INTRODUCTION

Life Support

India's Production of Vital Energy

In October 2002, an article was published in the *Journal of the American Medical Association* (JAMA) on the phenomenon of impoverished people in India selling kidneys for transplant.[1] The JAMA publication was one of the first in mainstream medicine to recognize the existence of the international trade in human organs. In the years since, critical public discourse about the organ trade has primarily focused on ethics, values, and human rights as they allow for and can potentially limit the exploitation that occurs through the market in human organs.[2] However, the advent of the procurement and circulation of human organs as a market also reflects a logic and geopolitics that emerged together with outsourcing practices characterizing the global economy in the 1990s. This logic and geography have enacted and continue to produce new forms of the global distribution of labor, first as outsourcing emerged from colonial geopolitics and later as what anthropologists of the biotechnology economy are calling biocapital.

The creation of value through the growing realm of feminized work sourced from India, which for the purposes of this study includes domestic work, customer care, the production of biological commodities and services like human organs and gestation, and "noninnovative" knowledge work, occurs through the investment of human energy in other bodies—both individual and social bodies—as well as through the sociocultural valorization of those bodies and communities. This form of life support is transmitted across boundaries of cultural and social difference, across gendered divides within the same household

as well as between distant points in the international division of labor. The conditions, technologies, and sensibilities that engendered outsourcing have become more complex and have extended in ways that have enabled the rise of markets in biological commodities and services. These include commodities such as human organs for transplant, engineered medical and therapeutic devices made from human biological materials, and services such as the use of an organ or body temporarily, as in gestational surrogacy or clinical trial participation. Revisiting industries and technologies involved in outsourcing is an important step in understanding shifts in the nature of transnational production as well as the inflection of globalization by the history of colonization. As I explain in what follows, India's labor history is central to mapping how new modes of racialized and gendered labor have been produced and allocated on a global scale, and how these techniques have been moving decisively into the realm of biology.

Labor, like human vital organs, can be understood as a specific portion of a person's body and life that can be made free to travel by being constructed as "extra" or not needed where it is currently located. Before a human kidney or a given task or type of labor can become seemingly unnecessary in its immediate context and therefore available for outsourcing, it must be the object of specific cultural and material practices that establish it as unnecessary. For example, the construction of the second kidney in the human body as surplus illustrates the way that medical technology, in this case surgical technique and immune-suppressing pharmaceuticals, intersects with technologies of mobility and the medical definition of the utility of kidneys as reduplicative in the body, thus rendering it surplus in the context of the global demand for transplant organs. As the construction of a specific idea of surplus, the kidney is "freed" to have an existence separate from the body that produced it. However, tracing the flows of capital that allow for the mobility of the kidney also reveals concomitant limits on the mobility of (whole) bodies that lead people to need to sell an organ, limits that are created by the same processes that free the kidney in the first place.[3]

The central role played by reproductive labor in the economy of outsourcing makes evident how much contemporary transnational capitalism, like

earlier forms of accumulation, has come to rely on the reproduction of life for continued growth and expansion. Human bodies and subjects are thus playing a role structurally similar to that of land and natural resources as they were dispossessed in the period of capitalist growth during European territorial colonialism. The rapid pace at which scientific knowledge of bodily production through cellular and molecular biology and genetics has expanded, coupled with pharmaceutical advances and the exponential growth of distance communication and Internet technologies, has opened up the human body and subject as a greatly expanded site for annexation, harvest, dispossession, and production. Although the enabling technologies and market conditions may appear quite different, activities such as organ selling and gestational surrogacy share commonalities and sometimes overlap with the paid production of empathy and attention or the repression of subjective needs, including creativity and socially meaningful work, for the sake of the disciplined reproduction of knowledge forms found in work like contracted software coding. These activities, whether glossed as outsourced service, knowledge, or care work, exceed conventional definitions of labor as they sometimes recapitulate, sometimes carry forward, and sometimes reinvent technologies of dispossession, accumulation, and constraint on autonomy.

Life Support argues that any analysis of biocapital must engage its roots in colonial labor allocation as a project of the racialization and gendering of labor. Sarah Franklin and Margaret Lock define biocapital as "a form of extraction that involves isolating and mobilizing the primary reproductive agency of specific body parts."[4] I argue that this form of accumulation and production can be seen in its historical context of colonialism and its antecedents as a system of continuing the transmission of what I call vital energy—the substance of activity that produces life (though often deemed reproductive)—from areas of life depletion to areas of life enrichment. Thus, rather than focusing only on biological science and biotechnology as sites for producing value, this study identifies the social logics within biological and labor markets and looks for evidence of how capitalist accumulation continues to rely on reproductivity. This approach to biocapital reads narrative accounts of outsourcing as transmitting vital energy from producers to consumers, which is evidenced in the

latter's improved ability to thrive and perpetuate individual and community life. Thus, unlike other studies that focus on the economy of biological materials, production, and value, in this book biocapital, describes an overall market in life-supporting energies and services, produced through ways of inhabiting the body and understanding life that evolved out of earlier (gendered and racialized) social and economic forms. The notion of life animating this understanding of biocapital references human biological and social existence as inseparable, and hence the continuation and thriving of life can mark the accumulation of vital energy, whereas its depletion is marked by the opposite.

