The Menstrual Cycles: Philosophical and Ethical Insights in a Powerful Tool

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Abstract:

The dismissal of menstrual cycles from the philosophical discussions about how we get knowledge of the world rests on the assumption of a stable and unchanging self, which supposedly conflicts with the inherent dynamicity of changing cycles. Yet, instead of being an epistemological obstacle, this dynamicity can be a tool to better grasp our continuous state of change. It affects the perception of the world and the development of ethical relations with others. Passing through stages in which one feels particularly vulnerable is a reminder of human vulnerability to environmental and social changes. The awareness of this vulnerability can ground decision-making leading to precautionary actions. Plus, readiness to change and flexibility are crucial elements of ethics in a world in which we constantly need to adapt ourselves. The experience of menstruation sheds light on a conception of the self as an ever-changing, vulnerable and adaptive agent.

Keywords: menstrual cycle, menstruation, self, vulnerability, relations, impermanence, adaptation, ethics, embodied self

Introduction

Menstruations are still remarkably concealed, even in recent philosophical discussions recognizing embodiment as a concrete element of experience¹. As a result, the impact of the menstrual cycles on the experience of the world is strikingly underexplored. This paper explores how the experience of the menstrual cycle influences the experience and the epistemological understanding of the world and others, as well as ethical relationships with the world and others. It seeks to gather insights on the menstrual cycles from diverse sources, including philosophy, cultural studies and sciences; then, it aims to draw philosophical insights from the menstrual cycles. This paper shows how the menstrual cycles reflect a state of dynamic stability of the self and can constitute epistemological and ethical tools. This in turn has implication on the social taboos and restrictions surrounding menstruations. The focus of this paper is on the menstrual cycles specifically, and other related phenomenon such as menopause and hormonal cycles beyond the menstrual cycles are mentioned briefly but would benefit from further research.

The subjective experience of the menstrual cycle can hardly be separated from the socio-cultural

treatments of the phenomenon. Indeed, the cultural imaginaries crucially inform the individual and how she perceives, makes sense of, and reacts to events in the world, including her own bodily changes throughout the menstrual cycle. For this reason, I start by briefly sketching the wide-spread taboo surrounding menstruations. From there, I shortly explore the rich symbolism associated with menstrual cycles. The taboo and symbolical baggage of menstruations are not harmless dreams, but they translate into various restrictions limiting the woman's activities. I discuss four general ways in which current societies still use the menstrual cycles to justify the political invalidation of women's voices, the relative incapacity of women sanctioned in laws (such as menstruation leave), the social stigma forcing women to hide, and finally, medical research aiming at controlling the mysterious menstrual cycle. My aim is not to offer a critic of the social taming surrounding the menstrual cycles, but I must mention it insofar as it contributes to framing the subjective experience of the woman.

Drawing from studies in medicine, cognitive sciences and psychology, I take a step back from taboo, myths and prejudices to check what we actually know regarding the influence of the menstrual cycles on women's experiences. Then, I discuss the phenomenology of the menstrual cycle, and how this changing relation to the world influences the very experience of oneself and the world. Finally, I draw some ethical implications from this epistemological and phenomenological discussion. Notably, these implications go beyond the particular case of the menstrual cycle to encompass non-menstruating human beings and shed lights on a conception of the human self as adaptable and changing.

Taboo and magic

Menstruation is still a taboo in most of the contemporary world. Despite affecting half of the world population for an average total of about 20 litres of blood flow throughout almost seven continuous years² in a woman's lifetime, references and discussions about menstruation are conspicuous by their absence. When they are, most mentions of menstruation are externally descriptive and normative – men should not touch, women should hide.

In literature, songs and pop culture, the few references to menstruation use euphemisms. For example, the word "red" associated with a young woman is recurrent in Western fairy tales (Delaney et al. 1988, 161-165). Many religious texts (especially in Abrahamic religions) use the word "flowers". Popular songs beat about the bush and use expressions such as "not that time". Most of the times, mentions of menstruations associate it with fertility and sexuality. The young woman starts to menstruate and becomes fertile, changing her relations to others, especially to men, and to the society in general.

Among European literary novels, there are very few accounts from the phenomenological experience of the menstruating woman, and the existent ones focus on the "first time", associated with surprise, terror, secrecy and pain. Mostly written by men writers (such as Zola and Goncourt), they also present menstruation as a signal that the woman is ready for sexual and reproductive activities. The phenomenon almost appears like a one-time event to signal the world that the women is becoming fertile. There are also few poems and songs celebrating the cyclicity of menstruating

women, and of the female life (pre-menstruation, during menstruation, menopausal and post-menstruation)³.

Symbolically, the only blood shed by no war, violence, illness or injury became a sign of the mysterious powers of giving life. But the mystery surrounding its cause wrapped it with beliefs of magical powers, both positive (such as giving life) and terrifying, linked with dark magic and witchcraft. With mysterious powers comes danger, and the menstruating woman becomes subject of various restriction. To one extreme of the cultural spectrum of diverse restrictions, the menstruating woman is excluded from the ordinary life. For example, in Western regions of Nepal, menstruating women are forbidden from entering houses and engaging in any form of social or familial life and must instead stay secluded in menstrual hut (*Chaupadi*), sometimes putting the lives of the women at risk (Thapa, Bhattarai, Aro, 2019). Less extreme is the strict interdiction for menstruating women to enter sacred areas. In some cases, because all women are tainted by their menstruations even when they do not bleed, they are excluded all the time from sacred areas (e.g. Okinoshima Island in Japan).

