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Natural Hegemonies

Sleep and the Rhythms of American Capitalism

by Matthew Wolf-Meyer

American capitalism finds its force and legitimacy in hegemonic understandings of nature and society, especially as expressed in human biology. In this article, I address the ways American capitalism depends on the deployment of sleep and wakefulness within the institutional contexts of school and labor, with particular attention to the recent medicalization of sleep disorders. Across American institutions and social science literature, I argue that sleep, like capitalism, has been discursively ascribed the powers of inevitability and universality, rendering them both transhistorically natural. To make these claims, I draw on ethnographic research in sleep clinics with scientists and clinicians, interviews with disordered sleepers, and textual and policy analysis. In conclusion, I offer suggestions toward elucidating the historical and continuing biopolitical projects of capitalism.

Neither Society nor Nature: Insomnia

Betsy called herself an insomniac. At the time of our interview, she was in her early 50s and, though young by contemporary career standards, had just retired due to irresolvable sleeplessness. She had spent her professional life in public affairs and advertising in various Chicago firms, working 60-hour weeks, commuting two hours each day, and spending what limited time she had at home with her children and husband. During the 30 years she had spent in the workforce, she had consulted numerous doctors for help with her problems sleeping but never found a solution she was content with. She described her sleeplessness:

It made work difficult. It made me take drugs that I didn't want to take. But I couldn't manage my insomnia without taking drugs. I've had very demanding jobs, and I needed to be sure that I could function. Some people, I guess, can function well with little sleep, but I just don't function well with little sleep. . . . And as I look back, I think I would have made different decisions about work . . . and I probably would have done better with a less demanding job. I don't think [pharmaceutical use is] good for you; I think it messes with your brain.

Betsy's case was exceptional, not as an insomniac but as an insomniac who could jettison the obligations of work early in life: because of economic support from her husband and

having already ensured that her children had made their way through school and established themselves in careers and with families of their own, Betsy had earned her ability to leave the workforce. However, Betsy's experience of insomnia was itself unexceptional. Like many other insomniacs I interviewed,¹ Betsy confronted recurring difficulties with the medications she was prescribed, foremost among them psychological dependence and chemical immunities, leading to the rotating use of prescription medications. She explained her life since retirement as a reaction to the pharmaceutical ordering that the obligations of working forced on her:

Therapeutically, what have you tried?

Oh, lots of drugs. Lots and lots of drugs. Everything from benzos to Xanax, antidepressants, and all the tricyclics. . . .

1. This paper is based on research conducted at a sleep disorders clinic as well as among sleep-disordered patient support groups. In addition, some participants were solicited through Web sites that focus on sleep disorders and social and medical support (especially Talk about Sleep). I was welcomed into my primary fieldsite—the Midwest Sleep Disorder Center (MSDC) at the Mississippi County Medical Center (MCMC; both pseudonyms)—in part because of my perceived ability to step outside of the disciplinary boundaries of the researchers and clinicians I worked among. As a group, the physicians at MSDC had become interested in the social and cultural dimensions of sleep, and my working with them often entailed reporting on my ethnographic, ethnologic, and archival research for their edification. Over the ensuing 30 months, I attended weekly staff meetings, local support groups, and national professional meetings and spent nights in the clinic while observing patients sleep; each of these sites also served as a mechanism to recruit interviewees, including patients, their bed partners, clinicians, researchers, and support group facilitators. This, in turn, was succeeded by a year of research in the Chicago area, primarily with sleep disorder support groups, and sustained archival research in the Nathaniel Kleitman archive at the University of Chicago (Kleitman was the father of twentieth-century sleep science).

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Let's see; I've even taken muscle relaxers mixed with other drugs. And they're effective for a while, and then they all wear off. I've taken them for years, and when one stalls out, I go back to the doctor and get a new drug. And drinking [alcohol] helps. But I know better than to do much of any of them. . . . I would get dependant on all of this stuff, and when it came time to change, I would need to wean myself off of it.

How are you treating it now?

I am off all drugs. Since I moved here [to the suburbs of Chicago] about five years ago, I am no longer working. I retired early. And so I have a lot more flexibility of time, I don't have to get up early in the morning, and I don't have the stress of a job. . . . I've been messing around with my insomnia since my life has changed a lot. And I just decided—about a year ago—to go off all drugs. Nothing seemed to be working. I mean, nothing worked for a long time without side effects. . . . It took about six months to get totally weaned off everything, so now I just practice good sleep hygiene.

Most insomniacs I spoke with over my four years of research (2003–2007) struggled to fit in, that is, to regulate their heterodox sleeping patterns in order to integrate fully into the broader spatiotemporal and economic regimes of contemporary American society. Betsy's ability to treat her insomnia without pharmaceuticals and caffeine but rather through the social management of her everyday life is remarkable. For Betsy, living with both insomnia and a more than 9-to-5 work schedule meant being chronically sleep deprived. This sleep deprivation led her to invest herself fully in the pharmaceutical regimes of contemporary social life through reliance on sleep-inducing and alertness-promoting chemicals. Insomnia-as-illness is only one aspect of the contemporary relationship between sleep and work in American society;² the use of caffeine and other alertness-producing chemicals is its complement. These two forms of sleeplessness—both biological, both social—allow purchase into the changing and particular qualities of American capitalism as it has developed since the mid-nineteenth century, here emblemized in the chemical and social predicaments that the sleepless and the sleepy find themselves mired in.

In this article, I track relationships between American capitalism, seen here as a formation that finds its rationale in discourses of nature, and perceptions of human nature, both lay and scientific. How do ideas about the naturalness of human biology get mapped onto conceptions of capitalism? How are these ideas particularly cultural, particularly Amer-

ican? What kinds of bodies—individual, social, and political—are produced through these projections and embodiments of nature? In pursuing these interests, I focus on the explanatory powers of the hegemonic functions of nature. Compliance with natural hegemonies depends not on influence over the hearts and minds of individuals but on alterations to their chemistries and physiologies. Control through medical intervention is the frequent technique of this form of social power, which finds its logic in nature (Deleuze 1995 [1990]). I begin with an exploration of natural hegemonies as an analytic. Next, I turn to the spaces in which the hegemony of sleep's nature has been constructed and deployed as a means for understanding social life: first in the lives of an American couple in their 50s and second in the broader field of the American workplace and its global connections. I suggest that one of the effects of hegemonic understandings of sleep's nature in the United States is that American capitalism is able to find its ideological potency in the recursive uses of human biology and nature, thereby lending capitalism both a transhistorical status and legitimacy. Although I can only hint at this herein, this article is one part of a larger project exploring how American capitalism produces human biologies that accord with its claims and ends. I believe that it is through these productions that, ultimately, the rationales of American capitalism are constituted as inevitable, as natural, and as reflective of and reflected in American bodies.³

Insomnia provides a compelling example of the embodiments of American capitalism because its identification, treatment, and definitions have been shaped by historical shifts in American understandings of medicine, science, the state, the economy, and the modulating roles of human bodies in these institutions. Nowhere is this more obvious than in the past 15 years. As the National Sleep Foundation (NSF), an advocacy group promoting popular awareness of sleep and its disorders, documented in its 2002 "Sleep in America" poll, 58% of Americans identify one to four of the symptoms of insomnia as occurring in a given week, with 35% of respondents claiming insomnia symptoms running an entire year (NSF 2002:7). The symptoms that are identified as related to insomnia include "difficulty falling asleep, waking a lot during the night, waking up too early and not being able to get back to sleep, and waking up feeling unrefreshed" (NSF 2002:7). In polls like this, the NSF uses popular categories such as "insomnia" rather than clinically precise categories: "primary insomnia" for difficulties falling asleep; "secondary insomnia" or "sleep maintenance insomnia" for waking in the middle of the night; and "fragmentary" sleep architecture, or frequent awakenings, for a lack of deep sleep. In other words, the NSF's definition of insomnia brings together a set of symptoms that might be viewed as physiologically distinct. Why? These various disorders come together under the rubric of insomnia

2. This is an analytic distinction particular to medical anthropology. On the difference between disease, illness, and sickness, see Arthur Kleinman's (1988) discussion in *The Illness Narratives*, Allan Young's (1982) critique of the categories, and Michael Taussig's (1991) eventual supplanting of them. On the subject of insomnia as a symptom of contemporary American society, see Steve Kroll-Smith's (2000, 2003) series of articles on the medicalization of sleep.

3. I discuss this claim at much greater length and in more detail in "The Nature of Sleep" (Wolf-Meyer 2011) and *The Slumbering Masses* (Wolf-Meyer 2012).

in popular understandings because they share treatments, namely, sleep-inducing medications.

Since the late 1990s, a number of new drugs have been released as prescription sleep aids, including Ambien, Rozerem, Sonata, and Lunesta. In addition, other over-the-counter pharmaceuticals, such as Tylenol and Advil, also began to offer versions that included mild sleep aids in the form of antihistamines; treatments for cold and flu also developed versions intended for daytime alertness and nighttime sleepiness. Sleep inducement and alertness promotion could thus be purchased as both primary and secondary effects of drugs. These innovations have produced significant profits for pharmaceutical companies. For example, Sepracor's sleep aid Lunesta registered \$143 million in sales by the second quarter of 2007.⁴ During the same period, Sanofi Aventis's Ambien and Ambien CR sold a total of \$190 and \$385 million, respectively, despite reports of dangerous side effects (Cochems, Harding, and Liddicoat 2007; Liddicoat and Harding 2006; Valeo 2006).⁵ Between 1999 and 2006, Cephalon's Provigil, a drug primarily for narcoleptics but now used for "excessive daytime sleepiness," made \$2 billion in accumulated sales. Additionally, coffee sales in 2004 amounted to \$19 billion,⁶ the Coca-Cola Company reported \$15.6 billion in sales,⁷ and PepsiCo reported worldwide sales of approximately \$17 billion in Pepsi-Cola alone.⁸ Putting societies to sleep and waking them up have become profitable businesses since the late 1990s. Indeed, the new sleep aids have had marketing budgets exceeding those of popular drugs before them, particularly drugs treating depression and erectile dysfunction.⁹

One interpretation of these recent events might be that sleep is now being medicalized, but I propose another. The medicalization thesis argues that those aspects of human beings now considered pathological and that thereby need medical treatment were once considered natural (Conrad 2007); the availability of medical technologies and a host of cultural assumptions determine the specific shape of those historical pathologies. One basic assumption of this thesis is that medicalization works on the individual: individuals who are attended by physicians, subjected to treatments, prescribed pharmaceuticals, and ultimately pay for this treatment through insurance or private monies. What if the site of intervention is not the individual but the ordering of society itself? What if nature is not something that changes into the

pathological but rather is seen a constant that defines the lives of individuals and the workings of institutions? I suggest that scrutinizing the contemporary politics of sleep leads to interpretations other than the medicalization thesis. One of these interpretations, which I focus on here, is that the contemporary politics around sleep in the United States expose a model of subjectivity that depends on the production of sameness, of parity, between individuals and institutions. I call the specific way in which this happens a natural hegemony.