This book tracks transitions to new types of laboring subjects and new forms of labor by conducting a multisited study of labor outsourced to India from the 1990s through the first decade of the twenty-first century. It focuses on India in particular because studying India's role in outsourcing as part of globalization highlights the central role of social and biological human reproduction, mutually dependent and imbricated, in the growth of the global capitalist economy. Beginning with forms of labor and socialities that emerged in information technology (IT) and call center work, it then follows these subject and labor formations into the emergence of subjects of commercial biological labor in transnational surrogacy. Theorizing the role of reproduction and reproductive labor in outsourcing, it seeks to demonstrate the growing importance of vital energy as a privileged mode of transmission and accumulation, as demonstrated by the trajectory from colonial labor allocation to outsourcing in knowledge, communications work, biological processes, and human reproduction. This project argues that colonial labor extraction was based on a principle of the extraction of not only economic (monetary) sources of value, of raw materials and labor-power, but also of life itself. Thus I read the contemporary commodification of life and vitality as having a precursor in earlier colonial modes of exploitation, contributing a deeper historical context to the theoretical analysis of biocapital. I am able to trace this trajectory by focusing on India as a postcolonial site, particularly through an analysis of the ways in which the outsourcing of reproductive labor became central to colonial capitalist accumulation. India is a particularly rich site to examine because of the uniqueness of its central role in British colonialism and its

position in the new global economy as a rising technological and science leader. I bring analyses of biocapital together with older scholarship about outsourcing to highlight the continuities between old and new modes of capitalist accumulation and their reliance on the capture of life and reproductivity. Outsourcing is understood as the relocation of productive processes and labor outside the national location of a given corporation or economic entity, but I historicize it as a recent instantiation of labor allocation that recruits vital energy in addition to labor to aid in a form of primitive accumulation and restricted autonomy associated with colonial exploitation. I do this through a survey of some of the ways that the biological apparatus of the human and its inseparable subjective being become objects of biopower and resource exploitation as well as how new forms of life, labor contexts, subjectivity, and sociality emerge through these conditions. Each chapter examines the ways in which subjects mark and are marked by both the deprivations enforced through relations of outsourcing and forms of connection that arise unexpectedly in excess of these same relations. When the legitimate and illegitimate, visible and invisible processes and effects of outsourcing are analyzed together, a new kind of biopolitics of hypermobility in the global economy emerges. The history of this biopolitics of hypermobility, where those aspects of the subject or parts of the body useful for reproducing life elsewhere travel easily without the whole, is located in the gendering practices of heteropatriarchy and the constraint on lives and subjects inherited and continuing through colonization and its practices of racialized labor allocation. Thus this project takes up the concerns of postcolonial studies, critical race studies, and feminist materialist and science studies scholarship interested in understanding how biopolitical relations—in terms of both the nature of new subjects and new socialities—emerge through a growing formalization of reproduction, both social and biological, as a mode of generating and accumulating wealth-as-thriving.

Biopolitics and Colonial Outsourcing

Outsourcing, as a discourse, describes the utilization of new communications technologies to manage production in a transnational chain by assigning components of production, administration, and support to several different

locations. The conditions leading to outsourcing also led to other practices of flexible accumulation such as the use of sweatshop labor and the institution of special economic zones and free trade zones.[5] These practices mark both the degradation of working conditions and the legal gray areas made possible when transnational corporations are detached from national regulatory mechanisms. The rich literature on globalization in social and cultural theory produced at the turn of the millennium details new iterations of an international division of labor and its impact on social relations and production.[6] Ethnographic studies like those of organ selling, domestic labor migration, and sex work examine ways that those located in the Global South maneuver to access global flows of wealth despite being located outside of their centers of consumption.[7] Such studies draw attention to new kinds of labor and commodities arising out of globalizing technologies and new kinds of mobility generated alongside outsourcing as part of the same originating conditions.

Life Support describes a system that exists currently as the inheritance of the colonial reorganization of production and consumption and acts as a supplement to the process and geography of outsourcing, where cost-effectiveness mandates locating a labor process where it is cheapest, without concern for how that labor has been made to be cheap. This system genders the labor of reproduction so that some work becomes that of merely reproducing life and culture, whereas other work is deemed creative, innovative, and productive in itself. The period of globalization and growth of flexible production in the early 1990s that led outsourcing to become a common and widespread business practice around the world was also one in which imperial legacies and labor maps coalesced with the contemporary neoliberal restructuring of domestic and global economies. In the period of European colonialism, colonies served as sites of raw materials to be expropriated for production in colonial metropoles and then sold back to the colonies as finished goods. The international division of labor grew out of such colonial organization.[8] Though the conventional discussion of the older international division of labor does not theorize it as structured around reproductive (biological and affective) labor, in the sections that follow, I read it as historically and presently grounded in exactly those forms of labor. In so doing, my reading highlights the ways in

which the earlier international division of labor set the stage for the current one that constituted the geopolitics of life support rendering India's legibility in the 1990s and early 2000s as a labor market primarily for the reproduction of the biological and affective life of other places.