Historically, most descriptions and explanations of menstruations by – male – philosophers in Europe are blatant by their lack of basic knowledge of the phenomenon. For example, Aristotle believed that "active" men were providing the form, and "passive" women offered the material from which men were shaping the child, that is, menstrual blood (2.4.185). Consequently, for him, it appeared clearly that women were inferior to men. This explanatory theory continued to be used as a relevant source, with for example Aquinas' sexual theology⁵. Besides, Aristotle wrote that the gaze of a menstruating woman had the power to redden the mirror in which she looks.

In contrast, menstruations are mentioned several times in the "Yellow Emperor's Inner Canon", a classic of traditional Chinese medicine written around 475 B.C. They are presented as the product of a growth in energy of the connective meridian, and the reason why the girl can become pregnant. Similarly, when this energy weakens with old age, the women reach menopause. Healthy menstruation (as well as healthy "sex energy" in men) is preserved by the balance between Yin and Yang. Menstrual blood is thus an important indicator for health, as, for example, "when Yin is in deficiency and Yang is in excess, it will cause excessive menstrual flow"⁶.

Later, Freud associated menstruation with the fear of castration (1976). He describes men as seeing menstruation with a mixture of disgust, fear, sexual arousal, attraction and fascination with the inaccessible mystery of giving life. All of which somehow translates into justifications for the isolation of women, as we will see in more details later. Some authors also link male circumcision and ritual bleedings as rituals of passage to imitate menstruation (Delaney, Lupton, Toth 1976).

Mary Douglas pointed out the ambiguity of menstrual blood as "pollution" (1966). While menstrual blood – and by extension, femininity – is seen as a tainted signal of inferiority of the woman, it is simultaneously giving women mysterious secretive powers. As Buckley and Gottlied summarize: "The common fact of menstruation among all women challenges the social order of a maledominated society and defines and bounds a female subgroup within the society, thereby creating a new separate and dangerous order." (1988, 28-29) Douglas' pollution theory raised numerous

objections and debates around patriarchy and the "shadow societies" of women alienated from "real society" by male domination (Wolf 1972). Notably, Françoise Héritier places the observation of the "injustice and mystery" of the fact that to reproduce himself, a man needs a woman's body at the source of the appropriation and control of women's bodies by men, leading to the hierarchical gendered social structure that can be observed all over the world (2007, 20; 1991).

The main point is that, despite sometimes being endowed with mysterious powers, menstruation is often seen as a shameful pollution and a debilitating hindrance (Dahlqvist, 2018). This symbolic understanding of the menstrual cycle unsurprisingly unfolds itself in dialectical relation with an idea of clean and stable masculinity as the standard and norm of humanity. The assumption of a stable and unchanging self gifted with reason seems to conflict with the continuously changing female cycles. Then, menstruations themselves may appear obviously undesirable and lead to assertions such as: "No woman would menstruate if she did not have to" (Greer 1971, 42). In contrast, the subjective experiences and the social regulations of menstruation give an image more complex than plain rejection. Moreover, menstrual activists and artists who strongly challenge these assumptions are increasing their visibility (Bobel 2010; Weiss-Wolf 2017).

Social taming

Menstruation is normatively used to justify isolation, exclusion and discrimination against women simultaneously to "protect" women who suffer from menstrual pains, weaknesses, and instability, and to "protect" men from the mystical dangerous powers of menstruating women. Societies tend to go to great lengths to capture and regulate the menstrual taboo. When menstruation is associated with pollution and shame, it comes as no surprise that women are expected to hide their menstruations and the various symptoms that come along the menstrual cycles.

What must be hidden is not only the drops of menstrual blood, the whole of the symptoms of the menstrual cycle. Symptoms of the menstrual cycles are often source of shame, precisely because they lie beyond the control of the woman. It sometimes gives rise to an idea of the woman as concretely not self-contained and not self-controlled. This supposed lack of self-control then justifies the fact that the society itself must control the woman. Carol Delaney describes this line of argumentation as prevalent in the Turkish village society where she conducted her anthropological fieldwork. She shows how the religious promise of an afterlife leads to a devaluation of the present life and its various embodied contingencies – such as menstruations – in aid of the religious, pure and masculine preparation of the soul for the afterlife. She writes: "The entire system could be interpreted as an elaborate denial of the awesome power of women to bring forth life and a response to and a prophylactic against the mess, fluidity, and change that are its inherent characteristics" (1988 92). Without going this far, generally, the menstrual cycle as a whole carries strong social stigmas that pushes or forces women to hide it, or to seclude and to cover themselves because they are irremediably tainted by it. From the risky Nepalese menstrual huts to humiliating jokes in schoolyards around the world, girls and women learn that their menstrual cycles have no place within the public eyes.