I take my impetus in this essay from two connected yet vague passages in Antonio Gramsci's (1971) "prison notebooks," in which I perceive the seeds of a theory of natural hegemonies. Like much of his work in the notebooks, his essay on "Americanism and Fordism" is at times aphoristic and often full of non sequiturs, but in his discussion of "Some Aspects of the Sexual Question," he invokes human biology, the need for its social control as a function of capitalist production, and "nature." Read the following, substituting references to sex with references to sleep:

Sexual instincts are those that have undergone the greatest degree of repression from society in the course of its development. "Regulation" of sexual instincts, because of the contradictions it creates and the perversions that are attributed to it, seems particularly "unnatural." Hence the frequency of appeals to "nature" in this area. . . . Life in industry demands a general apprenticeship, a process of psycho-physical adaptation to specific conditions of work, nutrition, housing, customs, etc. This is not something "natural" or innate, but has to be acquired, and the urban characteristics thus acquired are passed on by heredity or rather are absorbed in the development of childhood and adolescence. (Gramsci 1971:295–296)

Gramsci notes both the necessity of producing a laboring class through "psycho-physical adaptation" and the ways that this "apprenticeship" produces new understandings of individual and social "natures" through "repression." The nature produced by the demands of society—the "second nature" of capitalism, as discussed by Karl Marx (1992 [1975])—shapes experiences of the human body, its drives, and their temporal and spatial interactions. This is what Gramsci refers to as the "urban characteristics" of this subjectivizing process, the distinct patterns of behavior and understandings of the body that stand in opposition to a rural, agricultural, or pastoral conception of time, space, and bodies.¹⁰ Yet natural hegemony, as an analytic, is quite different from traditional Gramscian models of hegemony, which, despite the incidental remarks of Gramsci on sexuality, often ignore questions of biology and nature in favor of political and moral conventions and the

4. <http://phx.corporate-ir.net/phoenix.zhtml?c=90106&p=irol-newsArticle&ID=1032545&highlight=>, (accessed September 3, 2007).

5. http://en.sanofi-aventis.com/Images/070801_Res-S1-2007_en_tcm24-17116.pdf (p. 4; accessed September 3, 2007).

6. <http://www.foodnavigator-usa.com/news/ng.asp?id=56204-fair-trade-coffee> (accessed September 3, 2007).

7. http://www.thecoca-colacompany.com/investors/annualandotherreports/2006/financial_highlights.html (accessed September 3, 2007).

8. http://www.pepsico.com/PEP_Investors/AnnualReports/06/PepsiCo2006Annual.pdf (p. 13; accessed September 3, 2007).

9. See David Lazarus's (2006) discussion of sleep aid marketing budgets, particularly in relation to Lunesta, in "Sleep Aids a Booming Business."

10. The production of spatial hegemonies was pursued by Henri Lefebvre and his followers (Harvey 1989; Lefebvre 1991 [1974], 2003 [1970]; Smith 1996), and discussions of the solidification of hegemonic rhythms have been most notably the subject of works by E. P. Thompson (1980 [1963], 1993) and Eviatar Zerubavel (1985 [1981]).

institutions and individuals that support them (Gramsci 1971; Williams 1977; Willis 1981 [1977]). I especially draw on Raymond Williams's (1977) understanding of Gramsci, that hegemonic processes are "constitutive and constituting . . . they are experienced as practices [that] appear as reciprocally confirming" (110). I propose that the analytic of natural hegemony can train our attention to how nature is both lived and used as an explanatory device. In order to understand the qualities of American capitalism and its particular development over the nineteenth and twentieth centuries, closer attention needs to be paid to everyday bodies and biologies. In addition to body techniques in the Maussian sense (Mauss 1979 [1935]), as sites for embodied cultural difference,¹¹ we need to turn attention to body techniques in the physiological sense, including the ways of manipulating body physiology through chemicals and practices (Rabinbach 1990; Thompson 1980 [1963], 1993). The analytic of natural hegemonies places an emphasis on the unresolved processes of control that hegemonies are always burdened with, required coercion or force (Laclau and Mouffe 2001 [1985]); it focuses attention on the changing regimes of nature and the ways that conceptions of nature shape experiences and expectations of time and space.

As an analytic, natural hegemony offers an alternative to both theories of naturalization and biopolitics. Naturalization works through the reification of social expectations of individuals as natural expressions—in other words, it describes how people explain the social by recourse to nature (Yanagisako and Delaney 1994). In contrast, natural hegemonies reshape the very conception of nature itself, reconstituting it as a modulating aspect of society and subjectivity rather than as a static, *a priori* base. Consider the introductory case of Betsy. An interpretation of Betsy's insomnia as naturalization would reveal that what appears to be a biological pathology (Betsy is unable to sleep) is actually a socially constructed identity (a worker and mother is unable to sleep during the required hours). While this much is true, by focusing on a misrecognition of the social as biological, naturalization does not address how Betsy's social situation is also fully physiological: however socially entangled, Betsy's body nonetheless bore the burden of sleeplessness, chemical interventions, and their ramifications for decades before her retirement. Foucault's (1990 [1976]) concept of biopolitics is a stronger reading of the physiological effects of social and political orders, drawing attention to how the manipulations of both understandings of bodies and bodies themselves are political techniques. Thus, biopolitics understands Betsy's insomnia as an effect of institutionally mobilized and legitimated forms of subjectivity. If naturalization is a weak social constructionism, limiting its effects to ideas and identities, and biopolitics is a

11. Mauss reviews a host of different bodily practices to evidence how societies deploy their bodies; one of the most salient examples is that of walking, where gait, pace, arm position, and posture come together to produce recognizable bodily alternatives.

strong social constructionism, expanding its effects to physiologies and embodied experiences, natural hegemony questions the very rejection of "natural" causes at the heart of social constructionism.

Natural hegemony, as I propose it here, illumines the oft-occluded middle ground by focusing on those mediating features of life in the world that are irreducibly biological and social in both cause and effect. In this article I concentrate on the mediating features of time and space, though it may also be useful for thinking about other categories that resist resolution as either social or biological, such as growth and decay, the senses, movement, care for others, or communication. Time and space, though, have an extensive literature pointing to their mediating capacity between society and nature, as well as between individuals and institutions/collectives (Lefebvre 1991 [1974], 2002 [1971], 2003 [1970]; Thompson 1980 [1963], 1993). As Lefebvre (1987) has shown us, spatiotemporal ordering is a fundamental effect of institutional and individual functioning, pervading and linking domains of everyday life. Moreover, as many human geographers have demonstrated (Braun 2002; Gidwani 2008; Massey 1994, 2005; Thrift 1996; Whatmore 2001), space and time are capacious producers of individuals and institutions, as well as of various living others, such as forests, watersheds, agricultural fields—or insomniacs. This study of sleep shows how bodies are produced through spatiotemporal being in the world, which is contingent, intersubjective, always unfolding, and subject to control. Moreover, focusing on the natural hegemonies of sleep helps to evidence how time, space, and bodies are mutually contingent and reaffirming, making and remaking themselves and the very bases of everyday life. By training this focus on scientific and medical practices—and especially medical treatments—the materiality of the human body and its very intimate relationships to capitalism through these "natural" experiences of time and space become evident, embodied in the chemical supplements that wakefulness and sleep demand, as well as the ordering of the institutions constitutive of American everyday life. These demands, I argue, function through natural hegemonies rather than social hegemonies.¹² Training our attention to time and space as per-

12. Cultural and social anthropologists have long been interested in social hegemonies and their enacted resistances (Abu-Lughod 1990; Hale 2005; Kracke 1978; Li 1999; Linger 1993; Lyons 2005; Moore 1998; Rouse and Hoskins 2004), but recently—inspired by social studies of science and medicine—more attention has been paid to hegemonies whose powers are ascribed to nature (Lewontin 1993; Martin 1992 [1987], 1991; Mykityn 2006a, 2006b; Paxson 2008; Sturm 1998; Taussig 2008), although they are rarely ascribed the term "hegemony." In the literature on social hegemonies, the qualities often attributed to the hegemonic are coercion and force, resulting in consent (Caldeira 2002; Hall 1996; Holmes 2000; Kracke 1978; Lyons 2005); these, too, may be seen as operating in those hegemonies arising from nature (Montoya 2007; Rapp 1999), although rather than acquiescing to the hegemony of other social actors, individuals are coerced by and consent to what is discursively produced as their own biological natures. Beyond this discursive split between natural and social, what else might be different in these hegemonic projects, especially as

vative mediators, the analytic of natural hegemonies reveals contemporary social formations as forms of life.

Studies of hegemonic conceptions of time and space have largely stressed the social aspect of these hegemonies instead of the reliance on nature in producing or justifying these hegemonies. For example, in his study of the development of sciences related to human fatigue and motive power in the nineteenth century, Anson Rabinbach (1990) shows how nature becomes the link between modern conceptions of the human and social life and focuses his attention on “productivism,” the theory that “human society and nature are linked by the primacy and identity of all productive activity, whether of laborers, of machines, or of natural forces” (3). Foremost in his analysis is what he perceives as a cultural shift in the understanding of nonlaboring bodies—from idleness to fatigue, the former a social problem, the latter a problem of nature. Modern science and medicine, Rabinbach argues, increasingly move away from social explanations to natural ones, thereby positing a unified theory of individual and social life as the basis of human activity—and all human and nonhuman activity in nature. The regulation of sleep, like sex and fatigue, is productive of modernity and produces a foundation through which to conceive of individual and social life. In unraveling the nature of sleep, American medicine and science posit a basis for the ordering of social life, founded in the logics of nature. The recourse to nature in conceiving of human life and its social interactions and biological capacities relies on conceptions of time, space, and the body that transcend the social or cultural; they impose physiological limits and primordial pasts, which are at once social but rely on transhistorical conceptions of the human to find their legitimacy and thereby attempt to legitimize particular orderings of society.

