fluid lumpy slime. Not as blood only, nor as fluid only. Instead, it is also menstruslime.

Jean-Paul Sartre famously mused on the fact that humans find slimy substances threatening to the boundary between self and other. He wrote in *La Nausée* (1964 [1938]) that it bothers us that, in the case of slime, we cannot distinguish where I end and the other begins. In Douglas’ terminology, sliminess as a consistency involves a blurring of boundaries.

It defies ordering, because it is neither fluid nor stable. That would suggest that it is likely to emerge as symbolically polluted. Here, however, the participants are not revolted or disgusted, they do not at all position this slime as matter out of place. Instead, they seem to marvel at the fact that it behaves in a different way than what they had previously thought.<sup>40</sup> The fascination, the perceptions of beauty and knowledge in blood, the fun and joy of watching the fluid as it goes down the drains, could be understood as reconstructions of the ways in which menstrual substance is understood. They counter menstrual concealment imperatives and rearrange menses as not polluted or dirty. As such, cups are involved in processes that make menstruation come into being as much more than and different from dirt or pollution.

On the other hand, fascination may not be the opposite of dirtiness, but instead part of it. Ahmed, for example, has claimed that humans relate to dirt and abjectivity in deeply ambivalent ways. She suggested that disgust is an emotion that inherently involves some kind of desire or attraction to the abject or dirty (2004). Thus, fascination could be understood as an integral part of dirtiness and disgust. On the other hand, I would argue that disgust was remarkably absent from the participants' descriptions of fascination. Some participants showed that they were aware that they had entered abject territory, by jokingly pretending to be disgusted or giving some words of warning. Charlotta wondered if I was "squeamish" ("äckelmagad"), and Agnes pretended to be grossed out when I asked her to elaborate on what it was like to empty her cup. They signaled an awareness that these parts of menstruality are surrounded by pollution beliefs, but they threw those aside and crafted a space wherein disgust emerged as irrelevant.

This positive rendition of matter that other participant accounts positioned as dirty and disgusting relates to what menstrual anthropologists and ethnologists have stressed, which is that a culture's ideas about menstruation are rarely univocal (see, e.g., Buckley and Gottlieb 1988; Bondevik and Lie 2012; Newton 2016; Mead 1949; Malmberg 1991;

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40. Menstrual artist Jen Lewis has collected menses with a cup and filmed and photographed what happens when it is poured into water. The result is a variety of lava-lamp-like sceneries. Lewis' work was featured at an art show that I co-produced with Arvida Byström (Period Pieces 2014). The reactions to her pieces were strikingly similar to the participants' descriptions above. People of all ages, menstruants and non-menstruants alike, were mesmerized by the images and said that they didn't know it could look and act like that, and they wondered why it did.

Hanssen 2012). The menstrual substance may simultaneously be enacted as both a dangerous pollutant – experienced through negative emotions and imperatives of cleaning and concealment – and something fascinating that is experienced through positive emotions.

## Concluding on changing cups

This chapter has focused on how changing the cup can result in menstrual mess. In continuing the de-scription of the cup, the mess was read as inscribed into the cup, an inherent effect of its non-absorbent functionality. Comparing cups with pads, this analysis depicts how two different menstrual technologies make menstruation into a matter of dirt in quite significantly different ways. The ideal cup user emerged as one with a specific menstrual flow that enabled changing the cup in situations with the prescribed scenography. Cleaning up menstrual mess emerged as a potentially laborious practice. Moreover, despite the waste-reducing gains offered by its reusability, the cup's inherent messiness appeared to be environmentally resource intensive in other ways. The analysis actualized the spatiality of dirt and highlighted the bathroom as an important site for menstruality, discussing how bathroom technologies (particularly the toilet seat, sink, architecture and materials in the bathroom) can take part in making menstrual matter into a sometimes laborious and resource-intensive kind of dirt.

They may seem small and trivial each time they are done, but in aggregate, the many, ineffective and time-consuming things menstruants do to keep toilets and bathrooms clean are quite substantial. Each little act of scrubbing and stain-checking is influential and performative. It is involved in shaping a menstruality and a femininity of self-monitoring and control (see, e.g., Ussher 1997), and (re)affirms the notion that cleaning bathrooms is a feminized practice.

Moreover, the laborious messiness of cup-changing is not only informative of how the cup makes dirt, but also reveals the hypotheses and ideals inscribed into the bathroom and its appliances. As discussed above, the needs of menstruants have been systematically disregarded in bathroom design in the US, UK (Kira 1976; Greed 2010, 2016; Moffat and Pickering 2019), and Sweden. Essentially, the standard ways in which bathrooms are designed, built, and furnished today makes menstruality more difficult and laborious than it has to be. Previous scholars have suggested concrete technological improvements in menstrual waste disposal

and anogenital washing (Kira 1976), but simplifying menstrual cleaning practices has not been explored. The messy and resource-intensive nature of cup change suggests that there is considerable room for improvement here as well.

Finally, this chapter dealt with how matter that in most situations seemed to be treated as mess, or matter “out of place,” sometimes came into being much more ambiguously, and even in wholly non-polluted ways. The cup could be interpreted as inscribed with an emancipatory potential, due to how it prescribes transgressions of bodily boundaries and does not absorb the menstrual substance. That potential was visible in participants’ joyful explorations of how the menstrual substance interacted with other materialities in the bathroom. The cup took part not only in processes of menstrual dirt-making, but also in processes that put dirt definitions to the side and render menses a pleasurable fascination and a source of knowledge. Moreover, the participants’ explorative descriptions of the substance ignited dark patches in language, making new things more thinkable. They presented an alternative understanding wherein menses is slimier, less fluid, as well as less univocally dirty. These narratives underline that, even in situations that could be described as messy, menstruation is experienced in ambiguous and nuanced ways, far from only as polluted. This echoes what many critical scholars of menstruation and anthropologists, in particular, have underlined – that cultures and individuals do in fact often relate to menstruation in complex and ambiguous ways rather than merely as dirt/pollution (Buckley and Gottlieb 1988; Hanssen 2012; Newton 2016). Moreover, it relates to ways of thinking that stress the manifold nature of life (e.g., Mol 2002). Multiple menstrualities are enacted alongside (or inside) each other, such that menses comes into being as both polluted and not polluted.

## 9. Conclusions

### – results, contributions and speculations

This research makes visible how menstruation comes into being as a matter of dirt and pollution in everyday menstrual hygiene practices in a contemporary Swedish context. It builds on a growing body of social and critical scholarship on menstruation, on the one hand, and sociological explorations of dirt, on the other. By focusing on practices of human-technological interactions with two specific technologies – the pad and the cup – this research pays unprecedented attention to the details of everyday menstruality and highlights the mundane yet powerful processes that (re)create and (re)enforce menstrual pollution beliefs. This work furthers our understanding of menstrual taboo and symbolic pollution and makes visible the ways in which a multitude of (f)actors, human and non-human, play important roles in how menstruation comes into being as dirty and polluted in our time.

This concluding discussion is structured into four sections. First, I engage directly with the aims and research questions, delineating results that exemplify when and how menstruation comes into being as a matter of dirt and symbolic pollution in the explored setting. Second, I discuss the generalizability of my results and explore what kinds of system(s) the dirt and practices analyzed can elucidate. As Douglas suggested: “where there is dirt, there is system” (2002, 44). Third, I discuss the empirical, methodological and theoretical contributions of this study. Fourth, I conclude by speculating on alternatives identified through the research process and suggest potential opportunities for more comfortable, convenient and time efficient care for menstruation.

#### How menstruation is made dirty

In this section, I summarize my results regarding how menstruation comes into being as a matter of dirt and symbolic pollution. This research has explored a variety of different kinds of menstrual dirt, spanning from the more material and sensory to the more distinctly symbolic, from the

more embodied to the more objectual, from simple to difficult to eliminate, and from the quite benign to the severely malignant with respect to both social and medical (pollution) dangers.

*Dirt as a product of human-technological interactions*

By using Akrich's (1992) method of *de-scribing* the pad and the cup, I elicited information about these technologies' involvement in the makings of menstrual dirt and pollution, both by semantically or symbolically defining it and by materially producing it. However, it was not only the technologies that played a part therein. In accordance with Mol's (2002) approach, there was no one *single* factor that made menstruation come into being as dirty or polluted, but the enactments depended on multitudes of objects, actors and circumstances. The menstrual hygiene technologies interacted with human menstruating bodies (with a certain flow, a certain tactile sensitivity), physical materialities (the hemoglobin's ability to stick to certain surfaces), social valuations of menstrual pollution, humans with emotional reactions, as well as with a long list of technologies and objects. Everything from cotton swabs and tile grout to microwave ovens and wastewater plants emerged as involved, enacting menstrual dirtiness and pollution as an ensemble in concert. The analysis showed that dirt comes into being differently in different human-technological constellations.

Nevertheless, the two de-scribed technologies with their distinctly different functions actualized different kinds of dirt. The pad: worn externally, absorbing menses, and with a telos of disposal, engendered embodied sensory dirt (visual, tactile, olfactory) and a remarkably polluted kind of waste (the used pad). The cup: worn internally, collecting menses, with a telos of reuse, engendered dirt in the form of bacteria and mess. Both technologies' respective manufacturers and the many participants who used them defined certain dirt as heavily symbolically polluted. Both technologies engendered narratives of quite serious threats related to the defined dirt, socially (shame, social ostracism, stigmatization) as well as medically (Toxic Shock Syndrome). I interpreted these as pollution dangers. These professed dangers instructed users to behave and feel in specific ways: to consider the avoidance or elimination of these dirt imperative, and to worry about or fear these threats. Experiences of being rendered menstrually dirty, or failing to conceal polluted menstrual matters, emerged as being tied to risks of stigmatization: social exclusion, being discredited or thought of as "out of control," "uncivilized,"

or “disgusting,” suffering psychological pain, emotional distress, worrying and engaging in excessive self-monitoring. These results largely echo previous scholarship arguing for the stigmatized position of menstruation in Western culture (e.g., Quint 2019; Johnston-Robledo and Chrisler 2013; Young 2005; Roberts et al. 2002), but underline the specific role that various dirt – symbolic and material alike – play in stigmatizing processes and effects.

The hygiene technologies and their respective manufacturers scripted dirt elimination practices that, looking through Douglas’ lens, were interpreted as purification rituals. These practices emerged in instructions as well as in large parts of the participant data as often laborious, cumbersome, difficult and resource intensive, in relation to both the menstruants’ emotions, time, money, and energy and natural resources.

### *Emotions of dirt*

Emotional reactions were central in eliciting narratives of pollution in the data. Not only did menstruants themselves account for strongly negative emotions (such as shame, disgust and worry) in relation to failed concealment of menses, but the empirical material also included narratives of other people’s strong emotional reactions (such as anger, disgust, and fear). In addition, the hygiene technologies were de-scribed as prescribing certain emotions, specifically worry (either of failing in concealment or of causing a lethal disease).

No matter who or what instructed on these negative emotions, the menstruating subject was at the center of them. Many participants seemed to be or have been substantially affected (e.g., scrubbing or worrying extensively) and many appeared to direct the emotions at themselves and their bodies (*I am abject menstruant*). The potentially devastating effects of this on personhood, sense of self, and one’s relationship with menstruation have been discussed by many scholars of menstruation (Martin 2001; Young 2005; Rembeck 2008; Roberts et al. 2002; Chrisler 2011; Johnston-Robledo and Stubbs 2013). My results further underline the notion that the polluted status of menstruation may have concrete effects on menstruants’ emotional wellbeing.

I did not use positive emotions as theoretical tools to identify dirt and pollution, but they emerged in the analysis as being just as relevant as the above-mentioned negative ones. Curiosity and fascination emerged in relation to both abstaining from washing during menses and observing the menstrual substance as it was being poured out of menstrual

cups. These were aspects of menstruality that had been defined – by others or oneself – as dirty and polluted, which meant that the participants had rarely encountered them. When their menses were not readily eliminated or instantly absorbed, some participants told of fascination and curiosity and even joy in finding out new things about their (menstruating) body and its materialities.

