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Hormonal Advantage: Retracing Exploitative Histories of Workplace Menstrual Tracking

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Abstract

Technologies and self-help protocols associated with menstrual tracking have gained popularity over the past decade, with wellness consultants such as Alisa Vitti at the helm. Through careful monitoring and lifestyle changes, such techniques promise to unleash an inherent hormonal advantage that can extend one's personal and professional pursuits. Though seemingly new, these approaches to menstrual monitoring have an historical lineage born of corporate management. Now being sold as feminist, they draw on a belief in menstrual deficit, or an understanding of menstruation along productivist lines focused on curbing workplace absenteeism and enhancing personal optimization. In bringing together cases from over the last century, this paper seeks to establish a through line of economization and imagine instead how workplace tracking might be leveraged toward worker mobilization and bargaining for collective gains.

Introduction

In April 2019, reporting from the *Washington Post* revealed that developers of the popular menstrual tracking application Ovia were quietly marketing their users'

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data to employers and health insurance companies (Harwell 2019). Under the banner of corporate wellness, Ovia offered clients an opportunity to gather more data about their employees' lives, including the number of workers currently using the app's fertility functions, those facing high-risk pregnancies, and how soon new parents planned to return to work. Nowhere in the app's interface was there suggestion of the potential for this data brokerage, but hidden away in the privacy policy was language carving out "royalty-free, perpetual, and irrevocable license, throughout the universe" to exploit de-identified personal information for "external and internal marketing purposes" (Ovia Health 2020b). Not mentioned was the relative ease with which this "aggregate data" could be "re-identified" by cross-referencing employee information relayed to the app in confidence, especially in workplaces with few Ovia users on staff (Harwell 2019). In response to widespread criticism following the report, the firm defended their practices by emphasizing that their "Enterprise Maternity and Family Benefits" service made available to employer health plans and insurers was compliant with the United States Health Insurance Portability and Accountability Act (Ovia Health 2020a). Yet, for many, the Ovia controversy revealed increasingly insidious forms of corporate surveillance with little oversight or regulation on how workers' intimate information might be put to use (e.g., pregnancy discrimination, changes in health coverage).

Though seemingly new, techniques of menstrual surveillance have a long history. Violent traditions of menstrual tracking extend back to the Antebellum South, when enslavers relied on early gynecological research linking the irregularity of menstrual cycles with infertility (Owens 2018; Schwartz 2010; Washington 2008). Associating missed work and barrenness with threats to reproductive and productive labor upon which the slave trade depended, they monitored enslaved people's monthly cycles by recording the distribution and storage of rags used to absorb menses and experimented with "therapies" for dysmenorrhea such as chloroform and bloodletting (Schwartz 2010). As historian Deirdre Cooper Owens (2018) notes, it is through this cruel exploitation and torture of enslaved people that modern gynecology developed and, with it, the origins of medical racism experienced today such as vast racial disparities in maternal mortality (Center for Disease Control and Prevention 2020) and forced sterilization of those detained in US immigration detention centers (Moore 2020).

In this article, we focus on a more recent lineage of menstrual tracking that inherits corporal modes of oversight and discipline in a much less violent but insidious form within the corporate sphere. In the 1920s, as a response to the introduction of white women into US office settings, company-sponsored studies of dysmenorrhea were used to justify paying lower wages. Other research sought to link absenteeism to workers' menstrual cycles and recover "time lost" represented by number of trips to the restroom and sick days. Like earlier menstrual surveillance of enslaved people, this activity was presented as

advancing scientific understanding (here, within the burgeoning field of industrial hygiene). In practice, researchers quantified perceived deficits among menstruating workers and enforced rules for conduct such as the performance of particular work tasks and subjection to invasive, physical examinations. In this paper, we examine how workplace monitoring techniques such as these from a century ago laid the groundwork for connected health- and fertility-tracking technologies marketed widely today. Through apps like Ovia, we see how disciplinary functions can lie just under the surface of self-tracking. Over the course of this paper, we focus our attention on a genre of self-care we term *hormonal advantage*, promoted under a neoliberal feminist agenda of optimization and demonstrating an impulse to extend market rationality to all aspects of life. Specifically, we examine the work of self-proclaimed wellness guru Alisa Vitti, whose "cycle-syncing" method and attendant app promises to cure discomfort associated with one's cycle through dietary and lifestyle changes and tap innate "feminine energy" to enhance work productivity.

This work draws on analysis of early scholarship from the field of industrial hygiene—originating in the United States at the turn of the last century—to examine corporate schemes of data collection. Though industrial hygiene research has since taken place across an array of contexts and nations, our focus is on retracing technologies and self-help protocols that have emerged more recently and revealing how contemporary consumer-facing versions inherit and extend the exploitative regulatory techniques of their predecessors. Our efforts to draw connections between early workplace studies and contemporary menstrual tracking sits within a tradition of feminist design research that seeks to interrogate the histories that inform contemporary design practices and artifacts (Rosner 2018). In bringing together cases from over the last century, we seek to establish a through line of economization and imagine instead how workplace tracking might be leveraged toward worker mobilization and bargaining for collective gains.