Natural hegemonies are technologies of isomorphism, binding individuals and institutions together through their reliance on a logic that applies to them equally—they are taken to be of the same kind. This praxis posits the subject and institution as extensions of one another, an extensivity that finds its logic, in the case of natural hegemonies, in nature. As a model of subjectivity, this is fundamentally different from models that accept the coproduction of individuals and institutions but treat them as different kinds, as in

social studies of science and long-standing traditions in anthropology acknowledge the split between the social and the natural to be a spurious one (Latour 1988 [1984], 1993 [1991]; Strathern 1992, 1980)? As already hinted at, one difference that might be elucidated in the difference between social and natural hegemonies is that in the case of the former, force is assumed to be external to the subject that it is producing; in the case of the latter, force is internally produced—biology might not be destiny, but it is determining. This can be readily seen in the case of genetics, where individuals are assumed to be predisposed on the basis of internally determined drives and disease susceptibilities (Heath, Rapp, and Taussig 2005; Lewontin 1993; Rapp, Heath, and Taussig 2001; Taussig, Rapp, and Heath 2003), by individuals in their understandings of themselves and also among institutional actors such as physicians, scientists, politicians, lawyers, and activists.

the case of Foucault’s discussion of the prison or clinic. The clinic produces patients, the prison produces prisoners, and in both cases these kinds of individuals are different in kind from their associated institutions. Instead of existing independently from the institutions, as Foucault shows, they are inextricable from them. Rather than products of institutions, technologies of isomorphism promote commonsense understandings of individuals as metonymically related to the formations that are the foundations of their subjective understandings of self. This can be readily evidenced in terms of American attitudes to sleep, which accept certain spatiotemporal rhythms as natural for both individuals and the institutions they interact with: the workday is structured around natural rhythms of day and night, and the individual relates to this rhythm through personal sequences of sleep and wakefulness. The lives of individuals make sense of the structure of institutions and vice versa. As in the case of Betsy, normative schedules of work are taken as both institutional models of labor and individual models of sleep. The demands of the workday were felt by Betsy in her need for sleep—which could not be achieved without recourse to pharmaceuticals or other therapeutic means in an effort to align Betsy’s rhythms with those of the institutions she interacted with. And this is precisely how natural hegemonies work: by inculcating their logic in both the structure of institutions and individual lives, natural hegemonies take on the appearance of being both natural and hegemonic. They become universal and inevitable by rendering individuals as of-the-same-kind as institutions.

One site where sleep’s hegemony can clearly be seen is in the sleep clinic, where social and biological demands bundle to produce troubled sleep—troubled natures—requiring medical intervention.¹³ But I focus largely elsewhere in this essay, first on the case of an American couple, Marcus and Laura Burton, and their management of sleep and its disruptions into their work and family lives. I succeed this discussion with an examination of the contemporary politics of sleep and its role in American social life more broadly, particularly as it relates to labor and the organization of work. In focusing on the organization of labor, I address the debates around “flexitime,” workplace napping, the 24-hour workday, and the coordination of global labor. In so doing, I am interested in the ways that the American workday has remained a relatively stable institutional force, despite efforts to reorder the spatiotemporal logics of the American workplace. Finally, I turn to my claims that underlying this ordering of bodies is something particularly American, specifically related to capitalism, which can be perceived in what is often taken to be the medicalization of sleep.

13. For a discussion of the contemporary sleep clinic and the practice of sleep medicine, see “Sleep, Signification, and the Abstract Body of Allopathic Medicine” (Wolf-Meyer 2008) and “Precipitating Pharmacologies and Capital Entrapments: Narcolepsy and the Strange Case of Xyrem and Provigil” (Wolf-Meyer 2009).

Individuals, Institutions, and the Spatiotemporal Wages of Sleep

Marcus and Laura Burton were professional, upper-middle-class white Americans from the suburbs of Minneapolis and at the time of their interview were in their early 50s. They had been together since their early twenties, having met as undergraduates while at university in the Midwest. Marcus worked as a senior engineer in a medium-sized firm of which he was part owner, and Laura worked in a state-run hospital on various community outreach programs. Their two daughters were fully grown, graduated from college, and in the process of establishing their careers and families. Living in their empty nest, the Burtons had begun to tend to their sleep complaints, which now stood in stark relief to their other social obligations. Laura had recently entered menopause, and her sleeping had become more fragile. What had been a tolerable situation had become difficult to manage: Marcus's loud snoring. The Burtons had come to recognize Marcus's snoring as playing a significant role in their lives, referring to it as "snarking." As they explained to me in interviews, they came to identify their health problems primarily as sleep problems. But the regulation of sleep was a difficult project for them, and social obligations often took precedence over sleep. The Burtons had difficulties prioritizing sleep, finding work and family commitments more pressing.

What marked the Burtons' interaction with their sleeping problems was a generous humor, directed both at each other (as sleepers and as spouses) and at the role that sleep played—or failed to play—in their daily lives. This use of humor deflected the force of sleep's disruptions from their daily lives, rendering it a sort of joking nuisance rather than an insufferable irritation: sleep became interpreted as another necessary aspect of their relationship as spouses and as bed partners (cf. Rosenblatt 2006), bringing together broad social obligations, cultural expectations of time and marriage, and their intersubjective understandings of each other's bodies. Despite knowing that medicine might have solved their sleep problems, Marcus deferred medical help, in part because of life getting "complicated." What brought him back to the possibility of a medical intervention was preserving his marriage, as well as an ongoing understanding of his body as a disruptive one for him and for Laura.

What led you to seek medical treatment?

Marcus Burton: Well, Laura and that I know that I snore. And I have had years of listening to my father and my brothers [snore]—you know, as a child. And I know how loud it is. And I also know what it's like to be sleep deprived in that I went through a phase of my life where I had a real hard time sleeping for about a month, and life's no fun when you're not sleeping. And, so, when Laura said, "It's really hard to sleep if you're making noise like that" and one day she got up and left—

Laura Burton: I went into the room across the hall.

M: You went across the hall and set up a camping cot

and went to sleep. . . . I don't remember the exact chronology, but I had signed up for my sleep study the first time two or three years ago, so it wasn't something that I had—that I fought or didn't buy into, but I had gone to my GP, and he told me to contact some sleep institute. Laura was working at [a local hospital], and she said, "You can't go there; you have to go to MSDC," so I canceled the other one, and life got complicated, and two years went by. . . . She's in menopause, she has insomnia to begin with, and—

L: I think that was what really brought you there, because, I mean, we've been married and sleeping together for 30-odd years, and I've been able to sleep through it until recently. And because my sleep cycle changed, my quality of sleep changed. Unless I'm really, really tired, I can't fall asleep with him snarking in my ear. I just can't. But I think that's basically what happened. I think he's been constant, and it's me that changed.

It was not so much a change in Marcus's condition that finally brought him to seek medical help but a change in Laura's ability to sleep despite Marcus's constant snoring (or "snarking" in their idiom); it was only when Marcus's sleep disorder became a social disorder that he finally sought a medical intervention. This social disorder, in turn, was based on the interaction of Marcus's and Laura's biological and social demands—when the balance that had previously existed became too disrupted, therapy was necessary.

Like many Americans, if the NSF's (2002, 2005, 2007) Sleep in America polls are accurate, Marcus averaged fewer than eight hours of sleep per night. But whereas many Americans report difficulties with sleep onset, sometimes conflated with insomnia, Marcus manipulated his waking time to meet his social obligations, particularly work.

Can you describe a typical night's sleep before the diagnosis?

M: With me? Typically, we would go to bed between 12:00 and 1:00, and I would go to sleep in two minutes—

L: Twenty seconds max.

M: Yeah. I would usually have to get up once in the night to hit the lavatory. I would typically get up around 7:00. I try and get at least six hours of sleep a night, knowing my ideal is seven. In terms of waking myself up snoring, to me it doesn't seem like a common phenomenon. But I know that it happens—I just couldn't—obviously, I don't keep track on a nightly basis, but I would expect that I probably wake myself up once or twice a night. I realize that it has happened and roll over or try to do something. I usually sleep on my back, and after the first snark of which I'm aware, I roll over to my stomach because I'm convinced that it's physiologically impossible to snore while sleeping on my stomach.

While there is no proper medical treatment for Marcus's snoring, he and Laura worked to find means of minimizing its disruption of their sleep and realized ultimately that it was not simply his snoring that impacted their sleep but a broader

network of social demands and expectations within which sleep could be slighted for other perceived benefits or for the sake of other social obligations.

As Marcus explains, it was not that he had a nosologically defined sleep disorder but rather that he was chronically “tired,” a result of medicating his lack of daytime alertness though caffeine.

What were you diagnosed with?

M: Well, it turns out I was basically diagnosed as tired. And—if I remember the specifics of it—he said on average I had 2.2 apnea events per hour, which didn’t qualify as anything dramatic by any stretch of the imagination.

L: It was actually under normal.

M: Yeah, what he said was less than normal. And my sleep was 87% or 88% efficient, as opposed to 82% for the population in general. And my favorite part of the whole thing was the nap assignment. And I think it was because I didn’t have any significant apnea overnight they wanted to see what my sleep pattern during the day would be. So, when I finally arose at a quarter to 10, they gave me the prescription—if you will—to take five naps during the day, and I did that at 12:00, 2:00, 4:00, 6:00, and 7:00 [p.m.]. They decided they didn’t need to wait until 8:00 for the last one, as I can fall asleep pretty easily.¹⁴ And as the day went on, I think I fell, I think it took a little longer to fall asleep each time. I think it took—

L: But he fell asleep each time.

M: Yeah—doctor’s orders. I think the last time it was 12 minutes it took me to fall asleep; the first time I think it was two and a half. But I was pretty tired. And the long and the short of it was I was tired, basically. I don’t get enough sleep—we know that. We don’t get enough sleep.