### *Sensorialities of dirt*

A special focus on exploring sensory experiences (Pink 2015) highlighted a sensory dimension of dirt, delineating three different dirts; visible (like a stain or a discolored menstrual cup), tactile (like dried blood in one's pubes) and olfactory (like foul menstruums). This facilitated distinctions and comparisons and made visible that different kinds of dirt are differently, along a gradient, materially experienced and socially defined. Most clearly, tactile dirt emerged as more material and sensory, and olfactory dirt emerged as more social and emotional. These findings prompted an analytical separation of dirt into the more material and the more symbolic, even if the two are not dichotomous but instead overlap along a gradient.

Tactile and olfactory dirts also emerged as having been largely disregarded in previous Critical Menstruation Studies, where visual menstrual dirt (such as the stain) have been more studied and debated. This echoes the typical tendency of research to give primacy to the sense of vision (Pink 2015; Low 2005; Largey and Watson 1972). Olfactory dirtiness is a surprisingly overlooked but completely central aspect of menstrual pollution ideas, heavily involved in processes of menstrual stigmatization. Tactile dirt emerged as less social and more intra-subjective than other menstrual dirts. Looking through Douglas' lens, as well as through the lens of many critical scholars of menstruation, menstrual dirtiness could easily be regarded as only a matter of social valuation. The nature of tactile menstrual dirt highlights that dirt is also, and often, very material indeed.

### *Dirts on the margins*

Menstrual dirt emerged in the analysis as being related to multitudes of boundaries. According to Douglas, dirt and pollution are boundary phenomena, and looking through her lens, all menstrual matter is readable as polluted. Because it is matter that comes out of bodily openings, it is “marginal stuff of the most obvious kind” (Douglas 2002, 150). But

not all dirt emerged as polluted in the analysis. Visual and olfactory dirt emerged as polluted not when the menses crossed the boundary of the body, but when they were – or when they were thought to be – perceived by others. I reasoned that the boundaries of the body did not seem to be the actual boundary that resulted in pollution. Tactile dirt was interpreted as unpolluted because, I reasoned, it did *not* transgress the embodiment of the menstruant, but remained a solely subjective, intra-personal experience.

Both the pad and the cup appeared to occupy a liminal space on the margins of order. They emerged as symbolically polluted in moments when they, for example, transgressed the spatial boundaries of bathroom (toilet) and kitchen. In the kitchen, they were (according to some) very concretely matter out of place, they did not belong there, hedged with pollution reactions and concealment practices.

Used pads emerged as strongly polluted in situations when they had not been disposed of in a concealed way. They emerged as matter out of place, objects that did not belong anywhere they could be perceived by others. Douglas has claimed that waste ceases to be ambiguous and threatening when it enters the bin, because it is then placed where it belongs. However, the pad emerged as dirty and “out of place” even when it was in bin bags. There did not seem to be a boundary that menstrual waste could cross and be rendered un-polluted.

The cup’s function of being inserted, worn, and taken out from the vagina positions it as an extraordinarily marginal object. It breaks and defies orders of inside/outside the body, and it repeatedly transgresses one of the body’s openings, i.e., its “most vulnerable points” (Douglas 2002). Thereto, it crosses *gendered* bodily margins. It is no surprise, then, to find the cup – sometimes – so heavily symbolically polluted.

Both menstrual waste management and cup cleaning included practices and beliefs interpretable as dangers of contagion to others. For example, there were narratives depicting menstrual waste as imperative to separate from other wastes while out camping, as well as narratives wherein it was considered abject and impossible to boil a cup in a regular pot. In addition to the menstrual concealment imperative discussed by previous scholars (e.g., Wood 2020), I suggested that there is also *an imperative of separation* wherein menstruators are charged with carrying out practices and behaviors to avoid physical proximity to others. Menstruation comes into being as dirt and pollution through ideas and practices of concealment and separation.

### *Infrastructural misrecognitions*

The fact that there is no standardized simple way to dispose of menstrual waste renders menstruation “out of place” not only in the kitchen, but even in the bathroom. In narratives where dirt elimination or purification practices appeared distinctly laborious and/or difficult, it was evident that a multitude of different other technologies and objects interacted in enacting dirtiness. Wearing a pad emerged as producing resource-intensive dirtiness in bathrooms that did not provide easy washing of the anogenital area. The lack of an easy standardized disposal infrastructure rendered the used pad as dirty in practically and emotionally difficult ways. Many cup-using participants described how when bathrooms (toilets) did not offer the cup’s inscribed *scenography*, the practice of changing the cup emerged as messier, was experienced as more socially risky, and demanded more labor in the form of cleaning.

Moffat and Pickering (2019) argued that the *infrastructural neglect of menstruation* puts menstruants under a “double burden”: charged with hiding that which is imperative to conceal in settings that do not assist them in doing so. My results include their example of menstrual disposal in public toilets, but add a focus on the domestic sphere, thus expanding the argument to other aspects of menstrual hygiene and dirt. There are other infrastructural misrecognitions of the needs of menstruants built into bathrooms (toilets): such as a lack of effective and easy tools and facilities for anogenital washing and for cleaning up menstrual mess. It appears that technologies seemingly meant for menstrual hygiene do not actually help all menstruants to efficiently and effectively clean and wash.

### *The resource intensity of imperceivable dirt*

Bacterial dirtiness and menstrual odor stood out from other kinds of dirt analyzed as they were difficult to perceive by the menstruants themselves. Although bacteria are visible with a microscope, they are invisible to the naked human eye. Although odor is perceivable through the sense of smell, many of the participants were uncertain of their capacity to judge whether others sensed it. Douglas has claimed that the invisibility of bacteria has allowed culture to step in and fill bacterial dirt with meaning. The same seems to be true of olfactory dirt (see also Classen et al. 1994). With imperceivable dirt, cleaning practices (or purification rituals) are inevitably a matter of symbolic classification, entailing

judgements or valuations that deem the dirty object or body clean. The imperceivability of the bacterial dirt of the cup as well as the embodied olfactory dirt meant that, for some participants, these dirtinesses were intensely laborious. When it is positioned as highly important to be clean, but at the same time impossible or very difficult to know when cleanliness has actually been achieved – the potentially dirty are tasked with extensive and excessive practices of dirt elimination. Practices of elimination and avoiding dirt become endless. These dirtinesses could be called *perpetual potentials*, which are essentially impossible to eliminate. No matter how much you disinfect or shower, there is always a risk of your cup or your body being dirty. This does not only involve practices like showering, changing, scrubbing or boiling, but also emotions such as worrying, self-disgust, and continuous acts of self-monitoring and hyper-vigilance.

### *Dirt as both unpolluted and polluted*

Douglas posited that all dirt is somewhat polluted and dangerous in that it threatens the boundaries and borders of systems. However, as mentioned above, not all kinds of dirtinesses emerged as such in the analysis. Menstrual tactile dirtiness was relatively untied to any professed dangers (social or medical), but was instead about the sensory experiences of being dirty. In tactile dirt, menses came into being as a matter of dirt without coming into being as a matter of pollution. Moreover, dirtinesses that were in some parts of the empirical material defined as symbolically polluted were elsewhere related to in wholly different ways. Many participants regarded both social and medical dangers as irrelevant or exaggerated and related to menstrual dirtinesses in very neutral and straightforward ways. In their narratives, a used pad was like any other piece of garbage; the cup did not have to be meticulously cleaned and disinfected, and a messy bathroom was something one “just cleans up.” Some participants even related to dirt in distinctly positive ways, which I will come back to below.

In practice, menstrual dirtinesses were also enacted as polluted by participants who personally positioned them as unpolluted. Although the menstruants did not subscribe to menstrual pollution beliefs themselves, knowing – or imagining – what others think meant that they carried out actions that in practice enacted menses as polluted. For example, they would boil the cup in a designated pot because others might be disgusted. If one, like Mol (2002), regards phenomena as coming into being in practices, then these acts enact these dirtinesses as symbolically polluted.

While Douglas did emphasize the context dependency and relationality of how dirt and pollution are defined, she generally described societies as rather unified wholes. The results of this research demonstrate the importance of acknowledging that one culture's or society's valuation of menstruation is rarely univocal, but includes a multitude of intracultural variations, something that many menstrual scholars have stressed (e.g., Mead 1949; Buckley and Gottlieb 1988; Malmberg 1991; Hanssen 2012; Newton 2016). I would argue that my results further the argument by highlighting that the notion of cultural variation in menstrual attitudes applies not only to the general status of menstruation, but also to the specific matters of menstrual dirt. Menstrual dirt is not inherently polluted: Not all aspects of menstruality defined as dirt appear to be bound to social, emotional or medical threats; and far from all individuals within a given "system" (Sweden, the West) regard all, or even any, menstrual dirt as polluted. Mol's (2002) reasoning adds to this argument by emphasizing that phenomena are enacted as multiples – in variations, with contradictions and ambiguities. Thus, a dirty matter can be either polluted or unpolluted, as well as both simultaneously.

### *Dirty ideal users*

This research follows Vostral's (2008) work on how menstrual hygiene technologies have what she called "technological politics of passing" – scripting ideals of a non-menstrual appearance. According to Vostral, the technologies help to create the ideal of a hyper-hygienic completely invisible menstruation. She has suggested that these technologies play an instrumental role in creating and maintaining menstrual concealment imperatives. However, my analysis suggests that the ideal users of these technologies are not those who successfully conceal their menses, but instead users who consume and buy the products.

I suggest that the disposable pad is not designed to make the user clean, but rather to get itself and its user "just dirty enough." Dependable consumers frequently change (and dispose of) their pads. Thereto, users who consider the used pad a difficult and dangerous polluted kind of waste are more likely to buy a product with "new hygienic disposal" features. Thus, positioning menstrual waste as a dangerous kind of dirt is not only a (re)iteration of a cultural idea of concealment, but also a way to profit from it.

Correspondingly, the ideal dependable consumer (user) of the reusable cup is not one who constantly buys new ones, but instead one

who considers the cup reusable. Douglas argued that objects that cross (gendered) bodily boundaries are highly likely to be considered heavily symbolically polluted. In the wider public, few menstruants use reusable menstrual technologies, and many regard reusable internals as unhygienic or disgusting, as has been reported in this research as well. The business of reusables, then, is not to get their users to constantly buy new ones, but instead to convince more consumers to buy their product at all. I have suggested here that their means of doing this is to utilize bacteriological definitions of dirt. By defining the cup as bacterially dirty, the manufacturer provides a rationalization for the symbolic dirt, which was once irrational disgust, and makes the object understandable as dirty in a way that can be purified (disinfected, sterilized, boiled) and then reused. Again, as Douglas pointed out, the fact that bacteria are invisible to the naked eye makes it easy for bacterial definitions of dirt to take the place of more symbolic ones.

In both cases, specific enactments of dirt and pollution are utilized as tools for increasing consumption of the respective products. This effectively means that these technologies are technologies of hygiene only to the certain point at which they are instead *de facto technologies of dirt*. From that point, they do not help menstruants to get less dirty, but instead make them more so. Critical menstrual scholarship has long maintained that hygiene businesses profit from menstruation's status as polluted and taboo. However, I think there is considerable value in considering that there might be parts of menstruality that are experienced as dirty and polluted not because they are only symbolically categorized as such, but because available hygiene technologies literally make them so.

## Menstrual dirt – depicting system

From the seeming minutia of menstrual dirt and everyday hygiene practices, I now want to discuss what my explorations of dirt say about the society or system they are enacted within.

### *Generalizability*

First, I want to devote some attention to the generalizability of my results. My sample should not be regarded as representative of the Swedish population overall. Instead, most of my participants might even be regarded as a quite specific subset of the population: one largely involved in feminist circles, more open about menses than most. Moreover, as a

group they used alternative menstrual technologies such as the cup to a much higher degree than the whole Swedish menstruating population. Though there were many variations among the participants, I regard them as a somewhat extreme group. When I encountered aspects of menstruality that even they found too intimate or somewhat difficult to talk about, I reasoned that this group represented the outmost boundaries of menstrual openness in Sweden. As I found common themes of shame and secrecy in the participant material, I reasoned that such themes were likely relevant, and potentially even more common, in the general Swedish public. However, I also complemented their views with other kinds of empirical material. I analyzed statements from internet forums that I deemed likely to represent other subsets of the population, and I analyzed technologies that are used by many Swedes and that communicate with the wider Swedish population in their marketing. The results of this research do not, however, convey the one and only truth of all menstruating Swedes. No research can “reveal” the world exactly as it is. Instead, research mediates with the object it studies and generates one specific interpretation of it.