The menstrual cycles are instrumentalized to justify not only the social control of women, but also their invalidation from politics. During the 19th century, changes in mood across the menstrual cycles were supposedly proving the unsteadiness of the female mind itself (Buckley et al. 1988, 43), making them inapt and unreliable for any serious tasks. On the contrary, nowadays, the anger and irritation of women is often downplayed as the results of temporary bodily dysfunctions. Because of that, claims and protests of women are not to be taken seriously. E. Rome argues that labelling the premenstrual syndrome as illness and menstruations as incapacity (including incapacity of judgement) is a way to "ignore and invalidate women's rebelliousness" (1986, 146). According to her, these support attempts to normalize what is the "true" self of the women as when she is "loving and docile" (1986, 148), especially in contrast with the premenstrual syndrome (PMS). Further, this view of menstruation as incapacitating does not only affect women and discredits their protests and political claims, but it is also used to excuse and explain men's behaviours. Emily Martin notes: "If a man's failure at work can be laid at the doorstep of a woman's PMS, so too can a man's violence", as woman's rebelliousness and impertinence provoke an irresistible spark that naturally pushes men to feel uneasy, worry (and thus work less efficiently), and even exert violence (1988, 174).

Many authors described a tendency to treat the "rebelliousness" of menstruation (and menopause) as an individual – mainly physical – problem instead of considering the claims raised by the women (Fox-Genovese 1982, 272-273; Dalton 1979, 80). This tendency supports an image of a supposedly stable and rational self (often taken to be a characteristic of masculinity) as the standard and legitimate authority in relation to which the changing and uncontrolled female bodies must be forcingly grasped. As a result of this social explanatory story of menstruation, women tend to interiorize the idea of their inferiority and lack of control at least during some phases of their menstrual cycles, often during the menses (e.g. Ussher and Perz, 2011). A.J. Dan describes this process of internalization. From the biological substrate and physiological changes emerges first a subjective reality that is shared with other women and builds the social reality of menstruation as a shared experience (Berger and Luckmann 1966). This shared experience is then confronted with the dominant social reality, which happens to be "largely defined by males" (1986, 5). Consequently, the individual tends to internalize the received ideas and to structure their subjective experience of the menstrual cycles around them.

Crucially, women are not passive in this process of interacting with and interiorizing the social reality constructed around the menstrual cycles (Fahs, 2016). There are many anthropological accounts of women who accept the "dangerously powerful conception of themselves as menstruators but utilize the fears associated with menstruation to achieve their own ends" (Lawrence 1988). Women tend to circumvent the male monopoly of official decision-making to play in an arena of informal power relations. Moreover, some movements made more accessible through social media and the internet encourage a (re)valorisation of the experience of the menstrual cycle⁷. In particular, women are encouraged to dedicate their premenstrual and menstrual periods to creative time. More will be said about the phenomenological experience of menstrual cycles later.

Concretely, menstruation (and menopausal disturbances) is not only commonly used to discredit, invalidate and ignore women's complains and anger, but it is also sometimes used to justify pay gap between men and women and specific legal treatments of women. The debates around menstrual leave illustrate the dilemma of legal approaches to the menstrual cycle. In Japan, South Korea and Taiwan, women who experience difficulties to work because of menstruations are legally allowed to take a leave. In South Korea, women are even ensured additional pay if they do not take the menstrual leave. But menstrual leave also raises backlash, as it is also used – by other stakeholders – to justify pay gap and discrimination in work, all of which is related to the idea that women are less efficient at work that men (Dan 1986). Menstruation supposedly causes lowered work efficiency and increases vulnerability. Yet, several authors showed that incapacity is not a necessary companion of menstruation (Harlow 1986, 42), and others that men also have cyclic changes in mood and work efficiency, so that "a social cycle exists for both sexes and conceptualizing debilitating effects only due to the menstrual cycle may indeed reflect a cultural bias against women" (Englander-Golden 1986, 94).

In criminal law, for example in the United States, the premenstrual syndrome has been presented as an affirmative defence to a criminal charge "if the defendant can show that (i) she was suffering from premenstrual syndrome at the time the crime was committed; and (ii) because of her condition, either that the criminal act was an involuntary act or that at the time of the criminal act she did not possess the mental state required by law for the commission of a crime" (Lewis 1990). Debates are still raging around the idea, especially in the English speaking world (Solomon 1995; Oleck 1953). These legal approaches to the menstrual cycles contribute to reinforce the image of menstruations as potentially dangerously uncontrollable and debilitating.

Nowadays, medicine plays a central role in the social attempts to control menstruations. The attitudes towards menstruations and amenorrhea (the absence of menstruation) vary greatly and are often intertwined with fears of illness, infecundity and pregnancy (Van de Walle and Renne 2001). They led to the proliferation of "menstrual regulators", pills and diverse forms of medicine aiming at controlling menstruation and restoring it in case of amenorrhea. It might seem paradoxical that while menstruations are depicted as a painful burden, losing them is considered unhealthy and "menstrual regulators" are used to "restore" the blood flow. Interestingly, female contraceptive pills continue to mimic menstruations, while some claim that "many women would now welcome a form of contraception that mimicked the natural effect of breast-feeding and produced amenorrhea" (Anderson et al. 1983, 31). Yet, this is less surprising when we learn that "women learn to attribute negative events in their lives to particular times of their cycles whether or not they actually correspond to cyclical changes in any measurable way" (Rome 1986; referring to Golub and Harrington 1981). In other words, the social construct of the menstrual cycle and of "how women are supposed to feel" during the menstrual cycle importantly shapes women's subjective experiences of the cycle itself. Moreover, there are discrepancies between the physical realities and needs of women related to the menstrual cycle and what is normatively advised – or imposed – by the medical community. Consequently, dissatisfaction and distrust with the healthcare systems (and doctors)

who appear not to take seriously women's claims and display "traditional authoritarianism" pushes women to turn to "alternative healers" (Brown and Zimmer 1986, 182).