Before discussing these examples of workplace menstrual tracking, we first turn to two streams of scholarship that animate our discussion. The first centers on self-tracking practices, algorithmic management, and workplace wellness programs that seek to render the body docile. The second discusses modes of feminism that have emerged over the past several decades, which direct attention and resources toward empowerment and individual gain (rather than social movement participation). Drawing on this literature, we examine historical and contemporary cases, charting the move of menstrual optimization from corporate surveillance to individual practices of self-care. We conclude by discussing worker-oriented campaigns that focus instead on confronting structural inequities through data activism.

~~Self-~~Tracking, Workplace Wellness, and Algorithmic Management

According to Gordon Hull and Frank Pasquale (2018), employee wellness programs predate digital self-tracking platforms, emerging instead from the fitness boom of the 1970s and the rise of neoliberalism. Within corporate settings, sponsored initiatives meant to support "healthy living" among the workforce incentivize participation with discounts on health insurance premiums or the threat of penalties (Till 2017, 2019). Increasingly combined with apps and wearable devices to foster "personal responsibility" through behavior change (e.g., smoking secession, exercise challenges, or weight management plans), these programs promote individual participation in fitness activities in order to satisfy a corporate interest in reducing healthcare spending, increasing worker productivity, and decreasing absenteeism (Gregg 2018). Though research has found wellness programs fail to cut costs, they do condition workers to frame personal choices around food consumption or exercise in terms of investment in one's personal brand (Hull and Pasquale 2018). Functioning as an apparatus of biopower, Hull and Pasquale argue that participation results in the stylization of the self, extending work obligation into private lives, and reinforcing individual liability for risk.

Echoing this argument on responsibilization and control, sociologists Deborah Lupton and Gavin Smith (2018) suggest that risk mitigation and moral accountability underlie impulses to monitor one's fitness, leading to a sense that one can avoid chaotic life situations through self-tracking practices. Wellness programs and the apps that support them then reframe the work of optimizing the body toward increased productivity as a form of health. Such practices shape how the body is lived and perceived as measurable and quantifiable and "whose movements, habits, and internal workings are rendered more visible, knowable, and thereby potentially more manageable" (Lupton 2013, 398). This visibility also heightens concerns on "function creep," the gradual widening of a technology's data collection practices beyond its initial, intended purpose. As self-tracking becomes increasingly intertwined with productivity metrics, the potential for such data to be exploited by others, such as managers or intimate partners, rises in turn (Levy 2019; Lupton 2016).

Further interrogating mediated employee supervision, recent STS scholarship examines emergent modes of algorithmic management. Centered on the possibilities of remotely managing workforces through surveillance and automated decision tools, algorithmic management marks a separation from earlier structures that rely on human supervisors to observe and direct workers' activities (Mateescu and Nguyen 2019). Through connected devices, continuous flows of data enable forms of automated decision making that seek to optimize workers' daily routines. For rideshare drivers or hotel staff, this might take the

form of real-time route optimization or automated scheduling (Ticona 2015; Ticona, Mateescu, and Rosenblat 2018). Remote monitoring can take a punitive turn as with the case of janitorial staff and connected restroom soap dispensers logging "compliance," or if an employee washes their hands in accordance with company policy (Fox, Sobel, and Rosner 2019). Premium "attention-tracking" features embedded in the video conferencing platform Zoom similarly notify employers when attendees have navigated away from the platform for more than thirty seconds (Krolik and Singer 2020). With the case of Ovia and other contemporary menstrual tracking apps, internalized monitoring practices under the guise of self-care may complicate the intimate politics of concealing (or disclosing) pregnancy, where employee discretion is less available and pregnancy discrimination harder to trace. Ovia's corporate-facing pitch indeed promises to usher pregnant employees back to work as soon as possible and track menstrual changes to avoid costly healthcare expenditures, causing many health and privacy experts to warn that even aggregated data could put workers at risk. Such technologies shift longstanding power relationships between worker and manager, such that procedures are more opaque and less available to appeal.

Enterprising the Self

Sociologist Catherine Rottenberg (2014) charts the rise of neoliberal feminism, or feminism mobilized to enhance market value, through the publication of a set of widely read "feminist manifestos" from prominent US figures such as former Hillary Clinton advisor Anne-Marie Slaughter and Facebook COO Sheryl Sandberg. To Rottenberg, neoliberal feminism is embodied in this form of the "high-powered woman who manages to balance a spectacularly successful career with a satisfying home life" (2014, 428). This theorization is different than Rosalind Gill's notion of postfeminism—similarly focused on choice and empowerment, it instead denies a feminist label (Banet-Weiser, Gill, and Rottenberg 2020; Gill 2007). The neoliberal feminist subject may indeed recognize gender inequality represented through pay discrepancies or sexual harassment but denies the systemic role that sexism has in shaping her life. Messages from Slaughter and Sandberg are directed toward middle-class white women who aspire toward individual pursuits of happiness, "leaning in" to career ambitions, and striking a balance of both professional success and a fulfilling life. This push toward individual advancement, Rottenberg argues, "reorients women away from conceptions of solidarity and towards their own particular development, which, to stay on 'track' as it were, requires constant self-monitoring" (2014, 426). Uninterested in social justice, mass mobilization, or making demands of the government, the neoliberal feminist subject is atomized, self-optimizing, and entrepreneurial, assuming responsibility for her well-being and self-care toward personal innovation and marketability (Olufemi 2020).