Nevertheless, I would argue that my results likely reveal some common themes and experiences of menstruants in contemporary Sweden. The results inform of a heterogeneous culture in which menstrual dirts are considered by some, and in some situations, to be neutral and considered by others to be extremely symbolically polluted. They show that some people, and likely many more than the ones I found, are quite negatively affected by how menstruation is enacted as dirty and polluted in this specific cultural setting. And it seems that, in Sweden, right now, taking care of menstrual dirt can be a highly resource-intensive practice.

Having said that, I think that the results of this research are also applicable to a much wider population. They inform of other settings with similar attitudes toward menstruation, and with similar menstrual and personal hygiene technologies. Moreover, I have generated an account of how menstruation is enacted as dirty and polluted in practice. In its details, the results relate to the place researched, but on a more general level, they shed light on invisible processes that occur anywhere people menstruate. They make visible why certain things may appear as dirty or polluted, how a variety of (f)actors may be involved, and how that may affect menstruants.

### *Invisibilized gendered inequalities*

Dealing with menstrual dirt tells us a great deal about the status of women in society. Even if there is not a complete overlap between menstruants and women, any explorations of menstruality and menstrual dirt, in particular, are inevitably anchored as a matter of importance to the position of women (as a category, an experience, an identity, a biology, and so on) in society.

I will focus here on the results indicating that menstrual dirt is sometimes heavily symbolically polluted and remarkably resource intensive. This is not the only story, but it is an important one, because it communicates about matters that are highly problematic. I think specifically about the severe pollution dangers to one's social status as well as one's health that appeared around menstrual waste, menstrual embodied odor, and dirty menstrual cups, as well as their time-consuming, resource-intensive and complex elimination practices, or rather: purification rituals. What do these communicate about the wider system they are part of?

According to Douglas, pollution dangers hedge around the borders of a system and purification rituals are attempts at maintaining them. She stated that purification rituals are interpretable as attempts at maintaining a system or a culture (Douglas 2002, 158f), as a kind of "spatio-temporal frame" (ibid., 78) that delineates what and who goes where and keeps us to our assigned roles. The body, she claimed, is readable as a mirror to the wider society, and gendered pollution (or "sex pollution") informs specifically of gendered hierarchies and categorizations. The system researched here seems to exemplify a typical patriarchal one, one in which separation of the sexes is imperative, where the cis-gendered man (non-menstruant) is the norm and standard, and where women have a lower status than men do. The role maintained in the complex and endless purification practices seems to be a femininity of bodily vigilance and control, a womanhood that is tethered to her embodiment, that is abject in her leakage, a woman who should not take up physical space (who does not smell, who conceals her bodily leakages, and keeps her legs together). Douglas claimed that female genitals are particularly polluted (and strictly guarded and controlled) in settings where male dominance is prevalent but challenged. She claimed that, in cultures with clear male dominance, there was no such "sex pollution" (Douglas 2002, 175f, see also Cregan 2006). It seems, then, that she would suggest that

the system here is one in which patriarchal hierarchies are challenged yet persistent.

I have come to read dirt as a sign of invisibilized inequalities. Dirt is inherently considered lowly and inconsequential; the things we do to eliminate it are given routines in everyday life. Because pollution can be read as informing of systems of powers and hierarchies, it also signals areas where there are opportunities for improvement in equality – areas that have remained unnoticed, despite decades and decades of work with gender equality, due to their lowly and everyday nature. Because these hygiene practices and technologies seem so trivial, are so ubiquitous, routinized and naturalized, we easily overlook their impact on our lives (see Vostral 2008, 18). We rarely think of them and much less question them. Instead, we consider elaborate laborious emotional and practical inconveniences to be musts of menstruality.

We (Swedes, Westerners) look at how cultures far away treat menstruants and are appalled by how menstruants are banned from kitchens and temples and forced to sleep in so-called “menstrual huts.” Swedish news media have reported on how “in some places girls are not allowed to even cook food or touch water sources during menstruation, because then there are ideas about attracting demons or that something bad might happen to the food” (Plan International 2021). But how different from that narrative are Swedes’ practices of menstrual hygiene? How different is our disgust with boiling cups in pasta pots from other cultures’ food taboos? How different are our secular culture’s ideas about menstrual concealment and separation from orthodox religious practices of the same? And how different are the stigmatizing effects of menstrual odor in the empirical material here studied, from the “ceremonial uncleanness” delineated in remarkable sections of the Bible?

Sweden is often internationally acclaimed as one of the world’s most gender-equal countries. In public opinion, the country would never appear so oppressive of women. We have long rid ourselves of such backward thinking! But in the minutia of menstrual dirtiness, such ideas are – it would seem – alive and well. In these aspects of life, which are considered trivial and inconsequential, gendered inequalities as well as problematic ideals of femininity are maintained and reaffirmed.

## Contributions

Before I end, I want to call attention to what I consider to be the main contributions of my research.

By engaging with the subject of menstrual dirt and pollution in menstrual hygiene practices in contemporary Sweden, this research contributes empirically by researching an underexplored subject, place, and time. It adds first and foremost to the field of Critical Menstruation Studies by engaging directly with menstrual dirt and pollution and by unpacking menstrual pollution beliefs as more than merely social, inviting a greater heterogeneity of actors involved in their enactments. Thus, it deepens our understanding of how menstrual pollution beliefs are (re-)shaped and maintained in contemporary Western cultures. By not only focusing on attitudes, cultural narratives and definitions of menstrual pollution, but instead also taking into account the more material side, I have also explored aspects of menstruality that have hitherto been largely disregarded. Specifically, I have shown concrete material and sensory experiences of menstrual dirtiness and how hygiene technologies concretely impact and produce menstruation, rendering it a – sometimes – cumbersome and dirty experience. I argue that further acknowledging the material, sensory and technological qualities of menstrual dirtiness is a productive move toward a deeper understanding of how menstruation comes into being as polluted and/or tabooed.

This research contributes to the Sociology of Dirt by expanding on the ways in which dirt can be utilized analytically and conceptualized theoretically. Douglas' theories and concepts proved generally suitable as a theoretical basis for understanding dirt and pollution, though some aspects were lacking and some results directly contradicted her arguments. I applied her systematic level of analysis to detailed practical doings in contemporary life and found that her broad strokes left both the concrete materiality (reeky substances, itching bodies) and the individual effects of pollution aside. By combining Douglas' theories of dirt with ontological multiplicity, sensory ethnographic approaches, selected perspectives from the sociology of emotions, and Akrich's method of de-scribing technologies – I have presented a productive approach for a complex and multilayered understanding of how a phenomenon may come into being as dirty and polluted. The results showcased processes that contradicted Douglas' ideas. My findings echo what some scholars of waste have argued: that Douglas' interpretation of waste as unpolluted

in the garbage bin is a simplification. Instead, waste can remain dangerous and ambiguous long after it has been disposed of. In addition, my results echo that which many menstrual scholars as well as other critics of Douglas' work have underlined: that she considered "the system" or "the culture" to be overly homogeneous and uniform. Instead, these results make visible multiple different ways of relating to phenomena that only sometimes were enacted as dirty and polluted.

This research also contributes to Science and Technology Studies of mundane as well as gendered technologies by providing a thorough exploration of overlooked and underexplored technologies and engaging with their role in shaping meaning and matter. It adds to the body of knowledge that emphasizes the extraordinary impact of these ordinary objects (cf. Shove et al. 2007). I also add to the method of de-scription and the concept *scenography*, which delineates the spatial setting and furnishings proscribed by the technology.

I continue the work of three specific texts. I add to Wood's (2020) menstrual concealment imperative by offering the concept that social and practical rules concerning how one should deal with menstruation stipulate not only concealment, but also separation: the *menstrual separation imperative*. I build on Vostral's (2008) analysis of how menstrual hygiene technologies are scripted to assist menstruants in passing as non-menstruants by emphasizing that *these technologies are also scripted to make menstruation into a matter of dirt and pollution*. And I expand on Moffat and Pickering's (2019) reasoning on the *infrastructural neglect of menstruation* by adding a focus on the domestic sphere as well as on other kinds of menstrual dirt.

## Speculative suggestions

I could conclude by arguing for the absolute necessity to change the attitudes toward and cultural valuations of menstruation. There is no denying that many menstruants suffer quite horribly under the effects of menstrual symbolic pollution. Experiences such as reeking of menses, having others see a stain, or forgetting to dispose of a used pad are linked to risks of stigmatization, self-disgust, worry and hyper-monitoring. Naturally, there is cause to imagine, and to work toward, a world without menstrual pollution. My results present several attitudinal and emotional alternatives and delineate some of the potential benefits of de-polluting menstruation.

But I will not. I will instead end with a couple of speculative suggestions concerning how to make menstruation less dirty and more easily cleaned. At one point, I thought this a difficult and almost impossible thing to do. For more than fifteen years, I have worked to counter ideas of menstrual concealment, paraded menstrual visibility, pride and positivity. How could I then suggest ways of more efficiently eliminating menses? As the research progressed, however, I grew increasingly aware of technological and built misrecognitions of the needs of menstruants. In situations where menstrual dirtiness is positioned as heavily symbolically polluted, it is nothing less than an outrage that available appliances and products so poorly assist in its material concrete elimination. And even if and when menstruation is not symbolically polluted, menstrual dirtiness can be an uncomfortable and laborious thing.

There must be alternatives in menstrual hygiene technologies. It seems that the pad in its current incarnation is to blame for many laborious and stigmatizing dirt. Could it be otherwise designed to make menses less odorous and less sticky? Or could other technologies take its place? One potential replacement could be the cup. But if the cup is not to be equally laborious and emotionally wrought with worry, both users and the industry need to come to terms with its bodily boundary breaking and treat it as less dangerously dirty. Because as it is now, the cup as well may engender a menstruality that ties menstruants to their body and makes menstruating a laborious practice. If we want to improve quality of life for menstruants and truly respect their needs, then it is crucial to develop menstrual hygiene technologies that actually take their emotional and physiological wellbeing into account, as well as respect their time and money. It is crucial to make these technologies comfortable, efficient, and easy and time efficient to use.

Which brings me to all the other technologies involved. There are technologies and assemblages of technologies that make menstrual genitals more easily washed, disposables more easily disposed of, and floors more easily cleaned or less prone to getting dirty. Moreover, there are bathroom appliances for both disposal and anogenital washing that have existed for more than half a century, some of them widely used across the world, but that remain underutilized in Sweden as well as in large parts of the West. Technologies such as a bidet shower close to the toilet seat, and some standardized method of disposal would not only be of value in relation to menstruation, but also for other parts of life and other parts of the population. They could facilitate simpler disposal of incontinence

products, as well as aid in washing for people with everything from post-natal discharge, rich ovulation mucus, hemorrhoids, irritable bowel syndrome, diarrhea, and urinary tract infections.

It is high time we take the needs and discomforts of menstruants into proper account when designing, constructing, and standardizing menstrual hygiene technologies as well as bathrooms and bathroom appliances. Otherwise, we will continue to maintain systems of gendered inequality and discrimination against women and menstruants.