We went through various social constructions attempting to understand and manage the menstrual cycle, be it the social stigma pushing women to hide their menstrual cycles, the political invalidation of their claims due to their supposed emotional instability, or the attempts by law to normatively regulate the menstrual cycles. Now, what do sciences tell us about it?

What sciences tell us

First and foremost, the experience and symptoms related to the menstrual cycle vary greatly among women, so the generalities and average that are discussed here are not to be taken with a normative value regarding what is considered a "normal" menstrual cycle, and more importantly, a "normal" experience of the menstrual cycle. This being said, some regularities are observable throughout the menstrual cycle.

In average, the menstrual cycle lasts 28 days and includes the follicular phase (from the first day of the menses to ovulation around the 14th day) and the subsequent luteal phase. The follicular phase is characterized by lower body temperature and lower levels of progesterone. Ovulation is signalled by a peak in bodily temperature and is accompanied with a hormonal increase of oestrogen levels, followed by higher progesterone levels during the luteal phase. Studies have found an increase in report of feeling jealousy (Krug et al. 1996) during the pre-ovulatory phase, and an increase in sexual appetite and mood improvement in the ovulatory and post-ovulatory phases (Henderson and Whissell 1997). The menstrual cycle has also been shown to be a major contributor to cyclic variation in women's mood, regardless of the cultural background (Pierson et al. 2019), and larger in amplitude than other cycles (daily, seasonal, etc.). Women tend to feel statistically significantly sadder in the pre-menstrual and menstrual phases, and significantly happier in the follicular phase. Interestingly, age might increase the amplitude of the mood variations (Pierson et al. 2019).

The most famous effect of the menstrual cycle is the premenstrual syndrome (PMS) that begins during the luteal phase (often only a few days before the menses), and disappears within a few days of menstruation. Premenstrual syndrome affects almost half of reproductive-age females (despite great variation in this estimate across studies) (Johnson 1987), and includes depression, irritability, anxiety and stress (Luine 2014). Between 10-20% of menstruating women (again, there is a great variation of this number across studies) suffer from premenstrual dysphoric disorder (PMDD) that can disable the sufferers from engaging normally in their personal interactions and daily activities (Ryua and Kim 2015). On top of the symptoms of PMS, it includes pain, headache, generalized aches, hypersomnia and insomnia, changes in appetite (Sundström Poromaa and Gingnell 2014), and also emotional symptoms such as intense emotional lability, feelings of "loss of control", difficulty in concentrating, and fatigue (Ramos-Loyo and Sanz-Martin 2017). Besides, it has also been shown that suicidal attempts (Baca-Garcia et al, 2000) and psychiatric admissions (Reilly et al. 2019) are more frequent during the menstrual and premenstrual phases.

Notably, the menstrual cycles seem to have no clear effect on the perception of pain in healthy women, but studies have shown "differential activation patterns across the menstrual cycle in regions involved with cognitive and motor function, even in the absence of a behavioural pain response, suggesting that cognitive pain and bodily awareness systems are sensitive to menstrual cycle phase" (Iacovides et al. 2015). Similarly, cognitive performance (such as navigation performance and verbal fluency) does not appear to be affected by the menstrual cycles. Instead, "menstrual cycle dependent-changes in cognition are likely more subtle and possibly not so much reflected in performance per se, but in how that performance is achieved, i.e. in cognitive strategies" (Pletzer et al. 2019; Scheuringer et al. 2017). Recent findings in neurosciences show that "menstrual cycle changes in brain activation occur irrespective of cognitive strategy" (Pletzer et al. 2019). Some authors suggest that "these shifts allow for more flexibility in thinking" (Gorvett 2018; Hausmann et al. 2002; Hausmann et al. 2017).

The most important effects of the menstrual cycles are on emotional experience and recognition. The luteal phases is associated with impaired emotion recognition accuracy (Derntl et al. 2008) (e.g. longer reaction times to all emotional stimuli) and enhanced emotional memory (Poromaa and Gingnell 2014), possibly due to high progesterone levels and increased amygdala reactivity (Ertman et al. 2011). Events occurring during the luteal phase are more likely to result in spontaneous intrusive recollections (Soni et al. 2013) and increased traumatic flashback memories (Bryant et al. 2011). In addition, reactivity to fear seems to be enhanced during the luteal phase (Bayer et al. 2014). Moreover, studies found that women show a significantly larger response to happy male facial expressions during the follicular phase, which is significantly reduced in the luteal phase (Yamazaki and Tamura 2017; Hofmann et al. 2006). Interestingly, these changes in emotional reactions to facial expressions do not translate in differences in self-reported levels of empathy (Derntl 2013).