It was not his sleep—high efficiency, few apnea events—that was a problem for the Burtons but rather what had been increasingly taken as Marcus’s lack of sleep and its resultant snoring. Marcus suffered from chronic sleep deprivation, which led first to his ability to test as “tired” and nap on cue but was also recognizable to him and Laura as foundational to his continued health. Marcus and Laura were aware of the problems that sleep had caused in their lives and in their marriage, and it was due to such recognition that they had sought medical treatment, although the possibility that they could arrange their social lives in ways more amenable to sleeping was also available to them, however undesirable.

Caffeine became a means of self-medication for Marcus, working in its turn to conceal his sleep deprivation, and—as

the Burtons recount—also exacerbating the social disorder generated by his “snarking.”

L: Did you talk about the coffee?

M: No. And, um, what she means by that is when I, when we, had the initial interview with the doctor, he said, “Do you drink coffee?” and I said, “Yes,” and he said “*Well, how much?*” and I said, “Two, three pots a day.” He said, “You mean cups?” “No, I mean pots, and, uh, but I always stop by about 3:30—I never drink coffee after 3:30.” And that led him even further down the pipe to his conclusion that “well . . . you’re really sleep deprived.” He has a resident with him at the time—he was training somebody in—and said, “It’s [caffeine] a very potent stimulant, but it doesn’t last very long, so if you’re sleep deprived but you need to stay awake for 12 hours, you might drink three pots of coffee in a day,” and [laughter] he said, “You know, you might really want to stop that.” And, so I finally had a doctor tell me I was drinking too much coffee. No doctor had told me that before because my blood pressure isn’t high and I never actually killed anybody or anything like that, although it can make me pretty edgy. So I stopped. Instead of drinking about [a coffee cup]—I would typically have about five or six of those by 11:00 in the morning and probably about three or four more in the afternoon and coffee at lunch wherever I was. I hacked that down to about one or one and a half in the morning and one in the afternoon, and I just made a conscious decision to stop.

L: And it made an incredible difference in how much he snores. Because he snores way, way, way less now.

M: Or you’re sleeping better.

L: No, I’m telling you I’m not sleeping better. Your snoring has gotten better. Or gotten—I don’t know if you call it improved snoring if it’s quieter. It’s not as loud; it’s not as often.

M: I still wake myself up. I still wake myself up on occasion with a snark here or there. But we still don’t get enough sleep.

The use of so much caffeine—and a quantity not out of step with that of other disordered sleepers—not only concealed Marcus’s sleepiness but also exacerbated his physiological predisposition toward being a noisy sleeper. Marcus may have been an extreme caffeine drinker before his recent reduction in consumption, but his modified levels of coffee drinking are in line with reports of average American caffeine consumption, which is estimated at 200 mg daily for non-coffee drinkers and nearly twice that for those who drink coffee (Weinberg and Bealer 2001).

The problems of the temporal and spatial arrangement of life are evident throughout the Burtons’ recounting of their sleep and its disorderly presence in their life. The Burtons’ sleep shapes their everyday lives, ranging from Marcus’s at-work performance, requiring steady caffeination and naps, to his interrupted bed sharing with Laura. For the Burtons, the preferred ordering of family and work was disrupted by the

14. This test is known as the Multiple Sleep Latency Test (MSLT) and was developed by William Dement and Mary Carskadon at Stanford to determine sleepiness; it is standard test protocol for narcoleptics to ascertain how severe their narcolepsy is.

inevitable need for sleep, and needed sleep was disrupted by family and work demands—each tangibly affected the others, necessitating caffeine for workplace alertness and eventually medical intervention to restore the possibility of sharing a bed. To reduce the cause of the Burtons' sleep problems to either the biological or the social is to misrecognize that these domains are inextricable. In the case of the Burtons, a social-constructionist argument would ignore both that Marcus is physiologically predisposed to snoring and that Laura's physiological sensitivity to his "snarking" has changed over time. Marcus's disrupted sleep creates his need for coffee and napping while at work. It was only by treating his sleep and work needs with equal weight that Marcus and Laura were able to return to their bed together, a spatial and temporal ordering central to their understandings of family life. More restful sleep through the night leads to less coffee drinking throughout the day, which, in turn, leads to restful sleep through the night. The sleep physicians intervene on Marcus, altering his daily consumption of caffeine. In so doing, they are able to restore order to Marcus's work and family commitments and displace any temporal rearrangement of institutions onto Marcus. Such medical interventions at the level of the individual preserve the spatiotemporal ordering of society.

Disciplining Sleep: Workdays and Biology

At the nineteenth annual Associated Professional Sleep Societies meeting, the national conference for medical and scientific research of sleep in the United States, Dr. James Walsh, in an invited lecture entitled "Optimizing Human Functioning at Night," made a utopian suggestion. After a review of shift work sleep disorder and circadian rhythm disorders,¹⁵ Walsh suggested that it would behoove American society to identify those people who are biologically predisposed to night and morning work—genetically identifying owls and larks—and to assign people to the appropriate jobs for their biologies. This vision, as politically fraught as it might be, has a long history in the West, most akin to Aldous Huxley's (1998 [1932]) *Brave New World*, wherein individuals are bred to be suited for particular jobs and social obligations. The most menial work is accomplished by the dullest and coarsest of the population; the most sophisticated jobs, the most abstract and complex, are tended to by the genetic elite. One might

15. Shift work sleep disorder (SWSD) and circadian rhythm disorders are generally the result of individuals being required (due to social obligations) to sleep and wake at times that they would not normally choose on their own. SWSD is a particular iteration of circadian rhythm disorders, which result from individuals having to routinely alter their sleep patterns as a result of work schedules (e.g., working the morning shift one week, the night shift the following week, and the evening shift the week after). The results of these varying sleep times are both insomnia and sleepiness, but not mapping onto socially appropriate times. Circadian rhythm disorders, more generally, are often treated with sleep-inducing drugs or sleep restriction protocols, forcing individuals to sleep at only specific times in order to align them with their social obligations.

rightly wonder what labor would be set aside for night work and what for the day. Walsh's strange genetic/spatiotemporal utopia also echoed H. G. Wells's (2005 [1898]) *The Time Machine*, which served as an allegory for late Victorian Britain's rigid class hierarchies, burgeoning industrial sphere, and anxieties about waning empire. Wells portrayed the British class struggle in the antagonistic relationship between the nocturnal, proletarian Morlocks, who spent their days underground, and the diurnal, bourgeois Eloi, who spent their days frivolously and nights in terror of the Morlocks. Both fantasies of spatiotemporal regimes intimate the way social life's potentials become circumscribed by ideas about biology, as well as by biology itself.

In this section, I focus on three events: the disappearance of the "siesta" in contemporary Spain and elsewhere, the retreat from nighttime business in major U.S. cities, and the synchronization of Indian call centers with U.S.-based corporations. At first glance, these may seem quite separate phenomena. Rather, I argue in the following section, they are all symptoms of a single cause: the subtle influence of a form of spatiotemporal imperialism that takes labor as its primary locus, with the human body and the discourses of health as its means of insinuation. It is because of the presumed natural hegemony of human sleep that these changes in space and time have occurred, as they all take as their basis and end the need for Americans to sleep in a consolidated, nightly fashion.

From the 1970s through the 1990s, predictions of the ways capitalism would "colonize" night were prolific, both in popular culture and in academic discourse (Harvey 1990; Melbin 1987; Moore-Ede 1993). Sociologist Murray Melbin may have been one of the first to foresee this possibility, and his *Night as Frontier* now reads as a technological romance in which he posits the rise of an "incessant" timetable, constant activity over the 24-hour day:

From greengrocers in New York to kebab houses in London to telephone hotlines in Moscow, the never ending availability of goods and services is an unprecedented convenience of the twentieth century. Just as a we-deliver-anywhere company performs a role in space, the always-open service offers continual access as an appropriate role in time. . . . People want to have the choice of when to sleep and whether to sleep at all. The prospect of dispensing with it is not so far in the future. . . . Like air travel, it will be resorted to by some, though not all the time. (Melbin 1987: 7–8, 134)

What happened over the course of the 1990s was an inching away from this colonization of night: rather than U.S. businesses staying open later, service industry jobs were sent overseas, thereby preserving a diurnal, consolidated sleeping scheme for Americans (and for those who serve them elsewhere, although sometimes at odd hours). The fantasy of nocturnal shopping malls was replaced with the reality of all-hours shopping through the Internet. It may be argued that this creeping away from night, this retreat into diurnal prac-

tices, is the point where the biology of the human body resists the efforts of capitalism. Rather, I argue that the resistance to the penetration of night is an effort to promote specific global cultural norms; it is about the globalization of spatiotemporal arrangements that privilege some sleepers and social arrangements over others. Moreover, this form of spatiotemporal imperialism privileges specific societies and cultures at the detriment of others: India becomes synchronized with the United States and Spain with England, France, and Germany; efforts toward modernity are inescapably tied up in “modern” temporalities, which are often posited as morally superior, natural, and inevitable orderings of time.

David Harvey’s (1990) elaboration of postmodernity described what has become accepted widely as “time-space compression”; quite simply, and with necessary reductions, time-space compression was the perceived increase in temporal and spatial access between—until recently—widely divorced spaces, emblemized in intercontinental flights, e-mail, satellite radio transmissions, and cell phones (Castells 1996; Virilio 2001 [1998]). This “compression” was posited as both the appearance of proximity and the experience of proximity. As Anna Tsing (2000) has argued, Harvey’s cultural assumptions were largely accepted by academics studying globalization, but globalization should instead be understood as sets of “projects” by actors in diverse settings; what I would like to explore in the following are the array of cultural practices that have been exported from the United States and Western Europe, which, rather than compressing time and space, synchronize temporality over diverse spaces, thereby coordinating diverse bodies and distant societies—maintaining some cultural norms at the expense of others. Rather than accepting the times and spaces of others, the United States (especially) and the European Union syncopate the rhythms of other societies to produce global temporal intensities and rests, metonymic coordinations of workers and work, predicated on assumptions of nature. The effect of this is a “sleepy” capitalism, a form of capitalism imbued with the familiar temporal agency of the human body, periodic remissions and vigilance, and a nature of its own, all of which are relied on by diverse actors to posit capitalism as an inevitable end. These kinds of coordinations depended also on managing local intensities of time with global forces; they involved structuring workdays that make economic and biological sense and are able to collapse cultural expectations into bodily realities.