# Sammanfattning:

## Menstrual dirt. An exploration of contemporary menstrual hygiene practices in Sweden

### Kapitel 1: Introduktion

*Menstrual dirt* är en sociologisk avhandling om hur vissa aspekter av menstruation blir till som smutsiga fenomen, både materiellt och symboliskt. Genom att använda en mängd olika sorters empiriska material utforskar jag i studien menshygienens vardagliga detaljer: hur folk rullar sina blodiga bindor, tvättar sina ”mensiga” kön, tömmer sina menskoppar, kastar sina menssopor, hur de rengör mensskydd och underkläder, skrubbar toaletter och kakelfogar. Teoretiskt använder jag framför allt antropologen Mary Douglas teorier om symbolisk klassificering av smuts, men också begrepp från kritiska menstruationsstudier, teknik- och vetenskapsstudier (Science and Technology Studies, STS) och emotionssociologi. Syftet med forskningen är att visa och förstå hur mens blir till som smutsigt i det samtida Sverige, och vilka effekter det kan ha. Genom att fokusera på två vardagliga mensteknologier: bindan och menskoppen, understryks vardagsteknologiers roll i (re)produktionen av kulturella värderingar rörande mens, och hur de påverkar den menstruella upplevelsen. Jag utforskar smutsens materialitet och emotionalitet; känslan av att vara smutsig, erfarenheter av att lukta illa av mens, av att betrakta mensens konsistens när den rinner ner i avloppet, av att hantera missfärgade menskoppar och envisa blodfläckar på badrumsmattan. Genom att synliggöra sådana förgivettagna, rutinartade och bagatelliserade praktiker och teknologier, öppnas de upp och görs möjliga att ifrågasätta och kanske till och med förändra. Genom att fokusera på en svensk kontext, utforskas särskilt hur mens uppfattas och skapas som smutsigt och tabu i ett västerländskt samhälle med hög jämställdhet och där feministisk politik och mensaktivism varit framgångsrik. Studien utgår från fyra forskningsfrågor:

1. När och hur blir mens till som något smutsigt, materiellt respektive symboliskt?
2. Hur är mens definierad, producerad, praktiserad, förhandlad och utmanad som ett smutsigt fenomen?
3. Hur upplever menstruerande materiell och symbolisk menssmuts, och vad gör de för att hantera mens när den blir till som något smutsigt?
4. Hur är olika aktörer, mänskliga såväl som icke-mänskliga, involverade i de här processerna?

## Kapitel 2: Tidigare forskning

Avhandlingen placerar sig i skärningspunkten mellan kritiska menstruationsstudier (Critical Menstruation Studies), smutsens sociologi (Sociology of Dirt), och feministiska teknik- och vetenskapsstudier med fokus på praktiker och vardagsteknologier. Även om kritiska menstruationsstudier har gjort mycket för att destabilisera och ifrågasätta hur mens *hygieniserats* under det senaste århundradet, har fältet i lägre grad undersökt konkreta hygienpraktiker och teknologier. Min studie bidrar här genom att expandera och fördjupa förståelsen för dessa viktiga delar av det menstruella livet. Sociologiska studier med fokus på mens är mycket få, och i princip helt obefintliga i den svenska kontext jag utforskar. Befintliga studier av konkreta menstruella hygienpraktiker i vår samtid behandlar primärt sammanhang i så kallade utvecklingsländer. Ett undantag är Natalie Moffat och Lucy Pickerings (2019) forskning om skotska skoltoaletter där de framför allt undersökt menstruell avfallshantering. Jag bygger vidare på deras arbete genom att inkludera fler menstruella hygienpraktiker, och genom att utöver att studera offentliga utrymmen också inkludera privata rum.

Menshygienindustrins påverkan på hur mens förstås och upplevs har studerats och diskuterats av ett flertal forskare, inte minst genom kritisk analys av mensproduktreklam. Dock har mycket få forskare undersökt de faktiska mensteknologierna såsom bindan, tampongen och menskoppen. Sharra Vostrals teknikhistoriska arbete om menstruationsprodukter i USA är ett viktigt undantag. Jag fortsätter Vostrals arbete genom att utveckla analysen med samtida material och genom att istället för att fokusera på hygien, undersöka mensteknologiernas involvering i hur mens blir till som något smutsigt.

## Kapitel 3: Teori

I teorikapitlet presenterar jag tre nivåer av teoretiska fundament för avhandlingen. Först redogör jag kortfattat för en grundläggande förståelse för hur fenomen, såsom smuts, blir till. Enligt Annemarie Mol (2002, 2012) blir verkligheten till genom praktiker i vilka en mängd olika aktörer och teknologier samspelar för att iscensätta (*enact*) verkligheter. Därefter presenteras avhandlingens teoretiska perspektiv, som primärt är baserat på antropologen Mary Douglas teoretiska diskussioner om smuts (2002 [1966]). Av särskild relevans är att Douglas menar att smuts är en produkt av en social klassificering, att något anses eller definieras som ”på fel plats” (*out of place*, *ibid.*, 44) i ett givet sammanhang. Exempelvis är ett par skor smutsiga på ett köksbord men inte på hallgolvet, ett hårstrå äckligt i soppan men inte på huvudet. Smuts är alltså relativt och inte av naturen givet. Douglas understryker också likheten mellan det som samhällen i väst ofta förstår som vetenskapligt definierad smuts och bakterier med mer så kallat primitiva eller religiösa förståelser av orenhet och tabu. Douglas menar att de två de facto är samma sak. Enligt Douglas synliggör smuts gränserna för sociala system och hon menar att våra vardagliga hygien- och renlighetspraktiker kan förstås som ritualer (*purification rituals*) för att bibehålla ordningen i sociala system. Kroppen, menar hon, kan förstås som en spegel av samhället i stort. Substanser såsom mens, som överskrider kroppens gränser, är därför ofta mycket kraftigt laddade med symbolisk orenhet (*symbolic pollution*) och omgärdas av en mängd olika idéer, beteenden och faror (*pollution beliefs, behaviors, dangers*). Sist går jag igenom min teoretiska verktygslåda och definierar relevanta begrepp från Douglas som sedan kompletteras med begrepp från kritiska menstruationsstudier rörande sociala normer (t.ex. *menstrual concealment imperative*), emotionssociologiska förståelser av känslor kopplade till smuts (äckel, oro och skam) och begrepp från teknik- och vetenskapsstudier (Akrich 1992) som möjliggör analys av teknologiers roll (*scripts, inscriptions*).

## Kapitel 4: Metod

I metodkapitlet presenterar jag hur forskningen lagts upp och utvecklats under arbetets gång. Jag redogör för mina tillvägagångssätt, etiska ställningstaganden, min *situering* (Haraway 1997) som forskare (och aktivist), studiens empiriska material och val vad gäller urval, samt analysverktyg. Forskningen kan kallas etnografisk, men har till skillnad från de flesta

etnografier inte inkluderat observation. Istället har jag följt ”objektet” menssmuts genom ett flertal olika situationer och platser i en mängd olika källor. Det empiriska materialet innefattar ett flertal djupintervjuer med totalt 12 menstruerande individer, svar på en enkät om menstruella vardagspraktiker (med 445 respondenter), diskussionstrådar på nätet, text-, bild- och video-material producerat av mensproduktföretag, och flera mensteknologier, framför allt menskoppar och bindor men även andra såsom tamponger, värktabletter, avfallspåsar (se Appendix B). Studiens främsta analysverktyg utgörs av metoden *de-scription* (Akrich 1992) och en operationalisering av Douglas resonemang om smuts.

Deltagarna var i stort en homogen grupp: merparten var vita, cis-kvinnor – det vill säga personer som fötts med kvinnligt könsorgan, identifierar sig som kvinnor, och uppfattas av andra som kvinnor – och bosatta i eller nära någon av de större svenska städerna, födda på 1980- eller 90-talet, med vad som kan kallas en vanlig, icke-patologisk, menscykel (även om det fanns undantag). På så sätt liknar studiens urval sannolikt majoriteten av svenska menstruerande. Dock skiljer studiens deltagare sig från majoriteten på ett par viktiga sätt. Dels använde en mycket större andel av dem menskopp än menstruerande i den större svenska populationen gör (cirka 50 procent jämfört med mindre än 10 procent). Dels hade många av dem en anmärkningsvärt öppen attityd gentemot mens, ett flertal kunde även kallas mensaktivister. Dock angav vissa respondenter (12) att de var mindre öppna kring mens än andra, och två av de intervjuade deltagarna framstod som helt opolitiska i relation till mens. Därtill var inte ens de mest menstruellt frispråkiga helt oblyga kring alla menstruella aspekter som täcktes av studien. Trots en viss homogenitet i urvalet av deltagare, inkluderar det samlade empiriska materialet en stor variation av erfarenheter, idéer och attityder. Därtill är de två analyserade teknologierna använda av en stor del av den menstruerande befolkningen: bindan är en av de vanligare engångsprodukterna, och menskoppen verkar vara den vanligaste återanvändningsbara produkten. Bindan är en traditionellt använd mensteknologi som bärs externt i den menstruerandes underkläder och slängs efter att den använts. Menskoppen är en nykomling på den svenska marknaden (även om den funnits sedan 1930-talet) som bärs internt inuti slidan och återanvänds i omkring fem år. Tillsammans täcker de två teknologierna många av mensteknologiernas dimensioner.

## Kapitel 5: Att använda bindor

I det första analyskapitlet undersöker jag hur mens görs till något smutsigt i och med själva användningen, eller bärandet, av bindor. Det handlar här primärt om mer eller mindre *förkroppsligad smuts*, sådan som uppstår på eller mycket nära kroppen. Genom att använda Madeleine Akrichs (1992) *de-description*-metod utforskar jag tre olika sensoriska smutsigheter: visuell, taktil och olfaktorisk (luktsinnet). I linje med Mols ontologiska utgångspunkter (2002, 2012) tydliggjorde analysen hur ett flertal aktörer och faktorer interagerar i iscensättandet av menssmuts. Den menstruerande kroppen (med ett specifikt mensflöde, en specifik sensorisk upplevelse), förkroppsligade materialiteter (såsom själva menssubstansen och pubeshår), hygien teknologier (såsom bindan eller duschslangen), objekt och material (såsom textilier) och kulturella idéer (såsom idéer om menstruellt hemlighållande och mens som symboliskt förorenat) iscensätter tillsammans mens som något smutsigt. Bindans specifika roll analyseras särskilt. Teknologin aktualiserade specifika sorters smuts och specifika renlighetspraktiker och analysen belyser hur bindan påverkar hur mens kan definieras och upplevas som något smutsigt. Bindan framträdde som involverad i definitionen av exempelvis fläckar och odör som socialt farliga smutsigheter (symboliskt förorenade), men också i den materiella produktionen av dessa. Jag argumenterar utifrån det att bindan inte bara är ”skriptad” (*scripted*) med hygien och hemlighållande, så som Vostral understrukt (2008), utan också med smutsighet: designad för att förr eller senare göra sig själv och sin användare smutsig, så att den blir bytt till en ny.

Fläckar och odör framträdde i analysen som symboliskt förorenad smuts och deltagarna berättade om hur de – speciellt under vissa delar av livet så som när de var unga eller när de var på jobbet – ägnade mycket tankeverksamhet, tid och andra resurser åt att tänka på, oroa sig över och hantera detta. Taktil menstruell smutsighet framträdde som en mer subjektiv och intra-personlig smuts än andra sorters menssmuts. I analysen av taktil smutsighet ställdes den menstruerandes kroppsliga upplevelse i centrum istället för den sociala, och det blev tydligt att hygien och rengöringspraktiker inte alltid handlar om ritualer och social smutsighet utan att det också finns mer sensoriska och fysiska skäl till att vilja tvätta sig under mens.

Ett litet antal deltagare gjorde tydligt motstånd mot härskande menstruella hemlighets- och renlighetsimperativ och utforskade med viss

njutning sensoriska upplevelser, till exempel genom att låta sig själv och sin kropp vara menstruellt smutsig. Detta verkade dock bara vara möjligt i vissa, mycket privata, situationer.

## Kapitel 6: Att slänga bindor

I det andra analyskapitlet fortsätter de-skriptionen av bindan genom en analys av hur den iscensätts som smutsig när den slängs. Den smuts som jag analyserar här fokuserar på bindan som objekt och kan därför beskrivas som en *förtینگligad* sorts smuts, jämfört med den förkroppsligade i det tidigare kapitlet. Bindan framträdde i analysen som skriptad med ”en politik för att passera” (som icke-menstruerande) (*politics of passing*, Vostral 2008), med menstruella hemlighetsimperativ (Wood 2020), liksom med det som jag kallar *separationsimperativ*: kulturella regler att mens och menssmuts måste separeras från andra än den menstruerande. Detta återskapades och förstärktes både genom hur bindan var designad, paketerad och beskriven i reklam, och genom hur bindan som skräp praktiskt hanterades och emotionellt relaterades till av menstruerande själva och av andra i deras omgivning. Det var dock inte alla deltagare som följde imperativen av hemlighållande och separation. Istället gjorde flera motstånd mot dem, liksom mot idén att mens och mensskräp skulle vara symboliskt förorenat överhuvudtaget. Vissa tyckte inte alls att det var pinsamt eller jobbigt om de råkade glömma att slänga sin använda binda. Dock verkade många deltagare i eller under vissa delar av livet (exempelvis i unga år, på jobbet, hemma hos vissa personer) reagera med kraftfulla negativa emotioner (oro, ångest, skam, panik, själväckel) om de misslyckades med att undanhålla sitt mensskräp från andra. Här synliggjordes hur menstruell symbolisk smutsighet varierar inom en kultur (såsom Sverige), vilket många antropologer och etnologer som fokuserat på mens också har understrukit (se exempelvis Buckley och Gottlieb 1988; Newton 2016; Hanssen 2012; Malmberg 1991).