Unsurprisingly, oral contraceptives (or sex hormones) significantly affect the effects of the menstrual cycles on women, in particular by reducing emotional recognition accuracy and decreasing responsiveness during facial emotion processing tasks. Conversely, pregnancy and postpartum also alter emotion recognition, which could indicate a "hypervigilant state in new and future mothers" (Osório et al. 2018). Nevertheless, "there is no consistent evidence for negative effects of most hormonal contraceptives in the general population", even if there is individual variation (Robakis 2019).

Phenomenology of the menstrual cycle

The experience of the menstrual cycle is primarily internal, clearly anchored within the body. Every woman has a different experience of the menstrual cycle, and this very experience also changes throughout her lifetime. Nevertheless, from the previously mentioned studies a standard image of the experience of the menstrual cycle for most menstruating women can be painted. Through more or less the time-span of a lunar month, the menstruating woman experiences different stages. During menstruations and during the premenstrual time, she might feel pain, sometimes so strongly that it

might leave her curled up on the floor, incapable from engaging in her usual daily activities. She might also feel numb, sadder, and less ready to interact with others. When the bleeding starts, she needs to take actions to hide it, with a piece of cloth, pads, tampons, cups, etc. Even when she does not experience pain, she might still feel uncomfortable, tired and less energetic, and refrain from engaging in some activities. Notably, women are likely to feel more vulnerable, exposed to danger (Skultans 1988, 143) and introspective during the premenstrual and menstrual periods.

After the menstruations, women often regain energy, assertiveness, self-confidence and self-reliance. Women can learn to observe their leucorrhoea to understand at which exact stage of their cycles they are. Without any visual observations, some women can feel when they approach ovulation and when they ovulate. Some also experience pain in the lower abdomen that switches from one side to the other from month to month during ovulation. After ovulation, women enter in the often gloomy luteal phase that ends with premenstrual symptoms and finally the menses. This description reflects the standard changes through the menstrual cycle, but again, some women experience different kinds of changes at different points of the cycle.

Crucially, through a menstrual cycle, a woman experiences different stages. She goes through moments or days during which she feels particularly vulnerable, and others in which she feels stronger and more proactive. In other words, she experiences regular changes in herself. They affect what she feels up to do (and sometimes what she can do), and how she sees herself, others, and the world. So, these changes do not affect only her body and her experience of her body, but they also taint her interactions with others and her experience of the world. For example, pain and numbness give the experience a blurred and languid taint, while at other points during the cycle, the experience might be sharper and brighter.

Moreover, the ways the woman interacts with others might slightly vary as a result of, for example, impairment in how she recognizes emotions in others and herself. She might feel more easily irritated from what others do during some phases, or more prompt to feel jealousy. Through time, she might learn to feel these differences, to identify that they are related to her menstrual cycle, and to adapt her activities accordingly (not necessarily by balancing her moods, but also by interacting differently or dedicating her time to different tasks). On top of these differences in relation to the self, to others and to the world, as we discussed before, the menstruating women is also subject to numerous social restrictions according to the socio-cultural context, and that might be amplified by feelings of shame, fear, and emotional symptoms linked to the cycle itself.

The subjective internal and embodied experience of the menstrual cycle is also influenced by the shared experiences (Ussher, Perz and May, 2014). One could suppose that the experience of the menstrual cycle is primarily influenced by the mother-daughter relation and exchange of knowledge. Yet, the influence of peers seem to be a stronger factor in shaping the shared reality of the menstrual cycle, probably because "Menstrual attitudes, beliefs and symptoms experiences may change throughout a woman's life, reflecting her recurring experiences of the menstrual cycle and, perhaps, other significant life events and experiences (e.g., child-birth, motherhood)" (Stolzman 1986, 111).

In particular, the adolescent experience of the beginning of the menstrual cycles is likely to be strongly influenced by the shared reality with other adolescents and the social taboos and cultural messages surrounding it, whereas the older menstruating women are likely to have balanced these external social inputs with their own experience to create a more nuanced perception of their own experience. Long-term experience of the menstrual cycle, child-birth and pregnancy are not the only factors influencing the menstrual symptoms themselves, and the perception of these. Oral contraceptive also affect the amount and degree of cycle-related symptoms; actually, in many cases, they are used precisely to this end, more than for their contraceptive effects.