Biocapital as a system of capitalist production, accumulation, and speculation that relies directly on reproductivity as its primary motor has been elaborated and expanded by the reach of biotechnologies, but it is not a new system. The antecedents of contemporary bioeconomies, which rely on the patentability of innovative knowledge and the exploitation of the undervalued and often invisible reproductivity of humans and other organisms and of their parts, such as tissues and cells, were present in the economies of colonialism and slavery in which dehumanized and unfree workers were also self-reproducing capital. Examples include the gendering of indentured tea plantation labor in colonial India to create a supply of new workers for the necessary but undervalued labor of cultivating, picking, and processing tea leaves to fuel the growth of the international trade in tea,[9] and the instantiation of indentured labor from India for plantation work in other British colonies,[10] accompanied by a similar reliance within the overlapping economy of Atlantic chattel slavery.[11]

Anthropological work on biocapital has identified biotechnologies and their products, such as pharmaceutical research and development[12] and immortal cell lines and other cellular engineering,[13] as marking a new period of capitalism and capitalist growth interested in producing and capitalizing on life from the scale of the cell.[14] Nikolas Rose traces the rise of the bioeconomy generally to the political order of biopolitics in the United States and Europe, noting the rationalizing of vitality into "a series of distinct and discrete objects, that can be stabilized, frozen, banked, stored, accumulated, exchanged, traded across time, across space, across organs and species, across diverse contexts and enterprises, in the service of bioeconomic objectives."[15] However, life is objectified and made legible through culturally specific projects, and as Stefan Helmreich has argued, it is how biology and biological substances are made to matter through the imaginations of biotech practitioners and, to a lesser extent, social analysts that frames the centrality of biological reproductivity to biocapital, particularly in light of Marilyn Strathern's observation

that the imagination of biology as a platform for "reproducing the future" is a Euro-American belief.[16] Life as vital energy has been made available from India for global consumption, both as biology and as what Gayatri Spivak calls affectively necessary labor, through the intersection of legacies of British colonialism with Euro-American cultural and economic logics embedded in contemporary practices of global production and consumption.[17]

India is unique in the ways that science, the market, labor, and access to global circulation were tied together through the British colonial project and have continued to remain entangled. As Gyan Prakash notes, "constituting India through empirical sciences went hand in hand with the establishment of a grid of modern infrastructures and economic linkages that drew the unified territory into a global capitalist economy."[18] The construction of some modern infrastructure in India and economic linkages to Europe as well as other colonies was singular among the British colonies.[19] Infrastructural development in the 1850s promoted local industrial development, which created conditions that supported capitalist enterprise.[20] Related to the development of the economy was the ascension of an Indian business class, which evolved into a powerful bourgeois class by the postcolonial era.[21] It was particularly the "civilizing mission" of the British as it played out in law and the formulation of private property,[22] and the instituting of a British-style educational system intended to create a new colonial class of English-speaking Indian elites—"Indian in blood and color, but English in tastes, in opinions, in morals and in intellect"[23]—that distinguished India from other British colonies. Entry into the elite tiers of the colonial middle class was conditioned by property ownership and occupation, as these were crucial markers of the family background and caste affiliations constituting the intertwined social, cultural, and economic capital that structured the formation of this class.[24] Upon independence, middle-class interests came to dominate state-led development and encouraged a focus on rapid technological and industrial growth.[25] This history has contributed to the production of a liberal, property-interested, English-speaking, and Western-educated class who were positioned to take advantage of India's role in globalization and the investments and connections that came with the liberalizing of India's economy upon its acceptance of an

International Monetary Fund (IMF) loan in 1991. State support of science and technology development and education after independence nurtured the growth of the technical expertise and infrastructure that eventually enabled the success of technology-based industries, such as business process outsourcing and biotech, and created the conditions of possibility for markets in reproductive technology services and commercial surrogacy.

The British colonial management of Indian labor created settings and conditions of work that served as a way to extract value from the lives of workers in addition to their labor. Studying those conditions in comparison to the conditions entailed in business process outsourcing in Indian IT and call centers, and as they manifest in the still-developing industry of gestational surrogacy, creates a new perspective for thinking about emerging transnational labor markets like gestational surrogacy in India, and for attending to the effects of the conditions of work themselves as they are described by those who participate in them. The techniques of extracting vital energy from the lives of workers as an accumulation strategy, which depend on structures of racialized and gendered difference built into transnational production and consumption, can be tracked in each labor setting in different but connected ways that are linked to colonial techniques even though they may not all be colonizing in themselves.