As an example of sleep’s nature privileging certain patterns of everyday life, one might look at the business practices of Kinko’s, which formally aligned with FedEx in the early 2000s and is now subsumed in the latter and thereby brought together two leading 24-hour incessant businesses:¹⁶ as corporately mandated through the late 1990s, all Kinko’s branches in the United States were open 24 hours daily and closed only

on holidays. On national holidays, one out of every four stores remained open 24 hours for the occasional emergency. At the turn of the twenty-first century, due to what one employee had explained to me as shortfalls in profit, Kinko’s locations throughout the United States began to close in the late evening—usually around 10 or 11 p.m.—only to reopen (or reawaken) in the early morning. This saves Kinko’s from having to pay third-shift workers, who like most third shifters, earned higher wages for working an “undesirable” shift. To compensate for these closures, regional printing facilities were created, where production work from a number of Kinko’s locations was sent for overnight processing. In areas such as metro Detroit, which houses a number of corporate headquarters and automotive research facilities and where 40–50 overnight employees were employed by Kinko’s in the 1990s, only a handful of overnights remained, and they were consolidated at busy (or profitable) stores and a local production facility. Kinko’s is not an exceptional case: others include a number of local and national overnight diners, gas stations, and grocery stores. As might be expected, being open 24 hours is a precarious business decision and depends on balancing consumer goodwill and profitability. As Kinko’s and others discovered, the meager benefits of the former might not be worth the losses in the latter.

One model of social arrangement that offers an alternative to the American ordering of sleep is that of the “siesta” culture, where, around midday, work breaks for mealtime and rest, allowing owls to catch up on their sleep and giving larks a midday respite. However, around the world, as local economies are coordinated with more powerful neighbors, siestas are beginning to disappear. The majority of the press coverage given to the disappearance of siestas in Spain came from *Financial Times* and *Christian Science Monitor* (e.g., Llana 2006), both of which ran stories during the negotiation of the siesta’s disappearance and immediately after. Beginning in January 2006, government offices and services adopted a 9 a.m.–to–5 p.m. workday model, eradicating the traditional siesta break in the late afternoon. The hope—from both government quarters and independent lobbyists (such as the *Fundacion Independiente*)—was that this would force other businesses to synchronize their workdays to this schedule. At the local level, these attempts toward temporal hegemony relied on discursive tactics of shaming, which depended on pointing out Spaniards’ lack of productivity compared to that of the rest of the European Union (some estimates place them 40% behind their peers¹⁷). For example, as published in a *Fundacion Independiente* white paper:

Today, while Spain’s neighbors to the north have already digested their meal, the lunch hour in Spain is just beginning, and often it lasts not just an hour but hours. Such a lengthy meal makes it difficult for employees and managers

16. These data were provided by a FedEx/Kinko’s employee in Metro Detroit who had worked for the company in a variety of managerial capacities since 1995 at the time of his interview in 2006.

17. The *Fundacion Independiente* Web site (<http://www.fundacionindependiente.es/portada/portada.php>) hosts a number of ideologically harmonious studies (accessed December 12, 2006).

in Spain and other European countries to make arrangements between midday and 4 p.m. (quoted in Deschenaux 2008:126)

“Not just an hour but hours”: embedded in such a claim is an expectation of normal human behavior—that an hour for lunch is surely enough—and that a variance from that norm is problematic. In this case, the problem is the failure for Spanish businesses to be able to coordinate with those in “other European countries,” for example, England, Germany, and France, who sleep through the night and limit themselves to hour-long lunch breaks.

In contrast, as some U.S. businesses discovered in the early twenty-first century, a midday nap could greatly benefit workers’ health—and their productivity; workplace naps also kept workers at their workplaces longer hours since they felt little fatigue at the end of the workday and were more inclined to continue to work (Brown 2004). To add to these work options, there have been attempts to popularize workplace napping in the United States, as briefly mentioned above. This initiative was spearheaded in the 1990s by Alertness Solutions and the Napping Company, two consultancy firms who would visit a workplace to consult with employers and their employees on how napping might benefit both workers and the economic goals of the company; they also provided advice on how, where, and when to nap. To overcome some of the cultural derisions of nappers and napping behaviors, both consulting firms coded their advice in the language of capital; they provided extensive data on the economic benefits of napping for employers. So, while nappers might have felt as if they were the ones benefiting from the change in workplace policies regarding napping, it was actually employers who reaped the dividends (cf. Brown 2004). Spaniards may soon find their siesta repackaged as the workplace nap, along with a pillow especially designed for desktops.

For employees in India-based call centers, stranger things occur with their time (see, e.g., Aneesh 2006). Rather than being normalized along a 9 a.m.–to–5 p.m. work schedule in their own time zones, they are being scheduled according to business activity in the United States. To call India at 9 a.m. in the United States’ Eastern Time Zone coincides with late evening in most parts of India; as a result, most Indian call center workers work the third shift, beginning in the late evening and working through morning. While most employers hired employees to work eight-hour shifts, most work demands—for example, number of customers consulted—force employees to stay at their jobs for 12–13 hours. As a result, employees experience the traditional by-products of shift work, including insomnia and chronic sleep deprivation. Moreover, Indian work schedules are synchronized with U.S. holidays, and employees receive July 4, President’s Day, Christmas, Easter, Labor Day, and New Year’s off; meanwhile, they are required to work on Indian holidays. The lives of Indian workers become desynchronized from their families and nonworkplace friends for the benefit of being coordinated

with American help seekers, promoting a spatiotemporal imperialism benefiting some while disadvantaging others. Stranger is the “jet lag benefit” that U.S.-based managers receive when traveling to international call centers: they can continue to sleep as usual and conduct their business at local nighttime hours. Thus, rather than a pharmaceutical cure for jet lag, American businesses may be arranging temporal fixes and a globally available social order based on the hegemony of American sleep patterns.

The coordination of work times—locally and globally, individually and institutionally—invariably requires the coordination of society and biology through regimes that define and legitimate normative models of everyday life. In rough fashion, under the incessant demands of contemporary capitalism, this requires some workers to work at undesirable hours, personally managing their biologies and social obligations to achieve some balance in their everyday lives. But if genetic fantasies such as that of James Walsh come to fruition, more nuanced models of everyday life may be institutionalized, which, instead of relying on such graceless coordinations as shift and night work for witless laborers, depend on more intimate biological knowledge of workers and find means through economic rationales and social obligation to coordinate temporally appropriate bodies and work. The intensification of public interests in the biology of sleep should be seen as partially motivated by the capitalist interests in producing working bodies, bodies resistant to workplace fatigue and tirelessly alert, a project developed from the beginnings of the industrial age (Mintz 1985; Rabinbach 1990). Although unlikely that James Walsh’s genetic fantasy could come to full fruition, with governmental agencies directing a biologically discerned workforce (Rabinow 1996 [1992]), it may come to pass that an expectation will develop on the part of employers that workers intimately know their biologies and select work times appropriately. Alternatively, workplaces may become more explicitly “sleep friendly” in their arrangement, with workers charged with regulating—through institutionally supported means—their sleepiness and alertness. The incorporation of sleep-related work benefits might be used to attract and retain workers; if given the opportunity, a sleep-friendly workplace—for those who know themselves as sleepers—will always be preferable to a sleep-antagonistic one.

On the coattails of the workplace napping debate, MetroNaps was launched in Manhattan in the early 2000s to offer workers an off-site place to take a nap; by 2006, MetroNaps was working to establish itself as a presence in all 50 states in the United States. MetroNaps was developed to service workers who lacked either the infrastructures for workplace napping or the policies that would tolerate employees napping at their desks. Moreover, as a remote place for nappers, it obviated the possible shame that workplace nappers might face if they slept at their desks. As a space, it was designed to facilitate napping as well as anonymity; in the case of the former, science was brought to bear on the

length of naps and the ergonomics of sleep, whereas in the case of the latter, the space of MetroNaps was carefully constructed to allow the workday napper a veneer of privacy. Located in the Empire State Building, from the outside, the original MetroNaps facility was a rather nondescript corporate space. Like many of the other offices in the Empire State Building, the entrance to MetroNaps was a simple glass door succeeded by a desk and a receptionist. Where its lobby differed was in the placement of a number of stalls equipped with mirrors and hygiene products for nappers to freshen themselves with after their naps. Located behind the front desk was the napping facility, which hosted eight ergonomic recliners. As a space, the napping area was more akin to something out of science fiction than a cozy bedroom or a barracks: lit only with deep purple light and drenched in the sound of a white-noise generator, the black recliners faded into the darkness of the room. Speaking to the MetroNaps employee who acted as my guide was difficult because of the white-noise generator, which was so overbearing (and yet not loud) that we had to huddle together to have a conversation in the napping room. She explained that the white noise was so powerful to obscure the sounds of other sleepers and people coming and going from the room; no one, to her knowledge, was unable to sleep due to it. While busy, the location at the Empire State Building paled in comparison to the branch located in New York's financial district, which hosted 12 beds; at \$14 for a 20-minute nap, MetroNaps' offer of a place to take a shame-free nap seemingly was successful—at least temporarily. By 2009, MetroNaps had closed its locations in the United States, possibly as a result of American antinapping sentiment, despite the anonymity MetroNaps provided nappers.

The development of workplace napping was an extension of the "flexible" workday, an attempt lauded in the 1990s as a more humane way of arranging the workday, although this was not borne out by flextime as actually practiced (Basso 2003 [1998]:75–76). Moreover, in order to work flexible schedules, workers were often expected to make other workplace sacrifices, sometimes moving from full- to part-time employment, increasing work hours, or accepting pay cuts (Golden 2001a, 2001b). Finally, access to flexible work schedules was stratified based on the kind of employment, with managers and those who work nonindustrial jobs having access and low-wage and traditional blue-collar jobs providing limited or no access (Golden 2001a, 2001b; Swanberg, Pitt-Catsouphes, and Drescher-Burke 2005). Napping in the workplace, conversely, was an activity available to everyone, and the possibility of insinuating it as a workplace option relied only on overcoming cultural expectations of sleep and its proper times and places. To achieve this end, workplace consultancies were developed to spread the gospel of sleep's natural hegemony. Neither Alertness Solutions or the Napping Company have been wildly successful in their attempts to popularize the workplace nap, and MetroNaps no longer exists; when brought together with the personal and clinical

concerns and practices discussed above, what I take this to evidence is that social hegemonies depend on natural hegemonies. In contemporary American capitalism, the new regimes of nature and society accept sleep as integral to American everyday life, not solely as a biological phenomenon but as part of capitalism's inevitability.