Menstruation has a critical influence on self-image (Young, 2005). The first menstruation marks the entrance in womanhood, while menopause either projects women in an uncertain and relatively undefined social position, or, makes them gain the new more free and higher social status, in between male and female status, as it is particularly common in Africa (e.g. Vincent, 2003). Women have different attitudes towards menopause, which might reflect their variety of attitude towards menstruations themselves. For example, through her anthropological field in South Wales, Vieda Skultans describes two opposite attitudes towards menopause. She notes that "the way women described their conjugal relationships emerged (...) as directly related to the way they described their experience of menstruation" (1988, 145). Namely, women who were classified as "happy" (successful motherhood, regular relationship with the partner), desired menstrual blood loss, "deemphasized their experience of menopausal symptoms" (155), and rejected the transition to a "postmenopausal role and that role's culturally defeminized basis". Conversely, women deemed "unhappy" appear to welcome the "opportunity to conform to a new postmenopausal role". Depending on the adequacy of the women's self-perception with the cultural role of womanhood, menopause was then perceived as either a long-awaited liberation from an unsatisfying position ("deemphasized through relative indifference to menstruation") or in an uncertain and worrying "state of suspension" after losing their "rightful place" symbolized by fertility and menstruation (159-160). In both cases, the end of the menstrual cycle marks important and often progressive changes in the selfimage, as menopauses does not happen overnight, and many women experience a period of irregular menses, hot flashes, and struggle with adaptation. Skultans quotes interviewees who describe menopause as a vivid self-image havoc: "women turn into men "inside"" (154), or "there was another person, "a me" inside her, one that had nothing to do with being a wife and mother" (158).

The disruption that often accompanies menopause indicates the importance given to the menstrual cycles in the woman's conception of her self, be it as a regrettable hindrance or a central feature of her femininity. It also sheds light on the ambiguity of the self-perception of the menstrual cycle. The experience of the menstrual cycle is changing over time, intertwined with the experience of other life-events (such as adolescence, motherhood, menopause), and associated with different social roles and cultural images. Moreover, as we have seen, the experience of the menstrual cycle itself also impacts the experience of the self and the experience of the world. Then, the various internal, embodied, cultural and social transformations associated with the life-time changes linked

to the menstrual cycles are likely to impact the woman's conception of the self, relations to others, and even worldview.

Nevertheless, the evasiveness of these changing factors raise difficulties to establish what is to be considered "normal". There are large differences in the experience of the menstrual cycle (both intraand inter-women) that span across a wide spectrum. Yet, if there is one element that appears clearly, it is precisely this state of constant changes. There is no fixed, frozen and solidified reality or normality. It leads to a conception of the self as dynamic, possibly changing over lifetime, but also mobile through the menstrual cycle. Plus, as worldviews are tainted by the conception of the self, themselves become changeable. Then, the best course of action in a given situation is not anymore defined exclusively according to external circumstances, but internal factors of the agent also play a crucial role. Internal capabilities (and even, to a minor extend, values) are coloured by the phenomenological stage the agent is in at the moment.

In sum, we have seen that studies from medicine, psychology and cognitive sciences show that the woman goes through different stages throughout the menstrual cycle. These changes affect not only the self (internally), but also interactions with others (externally), and also what the agent is socially encouraged or discouraged (notably through shame) to do. That supports a conception of the self as the nexus of continuous changes. The self is then concretely flexible, going through cyclic stages of vulnerability. By realizing how changing and vulnerable she sometimes becomes, the agent might also be mindful on how others are equally changing and vulnerable. It might encourage her to take a precautionary posture regarding her own limitations and capacities, and the needs and vulnerabilities of other people. By extension, this precautionary approach tied to her own cyclic vulnerability may influence her worldview and apply to decisions involving not only herself, but also others and non-human beings.

Importantly, this concrete state of continuous changes does *not* entail a complete lack of control and restrain. The fact that the agent is subject to cyclic and life-long internal changes does not imply that she is fundamentally unpredictable, irrational and unreliable. On the contrary, the awareness of this flowing state of changes allows the agent to distance herself from it. To understand this unescapable fluidity of life enables the agent not to be submitted to it, but to prepare herself and be more ready to welcome these changes in a precautionary and peaceful way. In short, the self does not appear as an unbridled unsteady and untamed force, but as a dynamic stability that is ready to deal with ineluctable changes in the world and in herself.

Ethics and epistemological power

The dynamic stability of our viewpoint on the world and ourselves has epistemological and ethical implications. Notably, while the focus of this article is on the menstrual cycle, these epistemological and ethical implications are not confined to the female phenomenological agent. Nonmenstruating women and other human beings – crucially, men – also go through different hormonal and emotional stages that involve moments of vulnerability (e.g. testosterone levels appear to be

following circadian or seasonal cycles (Kimura and Hampson 1994, 59)). For example, Ameisen elegantly links the dynamicity of the menstrual cycle to the continuous birth and death of cells in the human body. He adds that the fragility of the cells "plays an essential role in our plasticity, allowing our bodies to recompose and adapt to constantly changing environments at each instant" (Ameisen 2007, 205, my translation). So if the menstrual cycles bring our attention to the dynamic stability of the standpoint of the self, this dynamicity is not limited to menstruating women. Let us see first how this dynamic stability impacts the ways we acquire knowledge of the world and ourselves, and consequently how does that shape ethics.

The awareness of the menstrual cycles has epistemological benefits. The menstrual cycle makes the agent regularly go through different stages that taint her world and herself, stages that she can identifies easily as related to her embodied standpoint and to bodily traceable and visible symptoms. This fact enables her to see the world and herself through different angles. Consequently, it increases her knowledge of how the world looks like from different perspectives, comparatively as if she was constantly stuck in one static standpoint supposedly "neutral". Indeed, one can safely suppose that observation of the same object from different angles and through different emotional lenses is likely to increase the understanding of the given object. Moreover, it pushes her to pay attention to changes in herself that affect her perspective on the world and what appear to be her possibilities and her needs. By extension, it also encourages her to pay attention to changes in other people. No state of affairs appears fixed and definitive. The same person can have different needs and powers at different moments.