I de situationer där mensskräp, såsom använda bindor, framträdde som symboliskt förorenat tedde denna klassificering sig anmärkningsvärt envis. Till skillnad från hur Douglas menar att skräp förlorar sin symboliska laddning när det kastas i en soptunna (2002, 198) behöll den använda bindan ofta sin sociala farlighet långt efter att den slängts. Det verkar, menar jag, som att mensskräp inte riktigt har en given plats ens där den är menad att höra hemma. Skräpet framträdde som särskilt problematiskt i situationer där det inte fanns någon infrastruktur som möjliggjorde

enkelt och diskret bortskaffande. Precis som Moffat och Pickering (2019) har hävdad i relation till skoltoaletter i Skottland, så verkade även deltagarna i min studie behöva hantera den dubbla bördan i att försöka bibehålla hemlighållandet av mens i en infrastruktur som inte hjälpte dem att göra det. Även här blev det tydligt att detta resulterade i avsevärda mängder emotionellt och praktiskt arbete. Min analys kompletterar Moffat och Pickering genom att belysa relevansen av argumentet också i den privata sfären. Genom att fokusera på den byggda miljön expanderas också förståelsen för vilka aktörer som är involverade i skapandet av symbolisk och materiell menssmuts.

## Kapitel 7: Att rengöra menskoppar

I det tredje analyskapitlet utforskar jag menskoppens roll i skapandet av menssmuts genom att fokusera på hur menskoppen som objekt iscensätts som smutsig i användarinstruktioner, forumdiskussioner och i deltagarnas känslor och praktiker. Genom att kontinuerligt överträda vissa spatiala (kök/badrum) och kroppsliga (inuti/utanför) gränser framträdde koppen som kraftigt laddad med symbolisk smutsighet. Det fanns en stor mängd handlingar och verktyg för att rengöra koppen i det empiriska materialet.

Koppens bakteriella smutsighet positionerades överlag som en mycket farlig – potentiellt till och med livsfarlig – smuts. De faror och risker som omringar menskoppar är dock inte bara baserade på rationella medicinska faktum, utan är i hög grad också sociala. Ett väldigt konkret exempel på detta är att många inte kan tänka sig att koka (desinficera) sin menskopp i en vanlig kastrull trots att de tror att kokningen tar bort alla eventuella bakterier i kastrullen. Här blir den symboliska smutsigheten tydlig och lyser igenom den bakteriologiska smutsdefinitionen. När bakteriella smutsdefinitioner förstås som att också vara en representation för symbolisk smuts, blir det möjligt att fördjupa förståelsen för vad rengöringsinstruktionerna och -praktikerna handlar om. Jag menar att när vi skrubbar och sprejar och kokar menskoppen fri från bakterier kan vi utöver att vi tvättar bort eventuella bakterier också förstå dessa (kostsamma, resursintensiva) praktiker som kulturellt formade rengöringsritualer, kanske till och med mer än någonting annat.

Liksom med bindan kan de sätt på vilka koppen iscensätts som smutsig kopplas till teknologins telos. Medan engångsteknologier som bindan kan anses skapa smuts som ökar mängden sålda produkter, iscensätter

koppen en sorts smuts som ökar antalet människor som kan tänkas köpa produkten (och relaterade produkter såsom antibakteriella rengöringsmedel). Koppföretagen använder bakteriologiska definitioner av smuts för att övertyga nya kunder. Bakterierna får stå för en rationalisering av den symboliska smutsen (det en gång så irrationella äcklet), och gör koppen möjlig att rengöra (desinficera, sterilisera, koka) och använda på nytt.

Många deltagare gjorde motstånd mot koppens symboliska smutsighet. Bland annat genom att inte följa de detaljerade instruktionerna, och vissa var därtill explicit obrydda över att de inte gjorde det. De utmanade idéer om att koppen hade en farlig sorts smutsighet, och indirekt även idéer om mens som något symboliskt smutsigt.

Koppen verkar dock för många framstå som mycket kraftigt symboliskt förenad. Enligt Douglas är kvinnligt könade genitala gränser ofta särskilt hårt vaktade och kontrollerade med "faror" (*pollution dangers*) i kontexter där manlig dominans är normen, men där den samtidigt är utmanad. Min analys av menskoppens smutsighet pekar ut den svenska kontexten som just en sådan. De sätt på vilka koppen görs smutsig synliggör också mycket kraftfulla idéer om mens och det kvinnliga könet som orent och tabuerat. Genom att koppens smutsighet görs så farlig (livsfarlig) blir renlighetspraktikerna så viktiga, så att kvinnor och andra menstruerande görs till subjekt som är mer eller mindre tvingade att utföra dessa tidsödande, och till viss del till och med onödiga, renlighetsritualer.

## Kapitel 8: Att byta menskoppar

Till skillnad från de andra analytiska kapitlen utforskar detta vad som händer när menssubstanten iscensätts som smutsig "i sig själv". Även om inget ting någonsin är helt ensamt (Mol 2002) är den menssmuts som utforskas här inte lika sammanblandad med teknologin. Kapitellet fokuserar också på en annan sorts rengöringspraktik än de andra: nämligen städning. Städning framträdde som en central del av menstruella hygienpraktiker. Jag kallar menssmuts som städas bort för *menstrual mess* på engelska, vilket på svenska skulle kunna kallas för mensstök, även om det låter lite mindre kladdigt än *mess* och inte allitererar lika snyggt. I detta kapitel fortsätter de-skriptionen av koppen och stökighet tolkas som en smuts som koppen är skriptad med i och med dess icke-absorberande funktion. I jämförelse med bindor tydliggörs det hur olika mens-teknologier gör mens till något smutsigt på distinkt olika sätt.

Analysen aktualiserar också smutsens rumslighet: badrummet framträder som en viktig scen eller plats för menstrualitet och jag diskuterar hur olika badrumsteknologier (speciellt toalettsitsen, handfatet, arkitekturen och olika material i badrummet) kan samspela i att göra menssmuts till något resurskrävande. Den ideala koppanvändaren framträder som en person med ett särskilt menstruellt flöde som möjliggör ett byte av koppen i en situation med en ideal *scenografi* (tillgång till rinnande vatten nära toalettstolen, god belysning, en lättstädad toastol, etc.). När koppen behövde bytas i andra situationer blev det lätt stökigt. Trots att koppens återanvändningsbarhet innebär att den inte producerar något miljöförstörande skräp är den ändå ganska miljömässigt resursintensiv när man tar städningen i beaktande.

Därtill är den arbetsamma stökigheten som kan bli till i bytet av koppen talande för vilka ideal som skriptats in i själva badrummet och dess apparater. Menstruerandes behov har systematiskt misserkänts i badrumsdesign i Sverige och många andra länder (exempelvis i Storbritannien och USA, se Kira 1976 [1966]; Greed 2010, 2016; Moffat och Pickering 2019). Tidigare forskning har föreslagit innovationer för att förenkla menstruell avfallshantering och ano-genital kroppsvätt (Kira 1976 [1966]), men vi vet fortfarande lite om hur vi skulle kunna förenkla menstruell städning. Detta kan sättas i relation till Gudrun Linns (1985) banbrytande arbete rörande badrums städbarhet i allmänhet.

Sist men inte minst inkluderar detta kapitel ett utforskande av hur mensstökigheter ibland istället blev till som något mer ambivalent och till och med helt oförorenat. I och med att koppen överskrider laddade kroppsgränser och inte absorberar – och därmed inte på samma sätt döljer – menssubstansen kan man förstå den som skriptad med emancipatorisk potential. Denna potential var synlig i deltagarnas lustfyllda nyfikna utforskande av hur menssubstansen interagerade med andra material och objekt i badrummet. Koppen deltog alltså inte bara i smutsskapande, utan också i processer som helt åsidosatte smutsdefinitioner och istället iscensatte mens som något njutbart, fascinerande, och som en källa till kunskap. Genom sitt utforskande tvingades deltagarna också sätta nya ord på sina upplevelser och öppnade på så sätt upp för att nya saker kunde bli tänkbara. Detta speglar det som många kritiska menstruationsforskare och antropologer länge understrukt: att kulturer och individer relaterar till mens på komplexa och ambivalenta sätt snarare än som bara tabuerat (se t.ex. Buckley och Gottlieb 1988; Hanssen 2012; Newton 2016). Det hänger också ihop med idéer om hur verkligheten kan förstås som

multipel (Mol 2002). Multipla menstrualiteter iscensätts bredvid (eller inuti) varandra; mens blir samtidigt till som både smuts och inte smuts.

## Kapitel 9: Slutsatser och spekulationer

I det avslutande kapitlet summerar jag mina analysresultat och sätter dem i relation till varandra. Först återkopplar jag direkt till syfte och frågeställningar. Jag diskuterar sätt på vilka mens blir till som ett smutsigt fenomen och belyser först hur den processen sker i interaktioner mellan människa och teknik, vilka emotioner som är involverade i smuts och smutsighet (både positiva och negativa), och smutsens tydliga koppling till gränsdragningar. Sedan går jag vidare till att diskutera hur analysen av menstruella smutsigheter synliggjort vissa infrastrukturella misserkännanden av menstruerande, hur menssmuts i allmänhet, och framför allt osynlig menssmuts, kan vara mycket resurskrävande och arbetsamt, och hur de analyserade (de-skriptade) menstruationsteknologierna möjligen kan ses som bidragande till att göra menstruerande mer smutsiga än de egentligen behöver vara.

Därefter diskuterar jag studiens generaliserbarhet och utforskar vidare vilka sorters system analysen kan synliggöra. Som Douglas (2002) föreslog kan smuts lära oss mycket om samhälleliga system. Eftersom vi lätt förstår hygienpraktiker, hygien teknologier och smutsdefinitioner som triviala är det lätt att förbise deras effekter. Även om många av de analyserade rengöringspraktikerna kanske verkar små och triviala i varje enskilt ögonblick de utförs, blir dessa många, ineffektiva och tidsödande små saker som menstruerande ”bara gör” i aggregat ganska omfattande. Jag menar att varje liten orostanke (luktar jag?), varje kokning av menskoppen och kontrollerande blick på toastolen är inflytelserik och performativ. De spelar stor roll i att forma en menstrualitet och feminitet som präglas av självövervakning och -kontroll (se t.ex. Ussher 1997) och förstärker badrumsstädning som en feminiserad praktik (se t.ex. Hirdman 2007; Linn 1985).

Jag menar att min analys av menssmuts synliggör osynliggjorda och förgivettagna sätt på vilket kvinnor och menstruerande diskrimineras och misserkänns i vardagen. I mensvardagens detaljer framträder inbyggda och förbisedda ojämlikheter, förtryck, och problematiska idéer om vad det innebär att vara kvinna, som står i bjärt kontrast till den allmänna bilden av Sverige som ett av världens mest jämställda länder. Vi (svenskar, västerlänningar) betraktar ofta med fasa hur kulturer långt

borta förtrycker menstruerande med olika menstruella tabun och förhållningsregler. Vi läser om hur menstruerande förbjuds tillträde till kök och religiösa byggnader, och att de tvingas sova i så kallade menshyddor. Svensk nyhetsmedia har rapporterat om hur ”[p]å vissa platser får flickor inte heller laga mat eller röra vattenkällor, för då finns det föreställningar om att demoner ska komma eller något dåligt ska hända maten” (Plan International 2021). Men hur olika är egentligen dessa narrativ hur svenskars menstruella hygienpraktiker kan se ut? Hur olika är våra äckelkänslor kring att koka menskoppen i en pastakastrull jämfört med andra kultururs mat-tabun? Hur mycket skiljer sig våra sekulära imperativ om menstruellt hemlighållande och separation från ortodoxa religiösa praktiker av detsamma? Faktum är att de är långt ifrån väsensskilda.