The dependence of both outsourcing and biocapital's growth on reproductivity also has antecedents in the British colonial project in India. Thomas Malthus's lectures and essays on population while a professor at the East India Company College in England promulgated the idea that India had a surplus of reproductivity and that this reproductivity could be a source of material wealth for colonizers. The discourse of race and India, and particularly of Indian workers as numerous, easily replaceable, and best suited for reproduction, becomes transformed in different settings of labor, but Malthus's argument for the need to manage India's reproductivity and harness it for profitable production is sedimented into the industries that transmit vital energy from India's workers to its consumers. The management and disciplining of sexuality and affect, particularly when they threatened to cross lines of racial difference, were central to the politics of empire.[26]

Settings of transnational labor in India continue to work within governmental policies and cultures of management that remain connected to the colonial period through both formal structures, such as law, and through social relations and conventions. For this reason they are postcolonial in the sense that they operate within the legacy of British colonization but do not replicate its forms. Other forms of labor in South Asia continue to operate much as they did during British colonization. For example, Piya Chatterjee tracks structures of racialized and gendered labor organization that bring together colonial, patriarchal, and feudal structures of power on contemporary tea plantations in India's northeast. Along with these coexisting structures of power and subjectification, the continuities between the British colonial plantation and the contemporary Indian-owned plantation blur any ready distinction between the time of colonialism and the time of postcolonialism for people who have inherited their jobs growing, picking, and processing tea.[27] Yet other forms of labor continue in ways inflected by colonization but predating them, such as forms of caste-based servitude and indenture found all over the subcontinent.[28] Work in postcolonial studies has underlined the ways that racial logics are folded into recognition of the human and the subject[29] and into how notions of civilization, progress, and the human were built into and understood in terms of the categorizations of everyday life,[30] narratives of history, modernity and the nature of political action,[31] medicine,[32] and the distribution of labor under the British.[33] The study of colonial labor practices asserts the necessity for looking at power, domination, and political structure in understanding the work of subjective self-crafting that occurs in a given labor context. The self-forming of subjects that appears in the ethnographic and fictive narratives of call center work, IT practice, and surrogacy experiences in this book reflect processes that are specific yet congruent with those in other spaces of labor across different classes in colonial and modernizing India.

The 1990s gave rise to business process outsourcing as a growth industry in India, and the discourse of outsourcing became a way to describe how globalization was creating new forms of mobility in production, "freeing" components of the production of commodities for global relocation and thereby

leading to new "scapes" of technology and production that also affected politics, culture, and social relations.[34] The conditions and effects of outsourcing produced the highly visible sites of transnational production and labor most closely identified with the Indian economy, including IT and call centers. These industries were celebrated in India as harkening a new emergent economic era, and in international discourse as part of the turn of the millennium global economics formulation of BRIC (Brazil, Russia, India, and China) to describe those national economies that characterized what was new about the global economy and to imagine the future toward which the global economy was headed.

The legacy of British colonial labor formations, tied inextricably to the process of feminizing labor, can be recognized in contemporary processes that "civilize" low-earning and often lower-caste workers, such as the women who leave day work and small-scale farming to become gestational surrogates, by initiating them into property relations to their bodies and a sense of entrepreneurship of themselves. It can also be seen in the service of rehumanization provided to consumers by the labor of emotion and attention performed in call centers and in the creation of spaces of innovation and creativity in highly valued IT work sites at the expense and by the support of those working in outsourcing sites. Though such transnational projects may at first seem as divorced from the politics of racialization as they do from colonization, the "racialized economy that connected and characterized 'native' essences to their customary work" in the colonial period argues otherwise.[35] Jodi Melamed defines *racialization* as the "process that constitutes differential relations of human value and valuelessness" through racial distinction of bodies and spaces.[36] Indian labor retains the mark of colonial characterizations from the British period that continue to signify its value in different international labor markets. Hence coloniality and racialization, in addition to the gendering of labor, are essential processes to track even in the contemporary moment in India's transnational labor history, which was primarily instantiated through British colonial practices combining technologies of self making and empire building and projects of economic conquest and exploitation. Globalization and its division of labor mapped the work of reproduction onto the decolonizing

Global South, creating a system that evacuated resources, labor, and value from those spaces to invest it into the Global North, much as the former colonial metropoles have benefitted from a similar exploitation of what world systems theory named the "peripheries."

With the increasing role of biocapital as an engine of the international market, and the human body (along with the realm of biological life in general) as a new frontier in biotechnological resource extraction, social and biological reproductivity becomes of central interest in understanding all labor and human life under biopolitical management. Colonialism, the subsequent international division of labor, and the recent phenomenon of outsourcing elaborated a system of life support for those spaces into which the vital energy of service, affective, and biological labor could accumulate, depleting the same where it is produced. Though it can be argued that capitalist exploitation in India is not a form of neocolonialism but rather the vast differential in wealth between the transnational capitalist class and the working poor enabled by the liberal contract and the failures of informed consent,[37] the replacement of the geopolitics of imperialism is an ongoing process, and the biopolitical relations in that process are still emerging and yet to be theorized.[38] For example, the transnational capitalist class represented in the emergence of transnational corporations in the 1980s engaged in neocolonial practices of resource extraction and dispossession of laboring populations.[39] Kamala Kempadoo argues that neoliberal reforms imposed by the World Bank and IMF have been a process of recolonization in the realm of female, reproductive work.[40] Such analysis suggests that the agents of neocolonialism are not to be found in state formations but rather in the differentiation of populations whose elite strata have the means to accumulate value that is generated through limitations on the potential for reproducing life in nonprivileged spaces and in controlling the inherent excesses of this potential through practices and politics linked to those of imperialism.