Such expanded projects of self-care serve the interests of biopower and gender retrenchment, according to political scientist Rachel Sanders (2017). Extending the authority of public health and beauty regimes, self-tracking protocols often subscribe to and reify existing bodily ideals and norms (rather than trouble them). The essentializing nature of contemporary apps and technologies is rooted in the history of endocrinology and what Nelly Oudshoorn (2003) terms the "hormonal enterprise." Through representation in terms of cycles, for example, there is "an abstraction from the bodies of individual women to the universal category of a physical process" (Oudshoorn 2003, 136). Celia Roberts (2002) draws on notions of embodied knowledge to argue that the "hormonal body" itself is in fact located, tied to the networks of actors that make up the disciplines that develop the theories and practices of endocrinology. Menstrual tracking is similarly inseparable from modes of cultural and economic production that surround it. Here, we trace new scientific endeavors that link menstrual tracking with efforts to reduce inefficiencies from the top and later transform into a means of individual advancement. Across the sections that follow, we examine the work of actors within the space of early industrial hygiene through to the contemporary wellness industry in order to understand and resist contemporary practices and to produce ways of being otherwise.

Accounting for Absenteeism

In 2019, an obstetrics and gynecological research team out of the Netherlands published an article in the *British Medical Journal* that purported to measure the loss of productivity and absenteeism among over 30,000 women and girls between the ages of fifteen and forty-five (Schoep et al. 2019). Gathered from surveys distributed through social media, the study's findings suggest "an average productivity loss of 33% resulted in a mean of 8.9 days of total lost productivity per year due to presenteeism" (Schoep et al. 2019, 1). Drawing on these figures, the authors conclude by emphasizing the need for a set of policy changes within work and school settings, such as offering the option to take on "less physical" tasks, the ability to do remote work, the allocation of more time for personal care, permission to make up for "lost days," or the right to take a day off without consequence (Schoep et al. 2019). These findings quickly circulated across a variety of consumer science sites and news outlets, with provocative titles such as "Period Pain Linked to Nearly 9 Days of Lost Productivity for a Woman in a Year" from *CNN* (Hunt 2019), "Productivity Loss Sizable with Menstruation-Related Symptoms" in *Physician's Weekly* (Health Daily Staff 2019), and "Study Finally Shows How Disruptive Period Pain Really Is" published in *Science Alert* (Armour, Curry, and MacMillan 2019).

On the surface, this report might seem to make a welcome call for workplace accommodations, but it is worth considering the deeper implications of this work. Strikingly similar to questions posed by researchers working within the field of

industrial hygiene over the past century, this publication marks a continued effort to prove that menstrual symptoms are somehow linked to workplace deficits unique to women. In a critique of scholarship on menstruation and work, historian Siobán Harlow argues that the question of "inherent weakness" (rather than other factors such as hazardous conditions) has long defined the focus of such work studies (1986, 42). A multi-part project from Anthony J. Smith (1950a, 1950b), for example, measured productivity along identical dimensions to those of the study published in *British Medical Journal* but was conducted some seventy-five years earlier. As late as 1981, *Novak's Textbook of Gynecology* argued that dysmenorrhea was the most frequent cause of lost work time, responsible for 140 million "wasted work hours" each year (a figure left uncited) (Jones and Jones 1981, 871; Harlow 1986, 43). Despite decades of studies, Harlow argues, there remains no proven correlation between menstruation and compromised work quality or efficiency.