This stance frontally opposes the idea of essentialization of the self or of some features of the self. Essentialization transforms transitory features into fixed and central elements of what it is to be a certain person or a certain type of person. For example, associating the transitory vulnerability that a woman may experience in the premenstrual and menstrual phases to womanhood itself leads to *define* women as fragile and vulnerable "by nature". Essentialization is the process that is behind the rationalization of the "protective" social control of women because they are "by essence" unconstrained and fragile (as we discussed before). On the contrary, the experience of menstrual cycles that links clearly emotional viewpoints with regular and visible bodily changes provides a strong warning against any tentative to fix and essentialize some impermanent traits to what a person "truly" is.

When it comes to understanding other human beings, the flexibility of this dynamic epistemological standpoint is fundamental. Regardless of gender and sex, human beings go through different stages through their life. Artificially essentializing some features and hypothesizing a stable and unchanging self is likely to produce more harm than good when confronted with unescapable changes (such as typically like illness, injury, old age, depression, etc.). On the opposite, recognizing the inherent possibility (if not reality) of changes in others and oneself amounts to recognize the possibility of improvements and the possibility of errors.

This brings us to the ethical implications of recognizing the stable dynamicity of the menstrual cycle. In particular, the awareness of the normality of passing through impermanent stages of

vulnerability, and of the changing nature of the self supports a tolerant attitude to weaknesses and errors from oneself and from others. The awareness of our own vulnerability enables us to connect with other individuals as vulnerable agents. It can improve communication between individuals by revoking shame linked to temporary weaknesses and clarify each other's particular needs. Understand the other's needs is a prerequisite for answering them. Conversely, understanding the other's vulnerability is a necessary condition to minimize harm.

Moreover, menstrual cycles underline the adaptability of agents to changes in themselves and in the world. This readiness to change and to adapt oneself is critical for ethical decision-making and behaviours in a changing world. Nowadays, environmental and social changes confront us to the necessity of changing our habitual behaviours in order to avoid inflicting (more) harm on others. In such a pressing context, to have the capacity to adapt oneself is essential, that is, to recognize simultaneously one's vulnerability and one's ability to change. Furthermore, the current environmental and societal issues we are facing are also presenting us with the crude reality that our seemingly insignificant everyday life actions have harmful consequences on others' lives. We must think in terms of what "place" we take in the world, and what do we leave to others. In thinking about these questions, the dynamic stability of the menstrual cycle presents us with rich inputs regarding our own needs and vulnerabilities, the ones of others, and our own powerful agency characterized by a sharp awareness of these.

The recognition of the fact that we are not all-powerful, constantly rational and stable human beings pushes us to take precautions when intervening in the world and in each other's lives. Even if another individual (or another being or system) momentarily appears to be unshakable and firmly strong, she might not be so in different circumstances, or in another day. Then, actions and measures regarding this individual must take into consideration the natural possibility of weaknesses in the seemingly powerful other.

Conversely, the inherent adaptive capacity for change implies that we cannot reject responsibility to change behaviours and practices with an excuse based on essentialization of the practice as part of who we are. If who we are *is* changing, then we can be expected to *become* better. In other words, as we *can* change, then we *must* thrive to improve ourselves and minimize the harm that we might be involved in doing. The common phrase "...but we have always done so" is not a valid excuse for rejecting responsibility to change one's behaviour, if this behaviour has harmful consequences. For example, appeal to tradition to justify the isolation of young girls in menstrual huts regardless of their own safety cannot be acceptable insofar as the advocates of such a tradition are able to change themselves and to reconsider what they value and desire to protect.

Finally, in our interconnected world where buying a mango in Japan likely supports an exploitative production system in the Philippines, not doing harm reveals to be highly complex and responsibility might become overwhelming. In this context, going through stages in which the menstrual cycles reminds us of our own embodied vulnerability can highlights our own personal limits and needs. It teaches us to find a balance between what we can do and what we need.

All in all, the menstrual cycle appears to be a powerful tool to understand and navigate within a changing world of intertwined relationships with other vulnerable beings. Far from being an obstacle in the way to "objective and neutral" knowledge, it informs us from different perspectives and breaks the dangerous illusion of a stable and purely neutral reality. When we consider the current world of rapid social and environmental changes, the capacity to adapt ourselves to these changes appears as a necessary ethical virtue. And the dynamic stability of the menstrual cycles can train us in this direction by showing us a variety of alternative ways and options, and by constantly reminding us of our plasticity and adaptability.

This new light on the menstrual cycle as an epistemological and ethical tool has also implications on the social taboos and restrictions presented previously. Far from being a source of shame, this approach normalizes the menstrual cycle as part of the changing nature of human life. Instead of being seen as incapacitating, it appears as a tool to understand the world and ourselves better, and also to monitor better one's own mental and physical health by allowing oneself to be momentarily vulnerable. For example, the anger and "rebelliousness" triggered by some specific issues especially during the premenstrual and menstrual cycles might be used as a signal pointing at underlying recurrent problems that are otherwise left invisible.