Vitality Economies and New Socialities

Studying the accumulation of vital energy as a form of biocapital provides a way to specify continuities and differences in the contemporary global economy

in ways that modern liberal concepts of freedom, consent, or even labor do not fully accommodate. Tracking vital energy, rather than value, as the content of what is produced and transmitted between biological and affective producers and their consumers holds on to the human vitality that Karl Marx describes as the true content of value carried by the commodity and the absolute use-value of labor power to capitalist production, while maintaining the argument that what is produced by these activities exceeds what is recognizable in the commodity's exchange value. It makes plain the connection between the exhaustion of biological bodies and labors in India to extend "life" in the Global North and a longer history of power relations underpinning what may seem like an emerging form of biopower in sites like commercial surrogacy. The transmission of vital energy, a life necessity, out of spaces of production also represents a form of biological accumulation in the thriving of consumers, even when the commodities themselves are not biological, and arguably works within a neocolonial structure of accumulation. In this sense, "biology" has the characteristics of a mode of accumulation, both as "historically specific, congealed embodiments in the world as well as the technoscientific discourse positing such bodies."[41]

The transmission of technical work and services through outsourcing in call centers and IT also circulates affective commodities and capacities through a gendering of labor that was scaled up through globalization. This scaling up built on techniques of generating wealth by the expropriation of reproductive energies established in smaller-scale systems set up in European colonialism and within the heteropatriarchal household economy. Tracking affective and biological production in outsourcing as vital energy opens up possibilities that attending to labor alone may not. Identifying specific subjective and material processes of expropriation through the gendering of affective labor allows us to link newer modes to already-existing forms as well as recognizing the agency of producers as laborers. For example, in the realm of biological labor, Catherine Waldby and Melinda Cooper argue that we must attend to the "microbiopolitics" of reproduction and the specificities of new forms of gendered labor, such as clinical[42] and regenerative[43] labor, to recognize the continuities and interchanges between the labor of clinical trial subjects and

women's reproductivity in stem cell technologies, respectively, and other forms of "subordinated and devalued labor," such as sex and domestic work and the labor of indigenous and colonized peoples.[44] They argue that understanding "bioeconomic activity"[45] as a specific form of gendered, differentiated labor makes clear the illegitimate ways in which it is appropriated, particularly because biological producers can then be understood to have property rights to biological materials originating in their bodies rather than inhabiting a role like that of land and other resources in colonial doctrines of *res nullius* and *terra nullius*.[46]

When international media began covering the small but growing number of clinics in India that were arranging gestational surrogacy by Indian women for foreigners in 2007, the transnational arrangements were framed as the outsourcing of birth or the outsourcing of wombs.[47] In addition to its sensationalizing effect as a media technique, this characterization draws attention to the continuing social, economic, and political developments taking place through the connections enabled by the legal and technical infrastructure of outsourcing. What is less apparent in the discourse of "wombs for rent" is that the same technologies of transfer and often the same commodities circulating in outsourcing channels build subjects and forms of sociality both together with and apart from the reproduction of capital, up to and including "encounters of the economic with the biological."[48] Differences between populations connected through outsourcing serve as membranes through which unequal social relations occur and across which new socialities are formed and imagined. Spontaneous social formations that arise through the technologies and conditions of production themselves can be read as temporary affiliations or investments between subjects who are accidentally connected through the irreducible heterogeneity of use-value carried in the commodity[49] or as new political forms of social life, reminders of the political importance of the fact that "we are not the subjects of or the subject formations of the capitalist world-system. Is it merely one condition of our being."[50]

Revisiting the period of the flexibilizing and transnational dispersal of production associated with globalization, when social relations enacted through labor were beginning to be conducted at a distance in lieu of those previously

materialized through migration and other forms of travel, creates an important context for analyzing relations enacted through transnational surrogacy as an emerging biological industry. In vitro fertilization (IVF) technologies involved in surrogacy do require physical interface, because infants who are born to surrogates thus far (as per current national guidelines and likely soon by law) must be met in India by their commissioning parents, but the sociality between surrogates and commissioning parents generally involves little or no contact and is created largely through participants' imaginations, which is in keeping with other technologically mediated sites of outsourced labor.

Outsourced work, comprising nodes in the production process understood to be noninnovative and therefore reproductive, and the affective work of service and humanizing required by corporations to interface with their consumers are essential to producing the continuance of biological and social lives that provide sources of accumulation for capital as well as existing in excess to it. Starting with the essential nature of the work of care and attention in the lives of laboring subjects creates a space from which to reexamine subjective accounts of work in two of the most prototypical sites of outsourcing, IT and call centers, and to examine the grounding of outsourcing in the ultimate project of transmitting vital energy out of producing sites and into sites of high consumption. The kinds of affective diminishment that necessarily accompany work for laborers in outsourced production require an explanation for how these conditions play a role in the continuation of outsourcing into the realm of human biological production as evidenced in transnational surrogacy. This recasting sheds light on how biopower works together with what can be called the expanded realm of biocapital, human biological reproductivity, and reproductive labor, as a site of the generation of value; it also marks the political importance of the formation of new subjects and socialities occurring through the very technologies of outsourcing and extraction.