Researching and regulating difference

Efforts to attribute quantifiable loss to those experiencing symptoms of menstruation share commitments with other campaigns to reinforce separate spheres ideology, or the belief in biologically determined gender roles and that women should have limited access to domains of public life (Baron 1981). Alongside early workplace studies, lawmakers sought to institute "protective legislation" that formally regulated women's participation in paid work settings. On the face of it, many of these laws appeared beneficial to workers. A shortened workday, for example, and an imposed minimum wage for women and children seemed in line with general employee welfare and were supported by some women's rights advocates at the time (Baron 1981). But these policies treated women as homogeneous, forbidding certain activities such as lifting heavy loads (strikingly similar to Schoep et al.'s call for "less physical" tasks) or working nights. Though purportedly enacted to protect women from hazardous labor practices, the laws did not require changes to work conditions, nor did they apply to workers generally. Rather, they served as a basis for denying women roles in certain fields of labor and from earning overtime pay. Notably, these changes did not protect wages, nor did they apply to unpaid work (leaving domestic and care labor unregulated). The concern then was not with protecting women as workers, but the social definition of women and their role in the nuclear family. In fact, proponents of this legislation were quite open about their aims of preventing what they perceived as the erosion of the family structure and ensuring the health of "potential-mothers-of-the-race," seeking to make evenings free for housework or simply confining women to the home (Baron 1981, 32). Such views were seemingly widely held. In the 1908 Supreme Court case *Muller vs. Oregon*, for example, Justice Brandeis filed a lengthy brief filled with "empirical evidence" from health inspectors, physicians, social scientists, and industrial experts supporting the lower level court's decision to prioritize the "sanctity of the family" (Baer 1978, 57; Baron 1981). Under this legal paradigm, women were treated as a

separate class whose primary function was as mothers (even if they did not have children) and whose rights were secondary to the health of future generations.

Early instances of workplace menstrual tracking offer a glimpse into how social science research fed and promoted such notions of difference that indeed harmed workers. Across the early twentieth century, as middle-class white women were newly coming into waged labor, corporate-sponsored research programs sought to understand the role of menstruation in their working lives. Often operating under the guise of wider "industrial hygiene" campaigns, these efforts sought to understand and exploit perceived differences in performance between men and women on the job. Sometimes these initiatives were conducted by in-house teams, and other times researchers and health practitioners were called in to support the extension of the managerial gaze onto the menstrual and reproductive health of workers.

In 1928, for example, the Metropolitan Life Insurance Company began conducting research into the absences of women clerks who were newly occupying the workplace (Ewing 1931). Dr. Ruth Ewing, a medical researcher, was recruited to lead the effort and later reported on their research procedure and findings in the *Journal of Industrial Hygiene*. As she described it, there was concern on the part of the company about the perceived frequency of women staying home from work and additional time spent in the restroom during their periods. The study was a part of an effort to "correct the situation" (Ewing 1931, 245). When enrolled, employees were instructed to report the number of hours of discomfort they experienced during menstruation, the location and type of pain, any vaginal discharge, and instances of constipation (not unlike in the menstrual tracking app protocols of today). They were then given a regimen of daily exercises (involving some form of contraction and expansion of their lower abdominal muscles), prescribed a diet based on their degree of pain, and subjected to ongoing evaluation of "psychologic factors" (e.g., "self-discipline"). Additionally, a physiotherapist instructed them to undress, their silhouette was traced in outline, and they were graded on their posture (see Figure 1). Employees had weekly check-ins and those who did not report reduced pain within four months were also subjected to rectal and vaginal exams. Through this practice, we can see how company monitoring projects made visible, intervened in, and shaped employees' bodies.