This perspective also has implication on research, as it urges for the need not to presume the menstrual cycle as neither a necessity, nor an incapacitating handicap. It also indicates the possibility to reconsider the use of "menstrual regulators" as not exclusively positively "normalizing" menstruations and moods (even while admitting some regrettable side-effects), but also as potentially depriving the agents from other perspectives on herself and the world. In a word, it widens the often overly narrow perspective on the menstrual cycle.

More generally, this analysis of the phenomenology of the menstrual cycles informs a vision of the human self. Indeed, most of the considerations described here relatively to vulnerability, changes, emotions, etc. are not limited to menstruating women. If the menstrual cycles has the benefit of clearly linking some emotional patterns to bodily changes, allowing women to follow these changes quite easily, men and non-menstruating human beings in general also go through different stages through life, and through different cyclic patterns, be it mood swings affected by weekly schedules, seasonal changes, or daily cycles. When we take a step back, most of the points discussed here around the particular case of the menstrual cycle apply to human beings in general. We are all vulnerable and changing beings who need to be aware of our own individual limitations and needs, and who simultaneously need to adapt ourselves to the changes in the world while recognizing vulnerability in other beings.

Conclusion: A powerful tool

Despite being one of the most common phenomenon regularly shaping the lives of half of the world population, the menstrual cycles are still kept away from discussions about how we relate to ourselves, and to others and the world. Once we look at the various cultural taboos and magic beliefs

associated with menstruations, this ignorance of the menstrual cycles does not come as a surprise anymore. Across different cultures around the world, menstruations have been widely used to justify a high variety of social restrictions imposed on the menstruating woman. On top of social stigmas, the menstrual cycles have also been a key in discrediting women's political claims by painting an image of the woman as unconstrained and lacking of self-control. In contrast, recent studies in medicine and psychology shed lights on the high variety of subjective experiences and symptoms associated with the menstrual cycle, and the regularity of some average patterns such as a tendency to feel gloomier and sadder during the luteal phase, and significantly better emotional recognition accuracy during the follicular phase.

Instead of seeing the dynamicity of the menstrual cycles as an epistemological obstacle and a handicap, I propose to see it as a tool to better grasp the continuous state of change we are in. The dynamic stability of the female cycle affects the individual perception of herself and of the world, and the development of ethical relationships with others. It allows the agent to explore the world and her relations with others from different angles while being aware of the bodily anchored source of these changes. Moreover, passing through stages in which one feels especially vulnerable is a reminder of human vulnerability to environmental and social changes. The acute awareness of this vulnerability can help keeping in mind the precautionary principle when making decisions. The dynamicity of the female cycles also highlights the continuous state of changes we are in, and supports a conception of the self as ever-changing. Readiness to change and flexibility are crucial elements of ethics in a rapidly changing world in which we constantly need to quickly adapt ourselves to new ideas and lifestyles. Through the repetitive experience of menstrual cycles, menstruating women can cultivate in the flesh an awareness of our vulnerability associated with readiness to change, which can guide us to develop adaptive and ethical worldviews and ways of life. In short, the in-depth study of the menstrual cycle, gathering insights form psychology, anthropology, medicine and biology allows us to conclude that the dynamic stability of the menstrual cycles provides an excellent basis to develop adaptive and ethical worldviews and ways of life. It remains to be seen more in details how non-menstruating beings are also prone to cyclical bodily variation that impact their perceptions of self, others and the world.

Endnotes:

- 1. For example, it is completely absent from discussions on embodied selfhood (e.g. Durt et al., 2017).
- 2. As a woman has about 13 periods of 5 days and 50ml in average, for about 35 years of her life (Shaw et. al. 1972).
- 3. The most famous example in English-speaking literature might be the poem by Emily Dickinson, "The name of it is 'Autumn'".
- 4. https://www.ohchr.org/Documents/Issues/Water/ContributionsStigma/others/field_bulletin_-_issue1_april_2011_-_chaupadi_in_far-west.pdf.
- 5. Aristotle, *De Generatione Animalium*, book 4, 2 (766b 33): "As regards the individual nature, woman is defective and misbegotten for the active power in the male seed tends to the production of a perfect likeness according to the masculine sex; while the production of woman comes from

- defect in the active power or from some material indisposition, or even from external influence, such as that of a south wind, which is moist". And Aquinas, *Summa Theologiae I and II*.
- 6. Huang Di Nei Jing, Yellow Emperor's Inner Canon, Chapter 7, translation by Henry C. Lu (301, Vol. 1).
- 7. For example, "'We're having a menstrual liberation': how periods got woke" by Abigail Radnor in The Guardian, 11th November 2017. And websites such as periodpositive.wordpress.com.
- 8. In Japan, see Article 68 of the Labour Standards Law states: "When a woman for whom work during menstrual periods would be specially difficult has requested leave, the employer shall not employ such woman on days of the menstrual period". In Taiwan, see the Act of Gender Equality in Employment. In South Korea, see Article 71 of the Labour Standards Law.
- 9. Notably, the following older article disagrees and states: "The menstrual cycle effect on human pain perception is too large to ignore." (Riley et al. 1999, 1).

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