Methods and Approach

As becomes apparent in the connection between the logic of British colonial labor allocation and contemporary representations of Indian laborers, the meaning attributed to laboring subjects under capitalism is arbitrary in the

sense that it cannot be explained when removed from systems of recognition and value within capitalism.[51] However, the signification of workers becomes a form of thought embodied in capital itself, so that Indian labor becomes by definition cheaper and more replaceable than other sources.[52] This conceptual violence, the understanding or reading of a certain type of human as less human or not human at all, is a type of violence that is simultaneously naturalized, systemic, economic, and logical. It is also therefore essential to examine how the use-value and meaning of bodies and lives, and the general cultural and economic impact of signification, circulate without recognition from capitalist systems. The analysis of dehumanizing logics must be accompanied by the work of reading for other logics, "private grammars,"[53] that indicate alternate ways to think about bodies and lives and their meaning outside dominant systems of coding, even as they remain limited and undervalued by market processes.

In my readings of the conditions of living for different types of Indian laborers, I argue that though these conditions reflect dominant tendencies within capitalist production and imagination, the dynamic nature of use-value means that the particular conditions of call center workers in New Delhi, or IT professionals in Bangalore, or gestational surrogates in Indian clinics, are never simply a reflection of these tendencies. The particularities of each situation show up in narratives as evidence of simultaneous and sometimes contradictory economies of imagination, desire, consumption, and production. These particularities also tell us about the nature of capitalism at this moment, as it is a dynamic system that only becomes available for analysis in particular instances. At the same time, attention to larger tendencies between these instances, occurring in India and the United States, is important in understanding macro-level processes of the exploitation of surplus value, logics, and structures between the Global North and South and the way these processes relate to the differential valuing of lives in those places. Ethnography, as refined by feminist, poststructural, and native anthropological interventions, can be a practice engaging an ethics of responsibility in relaying and producing knowledge that centers a commitment to cultural–linguistic fluency; to attempting to convey the original intentions, affects, and references of a given social interaction; and to sustaining a continuing relationship of

accountability between researchers and those affected by this knowledge.[54] To produce a reading of the material and subjective conditions of labor made available in ethnographic and aesthetic narratives is nevertheless an act of translation that produces something new, a representation, and leaves a remainder that is both productive and also a failure.[55]

The virtual and often imagined nature of social relations formed through outsourcing's exchanges requires a method that brings the ethnographic and the fictive together. These relations form through contact zones as seemingly mundane as clinics and offices and as unexpected as programming code and petri dishes, giving a central role to imagination and its investment of living labor in how the politics of these relations play out. I approach both the virtual and physical spaces in which socialities form with a "contact perspective," which, as James Clifford defines it, approaches contact zones as characterized by the coming together of histories and politics under "radically asymmetrical relations of power . . . [insisting] that all social distances and segregations are historical and political products."[56]

Analysis of subjective accounts of both real and imagined social relations provides insight into the nature of sociality and also into unexplored arenas of affective and biological production as they have developed through the era of globalization into the era of biocapital. Globalization extends "distanciated" social relations, in which social life is constituted by relationships of both presence and absence when relationships exist across distance.[57] In this way, contemporary conditions "disembed or lift out social relations from local contexts of interaction and rearrange them across extensive spans of time-space, leaving locales to be haunted by that which is absent."[58] Looking at the subjective experience of distanciation as it exists in outsourcing relationships, at times a haunting absence, at others times the expression of disjunctured connection or even the projection of an imagined future connection, requires analysis of subjective accounts of both material and imagined relationships in ethnographic and fictive narratives.

Complex histories emerge in the everyday practices and interactions captured with equal depth and significance in both ethnographic and fictive narratives. To foreground the politics of negotiation and exchange in daily life,

I examine my own and others' ethnographic narratives together with literary and cultural texts through which such lives and historical imaginaries take shape, and which they in turn shape. This argument about how new forms of sociality occur through new sites of labor parallels the argument I make to describe, and the material practices that compose, the processes of accumulation and production that occur through the minutiae of lived biological and social lives as they are transmitted in the form of vital energy.

The vitality of living labor yields both the recognizable historical archive as well as other histories that do not get represented in that archive's record. It is the specificity of labor, understood by Dipesh Chakrabarty as the channeling of vitality, or life force, that troubles a homogenous reading of the world system.[59] As repositories of the living labor of fantastic social relations, ethnographic and fictive subjective experiences related through the narratives I examine provide content and context for analysis of vital energy's production, consumption, and accumulation in each chapter of this book. Representation, whether it is understood as a technology of knowledge formation, as part of the work of imagination, or as an ideological project of power, has material effects for which we must account. If representation can impact a person's access to the means of subsistence and her quality of life, then it must be examined as a productive force. Fantasy, a structure of desire and imagination that also produces social relations, representations, and the different ways that bodies become appropriate for particular types of labor, is an organization of individual and collective imagination. Neferti Tadiar's use of "fantasy production" to describe this function both addresses the material consequences of the way one knows reality and points out its unstable structure.[60] These "fictions of the real,"[61] as Avery Gordon calls them, where the real is the most fully realized and experienced of fantasies, in Tadiar's argument represent the living labor of experiences and activities that are "unrecognized productive forces of globalization itself."[62]