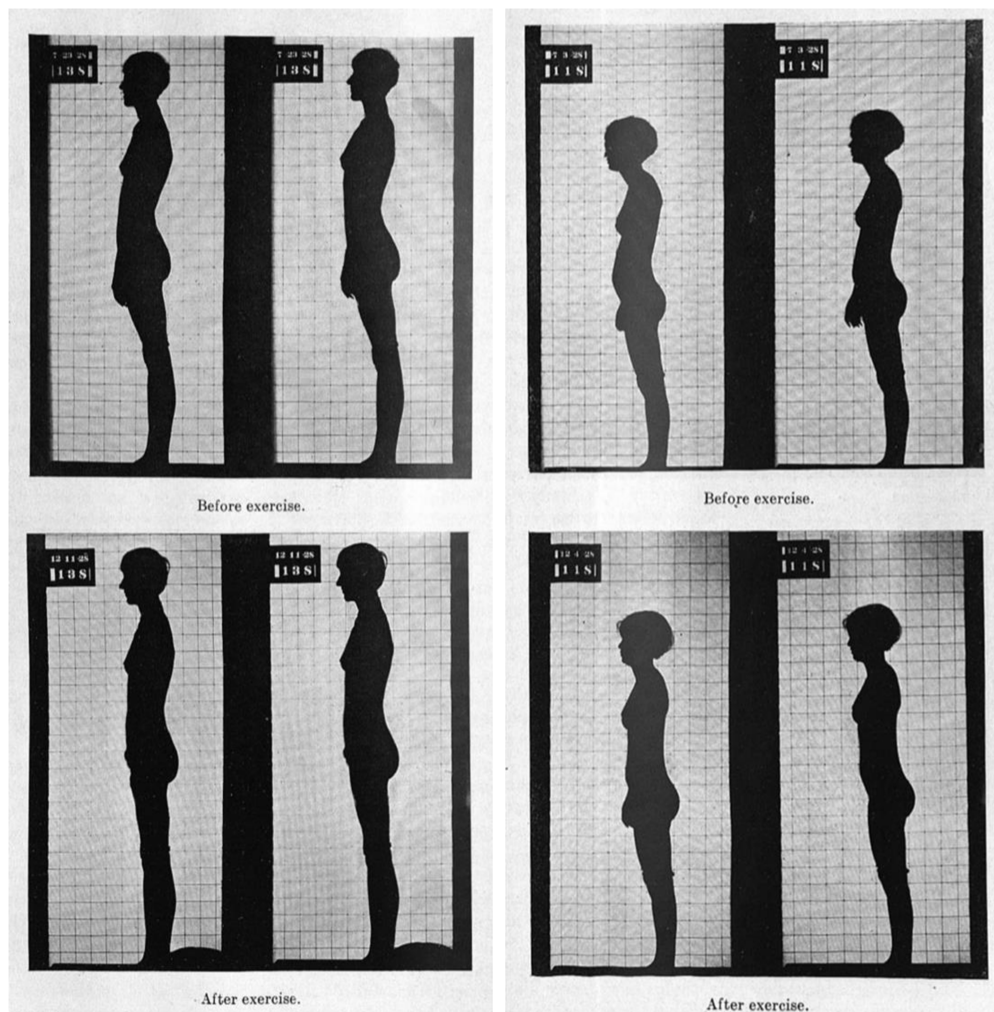

Figure 1. Silhouette images of two Metropolitan Life Insurance Company employees enrolled in corporate-sponsored research on dysmenorrhea.

Employees were enrolled in the study between eight months and two years before they were allowed to stop supervised exercises. Though a reported 90 percent benefited from the treatment, it should be noted that their employment was contingent on their participation in the study and the only way to discontinue participation was by indicating that they felt less pain. Ultimately, Metropolitan Life saw the reduction in "time lost" that they had sought to promote, with absences dropping from three days per month to half a day per month, and visits to the restroom from "7.1 per month per 100 females in 1924 to 2.3 in 1930" (Ewing 1931). The results were reported on by Ewing as a win across parties (workers and the company), where employee pain was reduced and leaves were curbed.

In an earlier example, historian Lara Freidenfelds (2009) describes a study launched by an Ohio rubber company to assess whether women office workers

deserved a consistent salary to men who occupied the same position. With a similar concern for absences, the company's research director motivated their study by claiming that women lost 6.02 percent of their available work time, while men only missed 2.42 percent. The research centered on a hired nurse who visited the homes of women who were out on a given day to report discrepancies between said and "real" causes of their absence. Here, of course, the nurse's statement was taken over the employees', and the study concluded that 17 percent of women's absences were the cause of "ailments particular to women only" (Freidenfelds 2009, 85). With this, the company concluded that though women "may be intellectually competent to undertake all vocations…they do not deserve the same pay as men" (Freidenfelds 2009, 85). Moving from simply interrogating women within the context of the workplace, researchers at the rubber company refused to take workers at their word, sending company representatives into their homes to detect inconsistencies and aberrations.

This century-long tradition of measuring absenteeism and presenteeism is based in sexist presumptions. From the Metropolitan Life Insurance Company's study of employee dysmenorrhea to Schoep et al.'s (2019) contemporary examination of absenteeism, the historical lineage of this work perpetuates sociobiological notions of difference. Schoep et al.'s finding that women and girls experience a "nine-day productivity loss" confirms ingrained attitudes of menstruation bias in the workplace. Despite the study's claim of benefiting women, the article begins by defining the financial burden posed by menstrual absenteeism and presenteeism to employers, not unlike dozens of studies that preceded it. As Harlow argues, the failure to develop an analytic tradition that moves beyond the search for how much productivity is impacted by menstruation only reflects the "historical presumption of inherent weakness" (1986, 46). The successful development of a new analytic tradition, she argues, would similarly require an entirely new premise.

Hormonal Advantage

Against the backdrop of contemporary menstrual deficit debates, a particular brand of entrepreneurial feminism has manifested within the domain of menstrual wellness and advocacy. Attorney Jennifer Weiss-Wolf (2017) recently chronicled this surge, as well as a broad range of other entrepreneurial and legislative activities in the space of menstruation, in her book *Periods Gone Public*. In its final chapter, she shares her vision for the future of "menstrual equity," through speculation on hybrid corporate-policy initiatives and the notion of "menstrual leave." A controversial topic among scholars and activists in this space, menstrual leave would involve paid or unpaid leave from employment while one is menstruating and experiencing dysmenorrhea (Evans and Smith 2017). While some—like Weiss-Wolf—welcome the push for such policies, others see it perpetuating sexist norms around women's fitness to participate and

advance in waged labor (Levitt and Barnack-Tavlaris 2020). In imagining how such a policy might exist, Weiss-Wolf proposes company-led "cycle awareness" programs, where menstruation would be viewed as a "force to be leveraged and harnessed" toward business goals (2017, 359-360). As she sees it, individual employees would not only be given the option to take leave on days when they experience pain or other symptoms, but also be nudged to participate in particular activities during other phases of their cycle. For example, she states, the "ovulation phase is the best time for giving a presentation," so managers would be prompted to tap employees at this point in their cycle for such responsibilities (359). To Weiss-Wolf and other prominent menstrual equity proponents, "menstrutopia" can be found in enumerating the impact of menstruation on employees' work habits, taking up a kind of assets and liabilities model in assessing variations, and deploying an "affirmative work and life coaching tool" to optimize for individual differences. Put simply, Weiss-Wolf states, the idea is to provide employers with "a fuller picture of the natural ebbs and flows that guide our bodies and lives" (359).