Remaking the Nature of Capitalism

Capitalism as an institution and practice, despite claims to economic abstraction, has always been dependant on the human and nonhuman bodies from which value can be extracted (Mintz 1985; Rabinbach 1990; Seltzer 1992; Thompson 1980 [1963], 1993). This has sometimes been overlooked, and recent approaches to finance and the economy have tended to leave the very bodies on which markets depend out of the equation, instead focusing on the social experiences of individuals, the turbulence of institutions, and the language of the economy (Ho 2005; Maurer 2005; Miyazaki 2006; Zaloom 2003, 2004). Focusing on the material foundations of capital—including human and nonhuman biologies (Haraway 2008; Mitchell 2002)—and the cultural expectations and projects that facilitate it (Yanagisako 2002) helps to render capitalism's multiplicities. This focus on biologies can also show how capitalism is discursively produced as universal and inevitable. Attending to how hegemonies are variously constructed, understood, and enacted allows the seemingly inevitable forces of capitalism to be disarticulated and elucidated as piecemeal, contingent projects. Sleeping and wakefulness are merely two footholds into the overlapping social and natural hegemonies that produce capitalism as a legitimate social form; other approaches have already identified additional biological components of contemporary capitalism, including genes (Rajan 2006) and illness more generally (Conrad 2007), but more remain and persist unmarked. Drawing out the divisions of labor based in and productive of human and nonhuman biologies further elucidates the always "frictioned" (Tsing 2005) status of the universalizing projects of capitalism and their particular iterations in individuals and institutions. Capitalism has always been biopolitical (Foucault 1990 [1976], 1995 [1975]), but its biological foundations have yet to be fully elucidated, both historically and in their contemporary commercial forms. The body—biologically and socially—has always been a site for politics, and its relationships with capitalism only intensify the need to attend to its discursive deployments as legitimizing the hegemonic forces of everyday life and its variations.

How should we understand the particularities of American capitalism? And what does focusing on the management of sleep make newly evident in American capitalism? Although I can offer only a brief sketch here of postulates I more thoroughly explore elsewhere, I suggest that one way to understand the relationship between individual sleep and the abstract and particular processes of American capitalism is through intensification and individualization. As in the case

of the retreat of the American workday from night, what the early twenty-first century has exposed are the ways that Americans have intensified specific practices associated with “late” or “advanced” capitalism, nowhere more evident than in the practices of Wall Street bankers (Ho 2009). What might seem a global turn toward the willingness to partake in the risky and abstract qualities of capitalism is exposed as culturally particular when American practices are compared with those of other societies around the world. Canada, due to a more conservative relationship to these qualities of capitalism, has emerged from the recent economic crisis relatively unscathed; countries that participated in these high-stakes uses of capital have not fared so well. In addition, as the isomorphic quality of natural hegemonies makes apparent, individuals and institutions are brought into parity with one another, with individuals bearing the brunt of the inflexibility of American spatiotemporal rhythms. This individualization is the contemporary extension of economic forms associated with the rise of Protestant work ethos, where the value of individuals is determined through external measures of economic merit (Weber 1905 [2002]). This, too, may seem a global phenomena, but one need again only think ethnologically and compare these American attitudes to conceptions of labor and value in societies that take as their base unit of analysis something other than the individual and his or her labor powers. It may seem reductive to suggest that Betsy’s insomnia was the symptom of the temporal inflexibility of American institutions—that Betsy’s predicament is the result of the rise of a neo-Darwinism that prizes the “flexibility” of individuals in an era of institutional upheaval (Martin 1994). But this is precisely what natural hegemonies do: the lives of individuals are conceptualized through their relationships with institutions, through which the natures of both are conceived. Aberrant natures, pathological forms, are meted out through individuals, not through the institutions they interact with, resulting in the individualization of disorder, as seen in both Betsy’s case and the Burtons’ case. And, because of the inflexibility of institutions, because of their intense relationships with specific spatiotemporal orders that find their logics in nature, the lives of individuals will continue to be shaped by the hegemonic demands implicit in the ordering of society, which produces some forms of sleep as disorderly.

Taken together, this intensification and individualization render medicalization an easy answer for the contemporary politics around the management of sleep and its disorders. Because individuals become the target for the management of sleep, despite efforts to alter work times and spaces, it might at first appear that a natural phenomenon is now being treated as a pathological one. But Betsy and the Burtons evidence something greater—not when treated as an individual in isolation but when treated as one of many. The control of sleep is less about the disciplining of individual lives than it is about the construction of a particular ordering of nature and society. That companies from Sepracor to PepsiCo can benefit from this evidences how coercive this model of nature

is: it is not simply through the chemical production of sleep that this natural ordering of space and time occurs but through the management of wakefulness throughout the day. Only by setting aside the presumption that Betsy and the Burtons are lone individuals, controlled through medicalization, can the politics of sleep and its management be exposed—not as burdens for individuals but for society itself.

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Comments

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Every society has its own patterns of beliefs and explanations. Whenever social scientists try to explain these phenomena, they need to use their own explanatory frameworks and descriptors, both of which can carry considerable theoretical baggage. In Wolf-Meyer’s paper we are presented with the notion of hegemonic: try “search and replace” with epistemic or paradigmatic and the whole thrust of his essay is transformed. So what is being conveyed in this word?

The modern idea of hegemony emerges from Gramsci’s attempts to gain recognition for the role of the cognitive in traditional Marxist economic thought (and thereby give a role for intellectuals come the revolution). But given that the cultural hegemony that accompanies capitalism is a reflection of economic domination of one class by another, a hegemonic representation of sleep patterns and disturbances must assume that there is another, different way of sleeping and explaining sleeplessness that is not beholden to capitalism. But what does this alternative look like? Did precapitalist societies not have

fatigued workers, nursing mothers, and night watchmen? Wolf-Meyer gives us a glimpse of this “other” in the middle section of his paper, where he uses the disappearance of a siesta in contemporary Spain, the retreat from nighttime business in major U.S. cities, and synchronization of Indian call centers with U.S.-based corporations to illustrate “the subtle influence of a form of spatiotemporal imperialism that takes labor as its primary locus, with the human body and the discourses of health as its means of insinuation.” Yet does not the siesta represent another form of managing labor, given that not much work could be expected during the main heat of the day so that with air-conditioning workers can at least have their evenings free? And why should the decline of nighttime work and its export to the Indian subcontinent represent the privileging of consolidated nightly sleep? Does the recent repatriation of some of those call centers indicate the opposite?

Part of the problem here is the use of another term that carries a heavy historical-cultural load: “natural.” “Natural” can be used in the sense of pertaining to nature or to being normal, and both are used in this essay. In fact the argument would be clearer—and strengthened—if it used the word “biological,” which reflects the modern episteme, to use a different framework. It is biomedicine that has separated primary insomnia from secondary insomnia (wrongly described in this paper as relating to the type of symptom) to indicate sleeplessness without and with a medical cause, such as anxiety/depression. This seems odd in the context of surveys where respondents can list a number of nonmedical reasons for their sleep disturbance, such as noise, getting up to care for someone, or going to the toilet. The failure of a medical classification to account properly for these experiences (Is it primary insomnia? Is it insomnia at all?) might be better described using a medicalization framework rather than some totalizing hegemony. Indeed, as Wolf-Meyer recognizes, sleep has become increasingly medicalized, from the widespread prescription of hypnotic drugs to the diagnosis of sleep apnea. What is of interest here is the discrepancy between subjective reports of insomnia and the objective evidence from sleep laboratories that pitch medical/biological explanations of sleep problems against lay accounts. The problem of reducing it all to a natural hegemony is that these nuances are missed.

The second part of this essay is an account of the experiences of two people, one of whom snores and disturbs the other. Wolf-Meyer suggests that a social-constructionist argument would ignore that one is physiologically predisposed to snoring and that the other has physiological sensitivity to it. That is incorrect: for the social constructionist it is the use of physiological explanations—which are themselves temporally and culturally located—that merits unpacking. The fact that the snorer is advised to reduce his coffee drinking is said to “displace any temporal rearrangement of institutions” onto the patient, so preserving the “spatiotemporal ordering of society.” No doubt there are very strong mechanisms in any society to maintain stability, and this may be

reflected in this account. But it is a long shot to imply that by removing capitalism the advice would be any different.

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Part of what makes Wolf-Meyer’s argument so powerful is that while it seems obvious that sleep is important to the biological realities of humans, we simply do not pay enough critical attention to sleep and its place in the “rhythms of American capitalism.” As he argues, sleep both is ordered by and orders all aspects of human life, even the daily workings of capitalism. While acknowledged, sleep is taken for granted and not just in the United States. Assumptions about natural sleep patterns and unnatural ones, too, are central to how all humans live their lives, because it is necessary. As Wolf-Meyer shows, sleep patterns work to form a kind of natural hegemony, sometimes in conflict and other times in unison with global capitalism, both inside and outside of the United States. We pay a great deal of attention to sleep because it is so central to the way our world works, but we do not look much at the mystery that revolves around the powerful symbiosis between “healthy sleep patterns” and how we understand the way the world works, both of which operate on different levels and in many configurations. How do we come to understand that one person’s healthy sleep may be another’s competitive edge? And, better yet, how is healthy sleep yet another variable in understanding contemporary business strategies and the quest for profitability? Wolf-Meyer points out that in an age of genetically modified foods and traumatic shifts in climate and weather, humans’ need for quality sleep and enough of it and the ability to stay awake when needed seem to be one of the few biological realities that still can be counted on by everybody. And so despite many scholars’ focus on the “biopolitical,” the seemingly benign ways that sleep is assumed to have a naturalness to it and its role in contemporary twenty-first-century human life go unchallenged.

Carefully pointing to “sleepy” moments that on the surface look like a quest for normalcy and a happier life on the part of individuals (or to make as much money as possible for businesses, big and small), Wolf-Meyer’s argument about the creation of natural hegemonies in terms of sleep shows not so much conflict or resistance but a symbiotic relationship in which primordial humanness is defined in terms of normal sleep—a relationship that just happens to be a blend of human biology and capital’s need for labor. And, not surprisingly, those with the most to lose end up having to sacrifice more, in this case whether in the marital bed or in attempts to maximize profits.