By relying on a juxtapositional reading practice to analyze multiple sites of labor, this book attends to the production and circulation of subjectivities, commodities, and representations, highlighting continuities in forms of work that produce value in invisible or undervalued ways. Each chapter traces the

transit of vital energy while providing a careful reading and analysis of how subjects describe work and sociality as creating diminishment and also unintended enrichment in their lives, and how they experience connection or generate new forms of sociality through the conduits and technologies assembled to transmit their vital energy elsewhere for its accumulation. The substance within human beings of interest to capitalist accumulation, "labor power" in the writings of Karl Marx, consists of "living labor" as a form of life. Unlike a labor theory of value, the argument that the productivity of biological activities can be structurally directed toward the enhancement of other lives in a way that depletes that of the producer doesn't rely on quantifying expenditure (labor time) but rather on this subjective marking of what is exhausted. Each chapter also describes the qualities that announce the accumulation of vital energy elsewhere, posing different and occasionally contradictory elements of subjective humanisms that point to the contextualized operation of technologies of life support, on one hand, and life diminishing, on the other. These are made apprehensible through readings in each chapter of subjective expression and reflection on the ethics of proper human social relations and working conditions. This study of vital energy takes up the problems and promise of feminist theories of reproductive labor that argue for the difficulty in determining the limits of gendered labor. When vital energy is attended to as that which is produced and accumulated under biocapital, it opens up possibilities for exploring and connecting to biopolitical economies of extrahuman life of interest to women-of-color feminists, feminist science studies scholars, and others.

Framed in terms of illicit and gray economies of affective exchange, the connections made and socialities formed through communication and biological forms of labor, seemingly strange affinities, suggest that even the coerced or otherwise unfree aspects of new forms of accumulation and production demand attention to the politics not only of exploitation but also of affiliation and political connection. Referencing women-of-color feminism and queer-of-color critiques as examples, Hong and Ferguson argue that "an alternative comparative method must traffic in the unknowable and the devalued" and propose the need for "new analytics through which to apprehend coalitional

possibilities, or strange affinities."[63] The forms of life and transmission of sociality that occur in the sites examined herein both historically and geographically require a form of transnational relational analysis that draws from and expands the study of difference practiced in women-of-color feminist analytics and ethnic studies. The crossing over between histories of geopolitical spaces and histories typically understood as separate areas of study invites a relational and transnational approach that identifies not only commonalities between groups with different histories but also alternate politics of affinity and connection in the forms of sociality that emerge through the technologies that entangle differently embodied histories.

Juxtaposition as a method in this project is an intentional mismatching of sites of interest and genres of documentation or other modes of archiving, combining often seemingly unrelated sites of labor to highlight the underlying common cultural and economic systems in operation. Each chapter in this book brings together readings of ethnographic, cultural–creative, and theoretical texts. Together these texts recast the study of life as an object, and specifically the formulation of biocapital outlined previously, by reading labor, the bodies that labor, and the content of that labor as it travels between producers and consumers in the form of human vitality. This reading practice is also crucial in making visible and connecting the types of support that are necessary for life and constitute a large part of international labor markets and yet are underanalyzed or even invisible as productive work. In this way, it can consider aspects of labor and value that are not tracked in other studies of globalization or through economic studies of labor markets, accounting for invisible racialized and feminized work that circulates and accumulates as vital energy in support of some lives and not others. Bringing together the sites of IT, call centers, and commercial surrogacy provides insight about global service economies not available through the study of a single industry. As Spivak argues, "re-constellating" narratives and texts in this way "wrench[es]" them out of what reason demands are their "proper context[s]" and places them "within alien arguments," a project that is essential for a materialist analysis that aims to suspend empiricism when it imposes given subject formations.[64] The combinations arranged in this book may seem nonintuitive at

first, but they do important work in drawing attention to the otherwise unnoticed ground that makes their juxtaposition possible and productive.[65] Getting a glimpse of that ground is part of the project of understanding the system of life support as it plays out in the lives of Indian workers.

The introduction and first chapter establish the structural and historical underpinnings for the system of life support and theorize the role of vital energy. Serving as a theoretical framing for the following chapters, the first chapter asks, How, given the mapping of new arenas of bodily and biological labor in the Global South, can we conceptualize the subject who performs labors of affect and biological production outside of her utility to capitalist accumulation when it is only through the lens of capitalism and new industrial production that we can see these acts as labor to begin with? Subsequent chapters analyze call center labor, IT work, and gestational surrogacy, marking the subjective and context-specific evidence of the expenditure of vital energy as well as the social lives and relations these exchanges promote, while maintaining attention to how technologies and knowledge promoting the extraction of vital energies may be novel in some ways, while also reproducing earlier forms of extraction. Each chapter dwells on forms of support and sociality that come into existence beside and despite structures of neoliberal production, coloniality, and conditions of constraint and unfreedom tied to the racialization and gendering of labor in the global economy. The Indian workers examined in this study, ranging across a number of regional, class, gender, and caste divisions, occupy particular positions in the international division of labor as a result of the material conditions India has inherited from British imperial labor and production-chain allocation practices as well as from its postcolonial economic and political history. These workers are also figured by an economy of imagination and desire that is interlaced with their shared histories.