Achieving Flo

Elsewhere in New York City, similar approaches to "cycle awareness" are being rehearsed and marketed by self-proclaimed hormone-health expert Alisa Vitti. Through interviews with the popular press, Vitti frequently tells the story of overcoming polycystic ovary syndrome through tireless personal research and subtle lifestyle changes such as food consumption and exercise. From this experience, she has built a brand around what she calls the "Flo Protocol," or a "female-centric protocol that considers your whole being—mind, body, and spirit—and each phase of your cycle" (Vitti, n.d.). Drawing on discourses of progress, she endorses adopting a biohacking mindset to achieve "optimal hormonal flow" (Vitti 2020, 150). Not only does the approach promise to help women "crack the code" on their hormones (185) and alleviate symptoms, but it is also positioned as enhancing one's time management abilities, work productivity, and relationship satisfaction. Dotted with testimonials from customers of her Manhattan-based wellness center, both of Vitti's books—*Womancode* (2013) and *In the FLO* (2020)—attest to the success of her method in helping women become pregnant, increase their libido, or reverse urinary tract infections. In many ways, Vitti embodies Rottenberg's neoliberal feminist figure, from an established career in marketing to forging an integrated health enterprise with a dedicated wellness center, virtual health consultancy (with rates at hundreds of dollars a session), a subscription supplement service (totaling roughly $1,200 a year), a series of widely read books, and a smartphone application.

Directed toward business-minded women, the universalist impulse of Vitti's claims become clear across her pages. In her most recent book, for instance, she dedicates a single paragraph to discussing the suitability of the protocol for transgender readers. Noting that they "may not fit into a traditional gender box,"

she urges trans women to follow her method in order to "feel more connected to [their] feminine energy even if [they're] not menstruating" (Vitti 2020, 7). Vitti makes room for trans audience members only so much as they are instructed to contort to her own understanding of femininity and self. Homogenizing in a similar sense to earlier industrial hygiene research, the category of women is fixed.

Vitti markets making one's "hormones work for you to help you sustain your energy, creativity, and productivity regardless of the demands of your schedule" (Vitti 2020, 186). It is essential to her that "women's needs," in the form of hormonally relevant tasks and project cycles, are accounted for in the workplace. Echoing her neoliberal feminist contemporaries, Vitti argues, "when each individual increases her own awareness of her biological rhythms, collectively leveraging that awareness will create a much more efficient process for everyone" (Vitti 2020, 191). Better working conditions then trickle down from the high achieving top.

She argues that the organization of work time is centered on a masculinist agenda, one that is embodied in a competing hormonal clock. "How do you incorporate your second clock into our corporate culture, which has been operating on a single clock for centuries?" Vitti asks in *Flo-Living* (2020, 183). If organized around the phases of one's own, individual cycle, Vitti explains, one can optimize work by performing the right tasks for each stage. Here, we can think of flow occupying a double meaning. Of course, referring to the colloquial term for menstrual cycle, but also a sense of flow derived from the state of higher consciousness psychologist Mihaly Csikszentmihalyi (2008) describes, where one achieves "optimal experience" through intense, concentrated attention. To reach hormonal flow, one must attune daily activities to an inherent rhythm humming under the surface. The follicular phase, according to Vitti, is when estrogen boosts the brain's working memory and is thus an ideal time to focus on new projects or start a new business. The ovulatory phase, on the other hand, is time ripe for networking or giving presentations, as one's "communication powers" are in tune. The luteal phase is when one is most detail oriented and when one's desire to complete tasks or finish projects is most acute. And finally, the menstrual phase, Vitti notes, is most ideal for evaluative tasks or planning. Tuning into one's "feminine clock" via tools like the "Work FLO" chart allows for Flo devotees to drive both individual and corporate growth. "By learning to focus on doing one thing at the ideal time rather than trying to do everything at once," Vitti attests, "you will become more efficient, get into flow mode more often, and boost your overall performance" (2020, 197). Though Vitti notes it is possible to accomplish tasks out of sync with one's internal rhythms, the drain on one's energy is said to be substantial.

Vitti compares the shift of working through "natural" rhythms to tech giant Google's turn toward open office design, which involved a push for flexible workspaces over dedicated, individual offices (2020, 195). Yet, an interview study released about two years before the publication of the book found that this approach to office reorganization leaves women feeling perpetually surveilled and newly scrutinized (Hirst and Schwabenland 2018). Vitti also points to Google as a model for parental leave (2020, 196), though recent activism again defies this (Franceschi-Bicchierai 2019). A large-scale employee walkout at the end of 2018, for example, galvanized thousands of employees in response to the company's gross mishandling of sexual harassment (Wakabayashi et al. 2018). The company's repeated firing of transgender employees organizing for the right to know whether they are involved in building the war machines (Wong 2019) also casts layers of doubt on Vitti's positioning of Google as bastion of gender justice.