Jag understryker därefter vad jag menar är min studies primära bidrag, framför allt empiriskt och teoretiskt, men också till viss del metodologiskt. Empiriskt tillför den här studien kunskap om ett underbeforskat ämne, i en underbeforskad plats och tid. Studien bidrar framför allt till kritiska menstruationsstudier genom att direkt engagera sig med smuts och konkreta hygienpraktiker, och genom att utforska menstabun som något mer än bara sociala fenomen. Jag har särskilt fördjupat diskussionen om hur mensteknologier är med och skapar menssmuts. Studien bidrar till sociologiska studier av smuts genom att expandera hur smuts kan användas analytiskt och teoretiskt. Jag föreslår att Douglas systematiska analys av smuts bör kompletteras med teorier och perspektiv som i högre grad inkluderar individuella emotionella och sensoriska upplevelser, liksom materiella och teknologiska faktorer. Jag menar att denna kombination möjliggör en mer komplex och mångfasetterad förståelse av hur mens kan bli till som något smutsigt. Studien bidrar till teknik- och vetenskapsstudier av vardagsteknologier och könade teknologier genom att presentera en djuplodad analys av nästintill obeforskade teknologier, och understryker värdet i att studera det ordinära (jfr Shove et al. 2007). Jag tillför också metodologiskt till disciplinen genom att addera begreppet *scenografi* till Akrichs (1992) verktygslåda för de-skription.

Jag ser mitt bidrag som speciellt kopplat till tre texter: Jag bygger vidare på Jill Woods (2020) konceptualisering av menstruella hemlighetsimperativ (*concealment imperative*) genom att lägga till imperativ rörande separation (*separation imperative*). Jag bygger vidare på Vostrals (2008) analys av hur menshygienprodukter är skriptade att hjälpa menstruerande att hemlighålla sin mens med att understryka att dessa teknologier också kan vara skriptade att göra mens till något smutsigt. Jag bygger vidare på

Moffat och Pickerings (2019) argument rörande infrastrukturellt misserkännade av menstruerande genom att utöver den offentliga sfären även inkludera hemmet, liksom att inkludera fler sorters smuts.

Jag avslutar med att utifrån mina resultat spekulera kring alternativ och möjligheter som identifierats under forskningsprocessen och föreslår potentiella sätt att göra det mer komfortabelt, bekvämt och tidseffektivt att ha och hantera menstruation. Samtidigt som det är uppenbart att vi behöver arbeta avstigmatiserande med mens, så verkar det alltså som att det finns ett par teknologiska faktorer som gör mens till ett än mer smutsigt, och därför potentiellt mer stigmatiserande, fenomen. I en situation där mens fortfarande är kraftigt tabuerat menar jag att det är upprörande att våra vanligaste mensteknologier och badrumsfaciliteter på ett så ineffektivt sätt hjälper menstruerande att hantera sin mens. Även i situationer där mens inte upplevs som symboliskt smutsigt eller tabu, kan mens ändå vara onödigt obekvämt, bökigt och arbetsamt. Jag menar att det måste finnas alternativ. Kan inte bindan utformas på ett sätt som gör mens mindre illaluktande och kladdig? Eller skulle andra teknologier, såsom menskoppen, kunna ta bindans självklara plats? Samtidigt måste både användare och industri hitta sätt att förstå och hantera menskoppen som mindre symboliskt smutsigt, om den inte ska generera liknande mängd arbete och oro. Om vi vill förbättra menstruerandes liv är det avgörande att utveckla mensteknologier som faktiskt beaktar menstruerandes emotionella och fysiologiska välbefinnande, liksom respekterar deras tid och pengar. Därtill finns det också andra teknologier som verkar göra mens onödigt svårt och arbetsamt. Jämfört med svenska standardtoaletter finns det teknologiska lösningar som borde kunna göra det enklare att tvätta menstruella genitalier, lättare att slänga engångsprodukter och lättare att städa toagolv och toastolar. Jag menar dessutom att sådana alternativ också skulle göra vardagen lättare för många som inte menstruerar.

Det är hög tid att på riktigt ta menstruerandes behov i beaktande när vi utformar, konstruerar och standardiserar mensteknologier, liksom toaletter och badrumsinredning. Annars fortsätter vi att upprätthålla ojämställda och diskriminerande system.

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# Appendices

## Appendix A. Call for interest in participation

Jag vill höra din mensberättelse!

Jag heter Josefin Persdotter och är doktorand på Göteborgs universitet. Jag forskar om vad som händer när vi låter mensen få ta plats i samtalet och livet. Tidigare forskning pekar på att mens ofta hemlighålls och pratas tyst om. Jag tycker att det är viktigt att en så vanlig och stor del av så många människors liv tillåts ta plats på många olika sätt. Min förhoppning är att forskningen kan leda till nya sätt att förstå/tala/känna/forska kring mens och menskroppar.

Just nu letar jag efter personer som vill dela med sig av sina erfarenheter, tankar och känslor av hur det har varit och är att leva i en kropp som är/varit/borde vara\* menstruerande. Jag vill höra berättelsen om din mens (eller frånvaron av mens), din "menstruella livsberättelse"! Varför det? För att jag tror att det finns många gemensamma erfarenheter, upplevelser och problem som det väldigt sällan pratas om, och som behöver berättas, höras och förstås.

Deltagare i studien bör vara 18 år eller äldre.

*Vad innebär det att delta?*

Om du deltar så kommer du intervjuas enskilt vid två tillfällen. Varje intervju tar ungefär en och en halv timme och genomförs antingen på universitetet eller hemma hos dig. Den första intervjun kommer handla om ditt menstruella liv fram tills nu, den andra om hur det är att ha mens "här och nu". Mellan intervjuerna kan du välja att föra en dagbok som kan tas med i forskningen.

Intervjuerna kommer genomföras någon gång mellan [datum]. Vi bestämmer exakt tid och plats tillsammans.

Om du tycker detta låter intressant, fyll i det här formuläret och så återkommer jag till dig med mer information. Tanken är att upp till 20 personer kommer delta i studien. Beroende på hur många som är intresserade så måste jag göra ett urval. Frågorna som ställs i formuläret hjälper mig att göra ett varierat urval baserat på bland annat ålder och erfarenheter.

*Övriga frågor?*

Om du har några frågor till mig nås jag på e-mail [länk] eller så kan du ställa din fråga längst ner i formuläret.

Stort tack för att du tog dig tid att läsa detta och jag hoppas att du är intresserad av att delta i forskningen.

Med varma hälsningar,  
Josefin Persdotter  
Institutionen för sociologi och arbetsvetenskap

\* Notera att jag alltså gärna accepterar intresseanmälningar från personer som aldrig haft mens, men som av allmänheten förväntas ha det.

\*\*\*

### *Intresseanmälan*

1. Vill du delta med din mensberättelse i Josefin Persdotters forskning?  
 Ja  Nej
2. Har du tagit del av informationen om vad det innebär att delta i forskningen?  
 Ja  Nej
3. Förnamn
4. Efternamn
5. E-postadress
6. Telefonnummer (där jag kan nå dig dagtid)
7. När föddes du?  
 Före 1930     1940-talet     1960-talet     1980-talet     2000-talet  
 1930-talet     1950-talet     1970-talet     1990-talet     2010-talet
8. Var föddes du? (skriv gärna både stad och land) [fritext]
9. Var bor du nu? [fritext]
10. Biologiskt kön  
 Kvinna  Man  Annat
11. Könsidentitet (kryssa för det kön du identifierar dig med)  
 Kvinna  Man  Icke-binär  Annat
12. Beskriv kortfattat din relation till mens [fritext]
13. Berätta gärna lite om varför du vill vara med i den här studien [fritext]
14. Hur fick du reda på att den här forskningen skulle göras? [fritext]
15. Om du har några övriga frågor eller kommentarer kan du skriva dem här [fritext]

## Appendix B. Material overview

TYPE	DESCRIPTION/TITLE	AMT
<i>Research phase: Explorative work with a small sample</i>		
<i>Interviews</i>	Menstrual life-story interviews	7
	Menstrual-cycle interviews	6
	Follow-up interview after menstrual-cycle interview	1
<i>Texts</i>	Participants' diary of one menstrual period	4
	Researcher's fieldnotes before and after interviews	1
	Libresse.se webpages: "Innehåll. Vad stoppar vi i våra bindor och trosskydd?", "Vikten av en god hygien under mensén" (2018), "Kan man duscha när man har mens?" (2012), "Menslukt" (2014)	4
	Libresse informational text "Tjejnernas lilla röda" (2012)	1
	Forum discussion threads*: "Kissa med tampongen inne?" (familjeliv.se 2009), "Jag stör mig på folk som inte har papperskorg på toaletten!" (familjeliv.se 2010), "Bidé" (flashback.se 2010), "Menskopp, ge mig råd" (familjeliv.se 2012), "Jag kokar över" (familjeliv.se 2013), "Menskopp i pastakastrull" (familjeliv.se 2015), "Menskopp, help!" (bukefalos.se 2015)	6
	Lunette.se: "Grunderna i koppanvändandet" (2021), "Rengöring" (2018), "Hur använda menskopp" (2018)	3
	Menskoppen.se: "Så använder du menskopp, steg för steg" (2018), "Rengöring" (2018)	2
	Leaflets: "Så här används o.b. – tamponger," "How a Tampax tampon works"	2
	Naproxen painkiller leaflet from box	1
	KPwebben.se: "Kropp & Knopp: Mens-special" (2016)	1
	Fieldnotes	1
	Researcher's analytic memos	**
<i>Images</i>	Pictures taken by the researcher: a menstrually themed poster that hung in one of the participants' living room, a blister pack of one of the participant's birth control pills and one of their container, a participants' box of Naproxen painkillers, a participants' phone with the app Clue active, a picture of a red sour candy that one participants preferred during menses, two pictures of a campaign by the regional wastewater plant and Gothenburg City Council, pictures of researchers own menstrual hygiene practices and menstrual substance, instructions on menstrual disposal on various public toilets	**

	Life-story and menstrual cycle timelines (drawn/written by the researcher)	13
<i>Objects</i>	Folded paper towels, donated by participants	3
	Pads: one disposable Libresse pad (including packaging), one cloth pad from a small local business, one disposable Always pad	3
	Tampons: Ob tampon, Tampax tampon	2
	Cups: one white transparent Lunette cup, one brown opaque Keeper cup	2
<hr/> <i>Research phase: A survey of menstrual practicalities</i> <hr/>		
<i>Quantitative</i>	Survey replies, quantitative	**
<i>Texts</i>	Survey replies, free-text	**
	Researchers fieldnotes before and after interviews	**
	Analytic memos during transcription of interviews	**
<i>Interviews</i>	Post-survey interviews	5
<i>Images</i>	Pictures taken by post-survey interviewees of menstrual details in their home	28
<i>Videos</i>	Videos taken by post-survey interviewees of menstrual details in their home	2
<hr/> <i>Research phase: Analyzing the role of technologies</i> <hr/>		
<i>The tech</i>	<i>The pad:</i> A Libresse pad purchased in 2015, “normal size” <i>The cup:</i> A Lunette cup donated by the company in 2014, size 2, semi-transparent, white hue	2
<i>Participant material</i>	<i>The pad:</i> Selected interview material that told of pad-usage, selected survey material that told of pad-usage, sections of diaries that told of pad usage <i>The cup:</i> Selected interview material that told of cup usage, selected survey material that told of cup usage, sections of diaries that told of cup usage	**
<i>Packaging</i>	<i>The pad:</i> The external packaging (2015), the individual wrappers (2015) <i>The cup:</i> The external packaging	3
<i>Video</i>	<i>The pad:</i> The “Roll Press Go” commercial (2014)	1
<i>Printed information</i>	<i>The pad:</i> “Tjejernas lilla röda” (2012), “Det handlar om Dig” (1956)	2

<i>Online information</i> ***	<i>The pad</i> (Libresse.se): “Innehåll. Vad stoppar vi i våra bindor och trosskydd?” (2020), “Vikten av en god hygien under mensen” (2018), “Kan man duscha när man har mens?” (2012), “Menslukt” (2014) <i>The cup</i> (Lunette.se): “Rengöring” (2018), “Cleaning” (2020), “Hur använda Lunette?” (2018), “Alla produkter” (2018), “How to use menstrual cup” (2021), “Storleksguide för Lunettes menskopp” (2021), “Hur ofta måste jag tömma min menskopp?” (2021), “Frågor & Svar” (2022)	12
<i>Public information</i>	<i>The pad</i> : Swedish Chemicals Agency’s (Kemikalieinspektionen’s) report “Kartläggning av farliga kemiska ämnen i intimhygienprodukter” (2018), local campaign on disposal (images, texts) <i>The cup</i> : “Kartläggning av farliga kemiska ämnen i intimhygienprodukter,” Folkhälsomyndigheten’s “Toxic Shock Syndrome (TSS)”	3
<i>Other</i>	Study visit at the regional wastewater plant (22 November 2017)	1

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\* Year in brackets for forum discussions is the year of the first post.