Chapter 1, "Limits of Labor: Affect and the Biological in Transnational Surrogacy and Service Work," looks at how affective and biological labor, such as that found in call center and surrogacy work, index new forms of exploitation and accumulation within neoliberal globalization but also rearticulate a longer historical colonial division of labor. Feminist materialist scholarship

and critiques of the racialized nature of domesticity and free labor advanced by feminists based in the Global South, black feminists, and U.S. women-of-color feminists, provide the ground to continue to scrutinize which kinds of exchange and subjectivity can even be represented by categories of labor, leading to the question of what stakes are involved in asserting that gestational surrogates and others whose productivity occurs primarily through biological and affective processes are subjects of capitalist labor power. Expanding the argument from the introduction and bringing it to bear on the ways in which surrogacy and call center work put pressure on and exceed the category of labor, this chapter argues that tracking vital energy, rather than value, as the content of what is produced and transmitted between biological and affective producers and their consumers holds on to the human vitality that Marx describes as the content of value carried by the commodity and absolute use-value of labor power to capitalist production, while also describing the content of these value-producing activities as greater than what can be described in terms of physical commodities and their value as represented through exchange.

Chapter 2, "Call Center Agents: Commodified Affect and the Biocapital of Care," looks at how the technologies and training that create the call center agent as a subject of labor and capital also produce an artificial surplus of affective commodities that can then be transmitted elsewhere through the labor of the call center worker. These technologies and this training also create conduits for communication and connection that are the conditions for new forms of sociality and resistance as they transmit the mechanisms of support and coping embedded in histories of labor. This chapter reads Arjun Raina's dramatic monologue *A Terrible Beauty Is Born* together with ethnographic accounts of call center work to think about the forms of vital energy carried by affective commodities and accumulated as biocapital. The play presents both a theory of humanism out of the experience of call center workers and an argument that dehumanizing labor conditions cannot stop forms of life that continue to insist on the humanity of workers. In fact, the very technologies that strive to evacuate the support of humanness, such as care, attention, and reinforcement of one's worth through meriting such concern, can serve to channel it back through other sources. These gray economies of affect create

new possibilities for histories of labor struggle to come together despite geography, just as they serve to transfer affective resources long distance. Reading *A Terrible Beauty Is Born* together with ethnographic narratives of call center work sites suggests that affective labor transfers the capacity of human vital energy as a creative force and invests it directly into other human beings, thereby supporting their lives.

Chapter 3, "Information Technology Professionals: Innovation and Uncertain Futures," uses original ethnography to examine how IT as an industry depends on a reterritorializing of imperial labor legacies despite the assumed globality and connectedness of high tech. The differential valuings of labor through racial and national difference merge to influence the kind of work available for high-tech workers in Bangalore, making India largely illegible as a site of innovative and globally connected products. Utilizing ethnographic research conducted in 2005 and 2006 with Indian IT professionals living in Bangalore and California's Silicon Valley, this chapter looks at how the particular experiences shared among a relatively small group of programmers point to larger tendencies in how the generation of surplus value in the United States relies on the outsourcing of conditions of temporariness and the work of reproducing prior innovation to Global South production centers. This in turn impacts the ability of people in Bangalore, even relatively elite IT professionals, to imagine their own stable futures. A reading of Hari Kunzru's novel *Transmission* alongside this ethnographic narrative illustrates the central role of imagination and fantasy in structuring the material lives and life decisions of programmers and their access to a sense of future possibility. The desire for work that is creative and that connects programmers with a community and a sense of importance in the global progress of technological knowledge raises a number of questions about what conditions are necessary for creative potential and attitudes within work and how these are distributed geopolitically. The popularity of open source in the mid-2000s suggested a possible alternative to the system of global distribution that determines who gets to create knowledge commodities and who reproduces them.

Chapter 4, "Transnational Gestational Surrogacy: Expectation and Exchange," draws from original ethnographic research conducted in 2008 at a

fertility clinic in northern India offering surrogacy services for transnational clients. It examines how assisted reproductive technologies expand options for childless couples with financial resources to pursue low-cost surrogacy and for laboring-class Indian women to sell the use of their bodies to gestate these fetuses/children for higher wages than they could otherwise earn. At the same time, IVF technologies expand the increasing number of commodity forms of human life and human vital energy. I argue that in the context of the current lack of legal discourse around these technologies in India, assisted reproductive technologies allow the Indian surrogate's womb and its biological functions to be abstracted from the rest of her life and made excessive to her nonreproductive existence. Even though women describe entering surrogacy agreements because of material constraints in their lives, current and future surrogates also describe relationships they create with one another, and sometimes with commissioning parents, outside their contracted relationship that create political possibility and advance alternative ethical models for the future of commercial transnational surrogacy. This chapter further develops the notions of affective labor and biocapital to explain how the recipients of a surrogate mother's labor and the child she bears become a site of capital accumulation and how outsourcing has extended into human biology as part of biocapitalism.