Are there other natural hegemonies that we do not recognize, that demand similar readings and analysis? And on

self-reflection, is this true especially for those of us on the “less to lose” end? Are we anthropologists indeed ironically more at risk of falling into these types of natural hegemonic assumptions of contemporary human life than others, by the nature of the questions that we ask and answers that we seek? And is this the case, especially in terms of a symbiotic relationship between individual Americans and domestic and natural rhythms of capitalism? Has sleep become political in the ways that other natural hegemonies have?

For instance, rhythms of American capitalism are seen as black women in the United States struggle over the politics of “natural” black hair, as weaves of “natural human hair” grown in India that are expensive to buy and maintain compete with weaves of synthetic or nonhuman animal origin, while “naturally textured” black hair becomes both a political statement and a reason why one could argue that he or she did not get a job in corporate America. Natural hegemonies appear as increasingly larger numbers of women and men opt for age-defying treatments in which “what 50 looks like” is transformed daily. And what about “Brazilian butt lifts” that create a new all-natural derriere, with the transfer of “natural” fat from one area of the body to another? There are no German butt lifts, but there are Germans whose lives appear to be benignly but significantly structured by natural hegemonies and their isomorphic profitabilities. And what about the politics of breast-feeding, which have moved to debating whether human breast milk truly is as “beneficial” having been pumped and fed via a plastic bottle as coming straight from the source with baby at breast? These cases of the politics of the body grab our attention more than sleep does, because they seem more political or “sexier.” But as Wolf-Meyer’s analysis suggests, healthy sleep may be the best example of how natural hegemonies “work,” simply because most of us do not question our assumptions about the primordial nature of human sleep and its place at the center of our everyday life.

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Matthew Wolf-Meyer has written an interesting essay about sleep and sleep problems that beautifully illustrates the need to transgress the dichotomy between sociality and biology when understanding the causes of so-called medical problems. Furthermore, Wolf-Meyer intriguingly moves beyond the original insights from Canguilhem (1978) when including the wider economic structure in a description of how an industry has emerged around disciplining bodies to the needs of industry itself. The article precedes a book, and it does indeed make its reader look forward to see the argument fully un-

folded in a monograph. A book will provide a better chance to elaborate on details and multiplicity, for example, where the article simply says “American” and does not allow space to account for differences in how perceptions of “appropriate sleep patterns” change over time and according to social grouping. Also, it could be interesting to see whether the book will allow closer ties with, for example, studies of architectural design changes affecting the orchestration of sleep and marital relations (Cromley 1990) and perhaps even historical work on in- and out-of-bedroom practices as an intimate aspect of the production of the surplus labor that perhaps, or perhaps not, preceded the capitalist expansion in the United Kingdom (see Abelove 2007).

The article challenges the medicalization hypothesis and the society/nature dichotomy, and yet it is simultaneously framed as a story about American capitalism. In my view, the points about capitalism need strengthening. The emphasis is largely on ideas and institutions regulating the rhythms of work (even when not necessarily profitable in an economic sense) rather than aspects usually associated with *capitalism* (e.g., the mode of production, forms of exchange, class, commodity fetishism, profit accumulation, or historically specific property regimes). If Wolf-Meyer wishes to suggest that the rhythms described are an unexplored aspect of the capitalist mode of production, it would be useful to see an elaboration of how this insight adds to or changes the insights generated in the wider literature on capitalism and bioeconomy. As it reads now, the argument in many ways appears more closely related to the *biopolitical* literature on “hygiene” (cf. the words chosen by Betsy; see, e.g., Armstrong 2002; Bashford 2004) than to *biocapitalism* and economy.

With the focus on harmonization, disciplining, and “hygiene,” an image is conjured of almost inevitable subjection to the current natural hegemony. If disciplining and subjection are worrisome, it makes it slightly ironic that Wolf-Meyer simultaneously distances himself so sharply from James Walsh’s attempt of creating space for difference (however naive). First, I think the analogy to Huxley is misplaced when not highlighting the difference between breeding biological difference and suggesting social ordering based on presumed existing biological differences. Second, the dislike of Walsh’s attempt to accommodate difference provokes thoughts on how Wolf-Meyer imagines his own analysis facilitating alternative forms of ordering. It is practically a truism to say that a given dichotomy is false (as the one between biology and society), but which alternatives do a better job—and for whom? If an anthropological analysis facilitates rethinking what we have come to take for granted, how would Wolf-Meyer like to see his work used—and by whom? Often we point to policy makers when making our recommendations. It is quite paradoxical considering how it is a well-known fact that policy making is not very rational and rarely uses our advice as we would have wanted (Weiss 1986). Alternatively, one can address the people who encounter “sleep problems” and become subjectified in a disciplining regime. Is the book

intended to allow them to rethink their so-called sleep problems through the insights it provides? If so, I still need to see the conclusions spelled out a little more clearly. Hopefully, this is what we will get once the book is out.

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This article is based on a simple proposition: good-enough sleep is both big business and good for business. Accordingly, individual biologies are imbricated in the institutions of capitalism. To explain this how this works, Wolf-Meyer uses the concept of natural hegemony.

We spend on average one-third of our lives asleep, but some of us spend much more time, some much less. In wealthy capitalist countries, we spend considerable resources on the setting (bedrooms), resources (beds, mattresses and pillows, sheets and blankets), and personal items (pajamas) to ensure maximum comfort and attractiveness while asleep, although few people see us in this state. We invest in the materials of sleep partly on the assumption that the settings and accoutrements of sleeping will enhance our experience and, in theory, assist our ability to go to sleep and stay asleep. Much of the money we spend on travel, internally and internationally, too, is for “quality” sleep.

Those who spend more than the normal time sleeping—11, 12 hours or more—are largely overlooked by science and business; they are defaulting on social expectations—their sleepiness is a sign of slothfulness. Those who spend less time than normal are valorized: Winston Churchill, Bill Gates, Albert Einstein, among others, are constantly written about as sleeping little, instead spending their time in economic, intellectual, and political pursuits. Significantly, because their waking time—when others are asleep—is used productively, they are idealized participants in a capitalist system that aspires to constant activity and growth.

But most people who sleep for fewer hours than is considered normal, who sleep irregularly and/or fitfully, or who do not sleep at the appropriate time are troubled by this deviation, not necessarily because of social inconvenience (everyone else is asleep) but because they may feel tired or because they aspire to fit in with the schedules of the majority and are bothered by their deviance. Their inability to go to sleep at the “right” time and for the “right” amount of time leads people to sleep specialists, clinics, taking medication, and trying various other body techniques and strategies (chamomile tea, hot baths, meditation, counting sheep). And the lack of sleep matters, as Wolf-Meyer explains, because of the timing of the rhythms of everyday life—the hours at which

people are expected to work, shop, and undertake other activities (cook, wash clothes, etc.).

Wolf-Meyer argues not that there is (always, inevitably) a biological basis to individual problems and social lives nor that biology is socially constructed but rather that biology and sociality, nature and culture, are braided and recursive. Biology and culture exist in productive tension; each constitutes and reinforces the other. It works for sleep, as he illustrates, but also for sex (Gramsci); it works, too, for illness and disability because the reality and relationship between the physical and cultural are at the core. Thus, individual behaviors are defined in accordance with a biological convention, people need to conform to this to meet institutional and societal goals, and those who are aberrant should seek assistance to rectify this.

Since medical science defines good and bad sleep and its variants, provides many of the “cures” and treatments for sleep disruptions, and validates various other interventions (such as mattresses), then sleep and body rhythms are medicalized. Medicine and capitalism are cap in hand, and I am not convinced by Wolf-Meyer’s efforts to decouple the two. Medicine does well out of sleep’s pathologies. Pharmaceutical companies and alternative and complementary medicine businesses and the extensive marketing of their products, adult sleep clinics and infant sleep-training programs, the extensive research in sleep and alertness in psychology and neuroscience—all reflect the seriousness with which sleep and its disruptions are regarded.

But Wolf-Meyer also underestimates capitalism’s investment in technologies and practices that produce sleeplessness and so create the parallel market to produce sleep. In his first case study, he reports Betsy’s long working day and commuting but without the busier and noisier details—the phone calls (hands-free, of course) while driving; the intensity in the office; the heaviest meal at the end of the day; the constant flow of e-mails and text messages that do not respect the divisions of work, leisure, and sleep. Betsy’s 60 hours fail to capture the full extent to which she is working, even while trying to sleep. Betsy and other people around the world are participants in a system of capitalism that is 24 hours a day, regardless of when they sleep and wake. For while it might appear that America sleeps while the night shift is outsourced, in reality people’s work and lives are much more tightly interwoven and disruptive. Wolf-Meyer’s forthcoming book will, I hope, add in the complications to sustain his arguments.

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Wolf-Meyer’s paper applies the analytical tool natural hegemony to examine the relationships between nature and Amer-

ican capitalism, to understand “those mediating features of life in the world that are irreducibly biological and social in both cause and effect.” The theme is a current response to one of the classic debates in anthropology, nature versus culture. Natural hegemony, as an analytic, is intended to challenge theories of both naturalization and biopolitics, which Wolf-Meyer considers as weak and strong social constructionism, respectively. Both approaches are shying away from “natural” or physiological predispositions of certain individual bodies. According to the paper, the flaw in such “social constructionism” lies in either overlooking physiology or simply treating nature as a bedrock on which social forces work. Nature, in Wolf-Meyer’s framework, itself is reconstituted as a “modulating aspect of society and subjectivity.” Natural hegemony differs from the conventional models of hegemony. Rather than favoring political and moral forces, it finds its legitimacy in the logics of nature, thus rendering capitalism universal and inevitable.

It is also intriguing that Wolf-Meyer does not follow the widely used theory of “medicalization” to perceive and interpret the contemporary politics of sleeping management and its disorder. According to him, sleeping politics are not merely disciplining techniques that work at the individual level but also “the construction of a particular ordering of nature and society.” Individual should not be perceived as individual in isolation but as One-of-many. Thus, in “late” capitalism, the conception of individual becomes meaningful only through intensified relationships with institutions. Individualization, or institutionalized individualism (Beck and Beck-Gernsheim 2002), becomes one conceptual tool to understand American capitalism as elucidated at the end of this paper.