\*\* These materials have not been counted or cannot be counted.

\*\*\* Year in brackets is the year downloaded.

## Appendix C. Interview guide, menstrual life-history

### *Intervjuguide: den menstruella livsberättelsen*

En tidslinje ritas upp och fylls i tillsammans under intervjun. Forskaren håller i pennan så att deltagaren kan fokusera på berättandet. Tidslinjen fungerar som en hjälp för deltagaren och forskaren att lätt kunna återkomma till olika tillfällen, samt som ett sätt att hjälpa minnet. Ofta går intervjuerna till så att forskaren först frågar:

*Var börjar din menshistoria?, Berätta om första gången du hörde om mens! eller Vilket är ditt första mensminne?*

Därefter brukar livsberättelsen gå på av sig själv, men nedan presenteras ett par frågor som forskaren ställer då berättandet stannar av.

Berätta om din första mens!

Om jag ber dig att tänka på viktiga menshändelser i ditt liv: vad kommer du att tänka på? Speciellt starka minnen? När har mensen spelat stor roll i ditt liv?

Berätta om ett tillfälle då mensen varit extra närvarande? ... extra viktig? Betydelsefull?

Berätta om någon gång där det gått fel med mensen?

Berätta om någon annan menshändelse!

Vad har du för mensminnen från ... skoltiden? Den tiden? Då du bodde där?

Berätta om *en sak* som påverkat din mens! (t.ex. mensskydd, piller, kläder, papper)

Vilka andra *saker* tänker du har påverkat din mens?

Vilka *personer* har påverkat din mens?

### *Interna frågor (checklista för forskaren)*

Är alla livsfaser "täckta"? Alla "mensfaser"?

Har hen berättat varifrån hen fått sin menskunskap och mensinformation?

Är alla typer av menstruella objekt diskuterade?

Har vi pratat om alla de ting som deltagaren tagit med sig?

### *Avslutning*

Är det något du trodde att jag skulle fråga, eller som du tänkte att du skulle berätta om som inte kommit med idag?

Hur tycker du att det kändes att göra intervjun?

Hur känner du inför att prata om din mens?

### *Inför nästa intervju*

När ska vi boka in nästa intervju?

Vill du föra dagbok inför nästa intervju?

Hur vill du i så fall föra dagbok? (Digitalt? Papper? Audio?)

När? Hur ofta? Hur länge?

Ge ytterligare information om frivillighet och möjlighet att gå ur.

Deltagaren väljer en egen pseudonym.

## Appendix D. Instructions for menstrual journal

*Följande information ges muntligen i slutet av första intervjun och finns i text om deltagaren efterfrågar den:*

Mellan första och andra intervjun får du om du vill föra dagbok. I så fall kommer vi använda oss av dagboken under intervju två. Om det är OK med dig använder jag också dagboken som analysmaterial i sig självt.

*Hur vill du föra dagbok?*

Du kan välja att föra dagbok på flera olika sätt. Dels kan du skriva den digitalt (dator/telefon/platta) eller på papper. Men det är också helt upp till dig hur mycket eller lite du vill skriva, men det är bra om du skriver något varje dag under perioden. Alternativt kan du välja att föra videodagbok, göra ljudinspelningar eller teckna/fotografera. Huvudsaken är att du gör det på ett sätt som passar dig. Antingen kan du få relativt utförliga instruktioner (se exempel nedan), eller så kan du välja att skriva helt fritt. Vad föredrar du?

*När vill du föra dagbok?*

Vi kommer gemensamt överens om en tidsperiod då det passar dig att föra dagbok. Det kan exempelvis handla om en tvåveckorsperiod som går över din nästa menstruation.

\*\*\*

*Dagboksinstruktioner*

Tack för att du vill föra dagbok inom ramen för studien! Jag ber dig föra dagbok för att jag vill veta mer om din mensvardag och hur du upplever den.

Försök skriva något kort i dagboken varje kväll. Tänk tillbaka på dagen och på tillfällena, platser och händelser då du blev medveten om din mens. Det kan till exempel handla om något någon sagt, något du läst eller hört på nyheterna eller något du upplevt i din kropp.

Bry dig inte om stavning, grammatik, eller handstil. Du och dagboken förblir givetvis anonyma och dagboken förvaras inlåst och lösenordskyddad.

*Utförliga instruktioner för varje dagboksinslägg*

Datum

Notera och beskriv eventuell blödning

Beskriv hur du mår idag, hur det känns i kroppen

Vad var det som hände som gjorde att du blev medveten om din mens?

Var befann du dig då?

Hur kändes det? Vad tänkte du då?

Pratade du med någon om detta? Vem? Hur reagerade hen?

Var det några speciella objekt/teknologier/material som var betydelsefulla för din mens idag?

Om du vill skriva om något som hänt före den tidsperiod du för dagbok går det jättebra, men gör det tydligt att det inte rör denna tidsperioden, exempelvis genom att skriva det längst bak i boken.

Om du har några frågor om dagboken, mejla mig på [josefin.persdotter@gu.se](mailto:josefin.persdotter@gu.se)

## Appendix E. Interview guide, menstrual-cycle interview

*Inför andra intervjun: Senast tre dagar innan andra intervjun skickas dagboken till forskaren. Forskaren läser igenom dagboken och utformar specifika frågor till deltagaren utifrån dagboken.*

### Intervjuguide – en berättelse om en menstruation

#### *Uppföljning*

Hur har det känts sen sist?

Dagboken + cykeln

Rita upp en cirkel på ett papper. Cirkeln syftar till att symbolisera menscykeln. Vi fyller gemensamt i cirkeln genom att börja på den första dagen som deltagarens dagbok börjar. Vi går igenom dagboken dag för dag och forskaren ställer fördjupande och förtydligande frågor i linje med:

#### *Förslag på förtydligande/fördjupande frågor*

Berätta hur det känns (exv. att ha mens)

Hur är första mensdagen?

Hur känns det när det kommer blod?

Hur känns smärtan?

Hur skulle du förklara själva fysiska känslan av att menstruera ...?

Hur känns din kropp när du har mens?

Förklara i detalj hur det går till när du byter mensskydd ...

Vilka teknologier använder du under din menscykel för att hantera mensmen?

Hur känns de? Hur påverkar de dig? Vilken relation har du till dem?

Hur skulle du beskriva substansen? Texturen? Lukten?

*Obs! Var noggrann med att inte pusha deltagaren att berätta sådant som hen verkar vara obekvämt med. Fråga i så fall om det, exempelvis: Varför tror du att det känns obekvämt för dig att prata om detta?*

#### *Avslutning*

Hur tyckte du att det kändes att bli intervjuad den här gången?

## Appendix F. Survey questions

*Enkätinstruktionerna föregicks av forskningspersonsinformation vilken tillgängliggörs på begäran.*

### Instruktioner enkät

Vissa av enkätfrågorna är enklare (t.ex. ”välj vilka alternativ som passar in på dig”) men de flesta är av en beskrivande karaktär. Du får skriva hur mycket eller lite du vill, men ju mer du förklarar och beskriver – desto mer kan vi förstå av dina tankar och erfarenheter.

Om du vill hoppa över någon fråga går det bra, men berätta i så fall gärna varför (t.ex. ”förstod inte frågan” eller ”ej relevant för mig”).

För att deltaga i studien ska du ha haft mens någon gång under ditt liv och vara över 18 år.

För att du ska kunna dela med dig helt fritt är enkäten anonym. Den sista frågan i enkäten är öppen så att du t.ex. kan ge kommentarer om enkäten.

### *Bakgrundsinformation*

1. Välj vilket alternativ som stämmer bäst in på dig

- |   |   |
|---|---|
| <input type="checkbox"/> Jag har aldrig haft mens   | <input type="checkbox"/> Jag har ej pågående menscykel just nu pga ett preventivmedel |
| <input type="checkbox"/> Jag har en pågående menscykel och får mens relativt regelbundenhet | <input type="checkbox"/> Jag har ej en pågående menscykel pga amning eller graviditet |
| <input type="checkbox"/> Jag är i klimakteriet men har fortfarande mens                     | <input type="checkbox"/> Jag har ej en pågående menscykel pga annan orsak             |
| <input type="checkbox"/> Jag har inte mens längre pga klimakteriet                          | <i>Kommentar:</i>   |

2. Vad har du för biologiskt kön?

- Kvinna  Man *Om annat, specificera:*

3. Vad identifierar du dig som?

- Kvinna  Man *Om annat, specificera:*

4. Vilket år föddes du?

5. Var föddes du?

6. Var bor du nu?

### Mensattityder

7. Vilka av följande tycker du stämmer bra in på dig

- |  |  |
|--|--|
| <input type="checkbox"/> Jag pratar gärna öppet om mens i allmänhet      | <input type="checkbox"/> Jag kan prata öppet om min egen mens med personer jag inte känner   |
| <input type="checkbox"/> Jag pratar helst inte öppet om mens i allmänhet | <input type="checkbox"/> Jag kan prata öppet om min egen mens med personer jag känner        |
| <input type="checkbox"/> Jag pratar gärna öppet om min egen mens         | <input type="checkbox"/> Jag föredrar att inte prata öppet om mens                           |
| <input type="checkbox"/> Jag pratar helst inte öppet om min egen mens    | <input type="checkbox"/> Jag upplever mig själv som öppnare än de flesta andra rörande mens  |
| <input type="checkbox"/> Jag pratar om min mens med några få personer    | <input type="checkbox"/> Jag upplever mig själv som mer privat kring mens än de flesta andra |
| <input type="checkbox"/> Jag pratar om mens med många olika personer     | <i>Annat:</i>  |

8. Vilket/vilka mensskydd använder du oftast? Du kan kryssa för flera om du använder flera olika

- |  |                                    |
|--|------------------------------------|
| <input type="checkbox"/> Tamponger     | <input type="checkbox"/> Menskopp  |
| <input type="checkbox"/> Engångsbindor | <input type="checkbox"/> Menssvamp |
| <input type="checkbox"/> Tygbindor     | <i>Annat (ange):</i>               |

### Byta mensprodukt

9. Var föredrar du att byta mensskydd?

- |  |   |
|--|---|
| <input type="checkbox"/> På offentliga toaletter         | <input type="checkbox"/> Hemma, i sovrummet |
| <input type="checkbox"/> På toaletten på jobbet/i skolan | <input type="checkbox"/> Hemma, i köket     |
| <input type="checkbox"/> Hemma, i badrummet              | <i>Om annat, specificera:</i>               |

10. Varför föredrar du att byta just där?

11. Händer det att du byter någon annanstans? I så fall var? Är det något särskilt en måste tänka på då?

12. Finns det några platser eller rum som du undviker att byta mensskydd i? Varför?

13. Byter du mensskydd när andra människor ser? I så fall vilka? Om inte: varför inte?

14. Har du någonsin varit med om att någon "sprungit in på dig" när du byter mensskydd? Har du tänkt på det på nått särskilt sätt? Berätta!

15. När tvättar du händerna när du byter mensskydd? Före? Efter? Med vad? Tvål? Gel? Vatten? Varför gör du det?

16. Är det viktigt att tvätta händerna vid mensskyddsbyte? Om ja, varför är det viktigt att tvätta händerna?