Though work perpetually takes place in a corporate setting in Vitti's imagination, it is not difficult to imagine how her Flo protocol might break down in other contexts. Those in the service and retail industries (disproportionately occupied by women of color), for example, are less likely to have the luxury of dictating their own tasks and often work under increasingly sporadic shifts due to the popularity of on-demand scheduling (algorithmically developed work schedules drawn up at short notice). As there are no federal policies ensuring access to leave or workplace flexibility within the US (where Vitti is based) (Glynn, Boushey, and Berg 2016), lower- and middle-income workers have no place in Vitti's protocol. Within the context of Google and other seemingly progressive tech workplaces that Vitti holds up in her text, gig and contract workers often lack the right to bargain for fairer wages (Lapowsky 2019) or protections from toxic exposure (material or psychological, as with manufacturing and content moderation respectively (Rifat, Prottoy, and Ahmed 2019; S. Roberts 2019)). Even when accounting for the ways the protocol lacks consideration of most workers, the question of why the push to be more efficient remains. Inherent in Vitti's perspective is the myth of middle-class ascension, or the idea that workplace productivity will lead to a corresponding rise in professional status and self-actualization—a guarantee that has been proven hollow at best, and more often exploitative, for workers of color (Melamed 2006).

Though Vitti, Weiss-Wolf, and other advocates position workplace menstrual tracking as something novel and well-suited for "open-minded progressive workplaces" (Weiss-Wolf 2017, 361), writer Karen Houppert (2017) points out that the menstrual underwear company Thinx had already begun to use this approach. The company's employees shared their cycle data and then-CEO Miki Agrawal announced to the organization when she herself was ovulating. Yet, not six months after Weiss-Wolf's book release, Agrawal was ousted from the company after an employee filed suit against the "She-E-O" with accusations of sexual harassment, and others detailed instances of workplace gender discrimination in

the public press (e.g., pay discrimination, poor healthcare coverage, lack of parental leave policy) (Malone 2017). Shared tracking did not unlock some lost work potential trapped in the menstrual cycle or open up managers to new understanding of their employees. Rather, the rhetoric of individualized self-care and empowerment that surrounded the rollout of this program hid the ways in which the company exploited its workers and undercut the very interests it purported to support (e.g., workplace gender equity, improved healthcare outcomes).

Not immediately evident in this refinement of the menstruating body and its care are the disciplinary and surveillant consequences of these technologies, or the biopolitics they extend. What is to be made of the body in conflict with work time, when it is made to appear so easy to manage? A recent American Civil Liberties Union suit described a case in which Alisha Coleman was dismissed from her decade-long position as an emergency call taker in Fort Benning, Georgia, for her supposed inability to "practice high standards of personal hygiene" (Chandler 2017) after experiencing two incidents of sudden-onset heavy menstrual flow (for her, a symptom of perimenopause), which resulted in stains to an office chair. In a related case, model Rachel Rickert reported being dismissed from her role representing the car manufacturer Hyundai at the New York International Auto Show after asking for time to clean her stained uniform. She was told to instead leave the hourly position early to deal with her "period situation," and later let go from the job entirely (Johnson 2019; Marsh 2017). Across these examples, we see how visions of the perfectly managed body through menstrual technology become differently issued across lines of race and class, with some having more latitude to address breakdowns when they occur. For Vitti, they unlocked an opportunity to disrupt the $15 billion menstrual market, for Coleman and Rickert they were grounds for firing—celebrated when they help realize enterprising elite subjects, punished when they are the result of a perceived lack of self-governance.

Conclusion

In the past, outward justifications for company-sponsored menstrual tracking focused on preserving the "delicacy" of white women and their reproductive futures. In contemporary cases, liberal feminist advocacy centered on "menstrual equity," economic independence, and social equality upholds programs of corporate wellness as creating fairer work environments. But looking across cases from the near and more distant past tells another story. Thinking back to the opening of this article, Ovia offers employees access to a suite of insights and fertility tools that promise the ability to "have it all," while employers surreptitiously track ever more granular data about workers' lives. Similarly, Metropolitan Life's multi-year study assured employees that their dysmenorrhea would be alleviated with company-sponsored exercise regimens and invasive weekly check ins, focusing on the "inefficiencies" rendered by the pain and

discomfort of the condition. Digging into how the data was collected and used across these sites allows us to see a through line, where workplace tracking programs surveil and subvert (e.g., gendered pay discrepancies, caps health insurance premiums or forms of coverage offered, and wrongful firing), rather than support workers.