Drawing on three events in different countries, the disappearance of the “siesta” in current Spain, the retreat from nighttime business in major U.S. cities, and the synchronization of Indian call centers with U.S.-based corporations, Wolf-Meyer convincingly argues that the spatiotemporal imperialism exerts its power over human bodies at the global level. And like colonial imperialism, it certainly privileges some societies and cultures at the expense of others. Though Wolf-Meyer’s paper explicitly discusses American capitalism as one particular cultural form, he also invites ethnographic projects on such seemingly globalized phenomena. His study provides an insightful tool to understand global capitalism and could certainly contribute to the ethnographic research in a global city such as Shanghai, my current research site.

Over the past 30 years, China has witnessed the rapid—and probably the most radical—transformation from a state-controlled socialist society to a market-driven capitalist one. Ever since 2008, when I first arrived in Shanghai, I have been drawn into the research project of high-status office workers’ everyday lives. I was constantly struck by their bold statement of one commonly shared desire: “wake up naturally in the morning.” According to our research, “having a good night’s sleep” increasingly becomes a kind of luxury that only few enjoy. Though we still lack data on how many of our research

subjects are suffering any kind of sleeping disorder, we do witness the “sleepy” white-collar workers searching for kinds of alertness-producing products such as tea and caffeine, as in the American life documented in this paper. In addition, the most popular commodity in the Chinese market is a refreshing or invigorating toner that promises to cover the look of being tired instantly. Such a product is greatly welcomed by the white-collar male, for looking energetic and keeping alert in the workplace are primary requirements for a successful man. In this case, the Chinese local “face” value is cunningly mingled with the global “productivity” value at the site of the individual and labor power. It is still too early to say that China is following American capitalism to launch the same biopolitical projects resourcing to nature to produce an ideal subject. After all, in China, the dualistic thinking of nature and culture is not as “natural” as in America. However, we do witness the penetrations of spatiotemporal imperialism, for instance, the adoption of the 9-to-5 workday schedule; long hours on metro transportation; replacement of napping time (usually one to two hours long) during the afternoon, with no more than half-hour-long lunch breaks; and working overtime. Interestingly, such a work routine in the guise of “challenge” becomes the lifestyle many Chinese youth dream of. How can we theorize and conceptualize these seemingly global phenomena? How can we articulate biopolitics in local contexts without reinforcing capitalism’s universality and inevitability? Most important, how should we native anthropologists offer ethnographic accounts of our own culture to engage into the nature/culture issue in American academy? These are questions that demand cross-border intellectual discussions. While I would be interested to see more primary ethnographic data on scientists and clinicians, Wolf-Meyer’s paper nevertheless is a timely discussion of temporality with relations to new forms of life emerging from new social ordering.

Reply

First, my thanks to the commentators for their engagement with my work and for providing me with an opportunity to clarify and expand on my thinking. As they note, this article serves as an appendage to a much longer study, *The Slumbering Masses*, which draws out many of the cases presented here, as well as the theoretical concerns. I see their comments falling into three groups, namely, those regarding the need for a neologism such as “natural hegemonies” and its pitfalls, the role of capitalism in my analysis, and the social ramifications of my argument. The commentators also expand my cases, for which I am grateful: Zhu’s compelling analysis of sleep and everyday life in China, Harden’s discussion of the many meeting points of nature and capitalism in the United

States, and Manderson's reflections on consumerism and sleep all point in generative directions for future scholarship.

Every neologism obscures as much as it exposes. What I hope with "natural hegemonies" is that it opens up attention to new sites of conflict and concern. What natural hegemonies help to expose is that institutions and individuals are rendered similar to one another, quite unlike Foucaultian approaches to discipline, where expectations about institutions can be quite different from the individuals they produce. For Foucault and his adherents, prisons, hospitals, barracks, schools, and other similar institutions strive toward docility in those individuals they produce, and this docility is the product of a flurry of mechanisms on the part of institutions—hardly docile in themselves. As Manderson points out, the shorthand of discussing Betsy's work life as being 60 hours each week ignores that Betsy had been rendered as incessant as the corporation she was employed by and the demands placed on the organization were meted out on the bodies of its laborers, resulting in their dependence on particular bodily and consumptive practices. Marcus's use of caffeine serves to mediate between his bodily needs and institutional needs, and it is doubtful that, given different work expectations, he would resort to the same excessive use of caffeine that led to the exacerbation of his disorderly sleep—the demands of productivity ensure that he makes recourse to some kind of stimulant. Natural hegemonies, as I conceive of them, control individuals through the production of parity between individuals and the institutions they interact with, although in order to achieve this end, some mediation is required—in the case of sleep and alertness, it is increasingly medicine that fills the gap. In other cases, medicine may not be so central in these formations.

One of my trepidations with "medicalization" is that it focuses our attention on that which falls under the thrall of medicine, however broadly we might conceptualize that category. As Harden points out wonderfully, not all natural hegemonies are sites of medical intervention: black hair in the United States currently falls outside of the auspices of medicine, but it has physiological, social, and economic consequences for individuals and societies (as Indian women grow their hair for export). Add to this those concerns that are partially medical but inspire industries with a tertiary relationship to medicine, as in the case of breast-feeding that Harden mentions briefly or the case of skin lightening in India. There are medical justifications for breast-feeding in the United States, but most of the pressure, expertise, and counseling around breast-feeding come in the form of advice for mothering, which emphasizes the "natural" connection between mother and child inspired by close contact and shared substances. This advice may come from a medical professional, but one is just as likely to encounter it from a neighbor, friend, or parent—with no recourse to medicine as a rationale. Similarly, skin-lightening treatments often come marketed as pharmaceuticals or medical therapies, but their

relationship with dermatological practice is tangential at best. Medicalization fails to fully capture the expansiveness of these sites of conflict, but other theories may open them up for more robust analysis.

My conceptualization of capitalism is significantly different from that of Marx, Gramsci, and their followers, although it is necessarily indebted to them. I draw on Deleuze and Guattari's (1987 [1980]:88) theory of assemblages to understand capitalism and its emergent forms. Assemblages bring together and simultaneously isolate bodies, actions and practices, rules and expectations, acts and statements, ideologies and understandings into an orderly world; they are irresolvably material and abstract. Assemblages are both historical and unfolding, reproduced and changing through everyday activity. Our everyday lives are assemblages that bring together spatiotemporal rhythms, individuals and institutions, and order and disorder. As such, they depend on institutions; institutions are the forms that produce variable expressions of the content implied in the assemblage. Work, school, the family, the legal, the medical—among others, including the economic—provide this foundation for everyday life. And the very idea of everyday life binds these diverse activities and institutions into a whole (Lefebvre 1987). Capitalism is such an assemblage, and although we might want to see a direct causal relationship between the rise of industrial capitalism and particular forms of sleep, no *direct* relationship exists. Rather, many modes of sleep existed in the nineteenth century, and specific forms became intensified in their presence and legitimacy because they accorded with the demands of capitalist production. And capitalism succeeded as a form not because it was some abstract system that was able to achieve hegemony but rather because of its ability to harness these intensifications and to further elaborate on them—to the point where the contemporary spatiotemporal form of American society seems both inevitable and natural.

There was no guiding hand in the development of modern American sleep but rather many individuals and institutions that led, in an uneven and piecemeal fashion, to the varieties of sleep we enjoy—or do not enjoy—today. This is why I pluralize "rhythms" in the title to the article, inferring that the many cases I provide resonate with one another but fail to add up to one consistent logic that has a single cause. Rather, like an orchestra with many conductors, there are moments of overlap and synchronization, and there are moments of dissonance, contradiction, and irresolution. But what keeps American sleep on course is an understanding of its normalcy, or at least that it might be made normal if it is aberrant. And, increasingly, as Harden, Manderson, and Zhu all demonstrate, being normal also means consuming normalcy; American capitalism reinforces itself through these intensifications of desire that always aspire to an elusive normative ideal. Zhu's brief discussion of sleep and alertness in China points to how the same form can be enacted quite differently based on distinct conditions—capitalism is making

sleep in China similar to yet fundamentally different from sleep in the United States. And yet “nature” plays a very important role in understanding healthy sleep and productivity.

This is also to argue that the capacities of human bodies and capitalism come into being together—one does not precede the other. I write that capitalism produces its bodies, and by this I mean that there is a mutual reinforcement of economic and bodily forms and that American capitalism comes to reinforce particular bodily capacities over others. Allopathic medicine, which arose alongside industrial capitalism in the United States and Western Europe in the nineteenth and twentieth centuries, is thoroughly ensconced in the cultural assumptions at the heart of capitalist practice, as Manderson notes. This history of sleep science and medicine in the United States neatly aligns assumptions about “normal” sleep with dominant spatiotemporal rhythms of everyday life; how it has developed elsewhere, in collaboration or contradiction with American forms, is an avenue for further study.

Finally, I argue in the conclusion of *The Slumbering Masses* that anthropologists are charged with the need to found a politics of biological diversity that matches earlier attempts at inclusive cultural politics. Hoeyer rightly asks what the implications of thinking through sleep’s possibilities might be, echoing Armstrong’s concern with how sleep might be organized differently before or outside of capitalism. I suggest that one way forward is to embrace “multibiologism,” a conception of human difference not as pathological but as variation along a spectrum of potentiality. Hoeyer points to my discomfort with Walsh’s neo-Darwinian thinking as a site for where I might elaborate my thought differently or at least spell out my critique of Walsh. What I see occurring in scientific thought like Walsh’s is the recapitulation of eugenic thinking in modern guise (no selective breeding but social selection nonetheless) that aligns individuals with particular roles in society based on the former’s capacities. This is untenable and unethical in that it results in valuation of some over and against others. Those reduced to the low end of the scale are likely to become pathologized for their shortcomings, leading to medical intervention or more extreme forms of sanction. As Manderson notes, those who sleep excessively are understood as being slothful, in need medically and morally. Rather, what we need to rethink in this moment of intensified interest in life is the old Marxist credo of “from each according to his ability, to each according to his need” in a context where need and ability are one in the same capacity. Sleep may be arranged in many ways, as might work and the other institutions that individuals participate in throughout their everyday lives; that Americans accept some social orderings as natural and others as cultural is precisely why a concept such as natural hegemonies is sorely needed.

—Matthew Wolf-Meyer

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