### *Slänga mensskydd*

17. Om du behöver slänga ett använt mensskydd hemma hos dig: var slänger du det?
18. Om du behöver slänga ett använt mensskydd hemma hos någon annan: var föredrar du att slänga det?
19. Har du någonsin spolat ner använda mensskydd i toaletten?  
 Ja  Nej *Kommentar:*
20. Varför har du gjort det? Berätta kort! (om ja på Q19)
21. Varför inte? Berätta kort! (om nej på Q19)
22. Har du en papperskorg på toa hemma hos dig?
23. Om ja på Q22: Slänger du använda mensskydd i den? Varför? Varför inte?
24. Om nej på Q22: Varför har du inte det?
25. Slänger du någonsin mensskydd i hushållssoporna i köket?  
 Ja, det har hänt ett par gånger  Nej, det har aldrig hänt  
 Ja, det gör jag oftast *Om annat, specificera:*
26. Om ja på Q25: Varför slänger du dem där?
27. Om nej på Q25: Varför slänger du dem inte där?
28. Finns det någon plats där du absolut inte kan tänka dig att slänga ett använt mensskydd?
29. Har du någonsin befunnit dig i en situation då du inte visste var du skulle göra med ett använt mensskydd? Berätta kort om vad som hände.

### *Att tvätta sig under mens*

30. Ungefär hur ofta tvättar du hela kroppen? Förändras det när du har mens? (T.ex. tvättar du dig mer/mindre? På andra sätt?)
31. Berätta lite om hur du brukar rengöra kroppen när du har mens. Förklara också gärna varför du gör just så.
32. Hur ofta tvättar du ditt kön under mens? Varför? Och på vilket sätt? Skiljer det sig från då du inte har mens?
33. Mensblodets konsistens kan variera under mens. På vilket sätt tycker du att mensens konsistens påverkar hur du tvättar ditt kön?
34. På vilket sätt är det annorlunda om du är hemma och tvättar dig jämfört med om du är hemma hos någon annan eller på jobbet/gymmet eller liknande?
35. Har du någonsin använt duschslangen och tvättat ditt kön medan du sitter på toaletten? Varför? Varför inte?

36. Har du någonsin använt en bidé?

Ja Nej Vet ej

37. Om ja på Q36: Har du använt den till att tvätta dig under mens?

Ja Nej *Kommentar:*

38. Vad tycker du är det jobbigaste med att tvätta sig under mens?

39. Vad tycker du är viktigt att tänka på vad gäller hygien då du har mens?

40. Har du något tips till andra angående att tvätta sig under mens?

#### *Menslukt*

41. Har du någonsin tänkt på hur din mens luktar?

Ja Nej

42. Om ja, hur ofta skulle du säga att du tänker på hur din mens luktar?

43. Hur skulle du beskriva mensblodets lukt?

44. Har du någon gång funderat över om andra känner lukten av din mens? I så fall, beskriv gärna. Hur gick tankarna då?

45. Har du någonsin känt lukten av någon annans mens? Hur gick tankarna då?

46. Gör du något speciellt för att undvika dålig lukt under mens?

47. Påverkas mensens lukt av vilka produkter (t.ex. mensskydd) du använder? I så fall: hur?

#### *Städa mens*

48. Är det något speciellt som du tycker är viktigt att tänka på när en lämnar toaletten under mens?

49. Är det någon speciell plats eller möbel på toa/i badrummet som det ofta blir mensfläckar på? I så fall: Vad gör du åt dem?

50. Ibland kan mensblod som hamnar långt ner i toastolen vara svårt att få bort. Har du varit med om det? I så fall: Vad har du gjort då det hänt?

51. Har du någonsin lämnat/glömt ett använt mensskydd synligt på en toalett? I så fall: Vad hände? Hur gick tankarna?

52. Har du någonsin sett någon annans mens på/i en toalett/i ett badrum någon gång? I vilken form? (blod, mensskydd) Vad fick det dig att tänka/känna och göra?

#### *Mitt hem jämfört med andras*

53. Vad tycker du är viktigt att tänka på när du är på toa hemma hos någon annan då du har mens?

54. Vad tycker du är viktigt att tänka på när du är på toa hemma då du har mens?

### *Toapapper*

55. Välj ett av alternativen:

- Jag använder mindre toapapper när jag har mens än när jag inte har det       Jag använder lika mycket toapapper när jag har mens som när jag inte har det
- Jag använder mer toapapper när jag har mens än när jag inte har det      *Annat:*

56. Vad använder du toalettpapper till då du har mens?

57. Vad är viktigt att tänka på när en torkar sig under mens? Varför är det viktigt?

58. Mensblodets konsistens kan variera under mens. Hur tycker du att mensens konsistens påverkar hur du använder toalettpapper?

### *Stopp i avloppet*

59. Har du någonsin varit med om att det blivit stopp i avloppet när du haft mens? Berätta i så fall gärna lite om det. Varför blev det stopp tror du? Hur gick tankarna?

60. Brukar du tänka på att undvika stopp i avloppet? I så fall: hur gör du för att undvika stopp i avloppet?

### *Rengöra produkter (för de respondenter som angett att de använder flergångsprodukter)*

61. Du har tidigare i enkäten angett att du ibland använder flergångsskydd (t.ex. menskopp/tygbinda). Hur går du tillväga när du rengör ditt flergångsskydd? Berätta gärna!

62. Är det något som är extra viktigt att tänka på när du rengör dem? Varför är det viktigt?

### *Förvaring*

63. Var förvarar du dina mensprodukter? Varför förvarar du dem där? Varför just där och på det sättet?

### *Övrigt*

64. Är det något annat du vill skriva till forskaren? Kanske ge en kommentar om enkäten eller liknande? I så fall kan du skriva det här.

### *Avslutning*

Det var den sista frågan!

Tusen tack för din medverkan i denna studie!

Du kan skriva ut eller ladda ner dina svar genom att [instruktioner specifika för mjukvaran].

Om du har frågor eller är intresserad av att delta med en intervju i samma projekt kan du anmäla ditt intresse genom att kontakta josefin.persdotter@gu.se.

Med varma hälsningar och stor tacksamhet, Josefin Persdotter

## Appendix G. Demographics of survey respondents

(N = 445)		(n)
<i>Gender/sex</i>		
Identified as	Woman	419
	Man	1
	Other	24
	No reply	1
Biological sex	Woman	440
	Man	0
	Other	3
	No reply	2
<i>Place of residence</i>		
	Big city	257
	Mid-size cities	46
	Small cities/countryside	118
	Outside Sweden	19
	No reply	5
<i>Place of birth</i>		
	Sweden	403
	Scandinavia (not Sweden)	15
	Europe (not Scandinavia)	17
	Africa	5
	South America	1
	Asia	2
	No reply	2
<i>Decade of birth</i>		
	1940s	3
	1950s	4
	1960s	23
	1970s	79
	1980s	210
	1990s	123
	2000s	1
	No reply	2

## Appendix H. Interview guide post-survey interview

### *Frågor*

Berätta om hur du tyckte det kändes att svara på enkäten. Var det några frågor som var speciellt svåra att svara på? Varför? Fick du några speciella insikter eller tankar?

I vilka utrymmen/rum i ditt hem hanterar du din mens? Beskriv dem och vad för menstruella praktiker du gör där.

Beskriv/visa hur din toalett ser ut. Vad för möbler och saker finns där? Hur står olika enheter i förhållande till varandra (t.ex. toa i förhållande till handfat)?

Är det du som inrett? I så fall : Berätta gärna varför du inrett som du gjort.

Hur är det att ha mens på just din toa? Beskriv vilka problem som brukar uppstå, beskriv vad som är extra bra.

Var förvarar du dina mensprodukter? Varför just där? Varför just de produkterna?

Övriga frågor (om någon av enkätfrågorna genererat för knapphändiga/svårbegripliga svar kan en-tre ytterligare frågor – som liknar de i enkäten – komma att ställas för att komplettera dem).

### *Fotografier/bilder*

Deltagaren ombeds också att bidra med ett/ett par fotografier eller en teckning av hens badrum för att förtydliga det som sagts i intervjun.

## Appendix I. Comparisons of messiness

### *Dirty objects mentioned in survey replies to Q49*

*In group of  
respondents who \_  
a menstrual cup*

	<i>Total</i>	<i>Did not use</i>	<i>Did use</i>	<i>Words mentioned in survey (Swedish)</i>
carpet	20	6	14	badrumsmatta, badrumsmattan, badrumsmattor, mattan, toamattan
floor	69	26	43	badrumsgolvet, golfer (sic), golv, golvet
tiling	5	0	5	fogarna, kaklet, klinkers, klinkersfogarna
toilet lid	2	0	1	toalocket, toalettlock
toilet	159	48	111	toilet, toastol, toastolen, toastolens, wc, toan, toans, toalettstol, toalettstolen, toa, toalett, toaletten, toalettens, toaletter
toilet, inside of	13	6	7	toaskål, toalettskålen, toalettholken, botten, böjen, holken, kröken, toalett-kanten, keramikringen
toilet seat	104	59	45	tolettringen (sic), tomring (sic), toaring, toaringe (sic), toaringen, toasätet, toasits, toasitsar, toasitsen, toalettringen, toalett-sitsen, ringen, sits, sitsen, sittringen
clothes	4	3	1	byxor, trosor, trosorna, kläder
sink	73	7	66	handfat, handfatet, handfatskanten, kranen, vasken, diskhon
wall	4	2	2	vägg, väggen
	453	157	295	

*“Mess” mentioned in survey replies to Q49*

*In group of  
respondents who \_  
a menstrual cup*

	<i>Total</i>	<i>Did not use</i>	<i>Did use</i>	<i>Words mentioned in survey (Swedish)</i>
menstrual blood	41	16	25	blod, blodet, blodiga, blöda, blöder, mensblod, mensblodet, mens, mensen
stains	41	20	21	blodfläckar, blodfläcken, fläck, fläckar, fläckarna, fläcken, fläcker (sic), mensfläck, mensfläckar
traces	5	0	5	blodspår, blodrester, rester
drops	11	2	9	droppa, droppad, droppar, droppat, droppe
leakage	1	0	1	läckt
splash/spill	11	2	9	blodstänk, skvätt, skvätta, skvätte, spilla, spiller
	110	40	70	

*Cleaning tools mentioned in survey replies to Q49*

*In group of  
respondents who \_  
a menstrual cup*

	<i>Total</i>	<i>Did not use</i>	<i>Did use</i>	<i>Words mentioned in survey (Swedish)</i>
cotton swab	1	1	0	bomullstuss
wash cloth	1	0	1	tvättlapp
wet wipes	1	1	0	våtservetter
toilet brush	41	12	29	borste, borsten, toaborsen (sic), toaborste, toaborsten, toalettborste, toalettborsten
cleaning detergents	15	8	7	fläckborttagning, galltvål, handtvål, rengöringsmedel, tvättmedel, vittvättmedel, ytsprit, tvål, medel
water	39	13	26	kallvatten, vatten
toilet paper	78	33	45	paper (sic), papper, papperstuss, pappret, toapapper, toapappret, toalettpapper
sink(s)	70	6	64	diskhon, handfat, handfåtet, vasken
washer	3	2	1	tvättmaskinen
tap	2	2	0	kranen
flush	38	15	23	spola, spolat, spolat, spolning
	289	93	196	



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Why is menstruation so often considered a dirty phenomenon, in both material and symbolic terms? How do ideas and realities of menstrual pollution affect the lived experience of menstruation and everyday hygiene practices?

Josefin Persdotter's study *Menstrual Dirt* explores how notions and materializations of pollution are enacted in different menstrual practices: in what products to use, in how to get rid of menstrual waste, how to clean reusables, wash the body and stained underwear, scrub toilets and avoid unwanted smells. It unpacks taken for granted aspects of menstrual life and reveals persistent gendered inequalities in relation to menstruation.

In focus are two specific menstrual technologies: the disposable pad and the reusable cup. The author shows how the promotion and use of these everyday technologies (re)produce menstruation as something dirty, symbolically and as a lived experience. Theoretical tools from the sociology of dirt, science and technology studies and anthropology are used to make sense of a wealth of fascinating interview and documentary material.

The study makes visible how menstrual pollution beliefs are (re)shaped in Sweden, a country with a comparatively high level of gender equality and menstrual activism. The results have implications in a wider context and for policies and technological changes to make menstruating into a less laborious and less negatively felt experience.

Josefin Persdotter is a sociologist and an internationally known scholar within Critical Menstrual Studies. She is also an acclaimed menstrual artist and activist.