Docile bodies to unruly ones

Rather than a novel self-help technique, contemporary menstrual wellness programs extend the scale and scope of exploitative corporate management. Why then would feminist figures of today promote similar modes of bodily accounting, where more intimate details of daily life are rendered visible to company representatives? The past can offer insight into how this data might be leveraged—toward discriminatory practices, rather than increased workplace access or equality (Hoffmann 2020). Are the proposed advantages of tracking (e.g., a more personalized work schedule or relevant tasks) worth the potential loss of data privacy? For Vitti, the answer lies in a belief that women possess the biologically innate ability to perform well within a corporate context. Calling on her customers to tune into hidden hormonal rhythms via her protocol, she promises the ability to achieve the fabled "balance," a creative career, optimal health, and a satisfying personal life. Rather than questioning what might make achieving such a fulfilling life so challenging in the first place, she pushes her audience toward taking more responsibility in remedying the harms of capitalism (fatigue, wage inequality) through processes of self-tracking.

Within a framework of corporate or neoliberal feminism, the meritocratic advancement of individual—often white, cisgender—women is celebrated for reaping rewards in the market. Yet this means little to those who continue to be exploited by economic conditions and social hierarchies that devalue their labor. A feminist undertaking in line with liberatory struggles for gender and racial justice would seek to undo these forms of subjugation, not reproduce them as assets (Hobart and Kneese 2020). Rather than conditioning the body such that it can be optimally productive by corporate terms, feminist modes of tracking on the job might privilege collective data gathering meant to advocate for fairer working conditions across role or status. Khovanskaya et al. (2019), for example, draw on the history of predigital labor advocacy to surface strategies used by garment workers to mitigate and selectively take on techniques of scientific management (e.g., time studies used to negotiate piece rates), tracing implications for contemporary data-driven worker advocacy. In a more recent case, the rideshare drivers cooperative Driver's Seat developed a smartphone application to run in parallel with black-boxed corporate counterparts Uber and Lyft (Dickey 2020). In gathering ordinarily hidden information about changes in pricing and routing, drivers are able to assemble data to bargain for better conditions across the industry. Through these cases, we see a focus on data collection as means of building coalitions across lines of precarity and establishing counterpower to push

for improved compensation and livable conditions. Tracking may then indeed have a role to play within the workplace, but in holding companies accountable rather than optimizing for the most "productive" self.
Considering again the debate around "menstrual equity" promoted by Weiss-Wolf and others, how might we engage with the topic through a lens of tracking and collectivism (rather than individualism)? While some companies already elect to stock their restrooms with menstrual products and pain relief medication or carve out wellness spaces, these are but one-off responses that often benefit those already in positions of wealth and status (e.g., working in tech offices). As Rachel Levitt and Jessica Barnack-Tavlaris (2020) note in the recent *Handbook of Critical Menstrual Studies*, there is a need to focus on ways in which menstrual leave may indeed lead to outcomes counter to menstruators' interests or well-being, or how such policies open up a space for further targeting and discrimination in the form of hiring or wage penalties. Rather than tracking individual workers, for example, could data analytics and machine learning extend mechanisms for ensuring corporate compliance with workplace protections? Much like fraud detection software seeks out anomalies and inconsistencies in healthcare claims, might we instead imagine platforms that surface likely instances of wrongful termination? In this, we could consider the role of tracking and predicting corporate misconduct such that it supports wider regulatory efforts and provides evidence for workers' claims.

Other approaches might assume a more oppositional stance, using tracking techniques to publicly shame employers into adhering to more robust protections or dismantling their use of invasive technologies. Consider, for example, Anti-Eviction Mapping Project's recent initiative Landlord Tech Watch, which geographically plots cases of tenant surveillance—at once illustrating the scale of the issue and allowing one to view finer grain detail such as the name of the property management company or type of technology used (Anti-Eviction Mapping Project 2020). Alongside strategies of "watching from below," workers might extend modes of mutual aid by conveying workplace rights and sharing material support with colleagues and community members. Contratados, for instance, inverts the format of online rating platforms by opening space for workers to share their experiences with particular actors involved in exploitative low-wage labor recruitment on the US-Mexico border (Centro de los Derechos del Migrante 2020). In looking to and learning from existing cases, we can begin to imagine how workplace tracking might take on a different tenor, one focused on obstructing the managerial gaze and turning tracking back on those who would use menstrual data to exploit and harm employees (Benjamin 2019).

Broader still, protocols that encourage reading wellness through productivity serve a regime that binds care to wealth. Researchers submitted white working women to invasive examinations under the banner of efficiency. Black and Brown women have and continue to be exposed to invasive gynecological procedures on

an entirely different scale of subjugation and pain, as means of social control and abandon (Bailey and Peoples 2017; Nelson 2011). Recent efforts to position health and risk management practices as tasks to be taken up by the individual open up new opportunities for gendered and racialized exploitation. Tracing these histories allows us to recognize how current techniques reproduce violent conditions, and the stakes involved in articulating self-care otherwise.

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