

**The Politics of Life in a Post-Carbon World
as Portrayed in Paolo Bacigalupi's *The Windup Girl***

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Abstract

Paolo Bacigalupi's *The Windup Girl* presents a dystopia in which food politics, engineered by agribiotechnology corporations, play out power dynamics at the global level amidst environmental crises. The novel is set in climate-ravaged Bangkok where the state struggles to protect its independence over food and corporate companies striving to negate it. This paper examines how Bacigalupi's dystopia illustrates modern power through the Foucauldian frameworks of biopower and governmentality. In the novel, biopower is exerted by multi-national agribiotechnology corporations called the calorie companies. On the other hand, the state exerts its control over the population through governmentality after having given up overt political violence. Through these intertwined structures, the novel critiques contemporary anxieties surrounding biotechnology, ecological exploitation, corporate sovereignty, and the future politics of life itself.

Keywords : Biopower, Governmentality, Climate Dystopia, Corporate Sovereignty and Politics of Life.

Introduction

Paolo Bacigalupi's *The Windup Girl* (2009) is a dystopian fiction that imagines a future that is ravaged by climate change. It portrays a world where global power structures have been modified because of ecological collapse and food scarcity.

The story takes place in Bangkok during the post-carbon era and the political and the economic situation is heavily controlled by multinational agribiotechnology corporations that are called the 'calorie companies.' They have unprecedented control over food production and genetic resources which allows them to dictate what/where/how much food to be produced (Hageman 283). Food is not merely a commodity; it becomes the primary apparatus through which power is exercised in the world presented in the novel. Bacigalupi's narrative presents a complex dynamics among the state, the corporates, and the people.

Biopower and Governmentality

In this context, this paper aims to understand the dynamics of power as portrayed in *The Windup Girl*. The analysis will be founded on two Foucauldian concepts viz. biopower and governmentality that form the central theoretical premises to modern analysis of power structures (Gerrard). Biopower, the first concept proposed by Foucault, refers to the capacity of institutions to regulate bodies, health, reproduction, and life processes (Pylypa 21). Governmentality, the second concept proposed by Foucault, denotes the techniques, rationalities, and bureaucratic practices through which populations are administered (Pylypa 21). The application of these two theoretical concepts in the analysis of the novel facilitates the understanding of how the governance of life becomes a contested terrain in a dystopian setup.

The central elements of the narrative that are relevant to the present study are: domination over seeds and disease by the calorie companies, the bureaucratic management of environmental threats, and the engineered body of the windup girl. The novel, by integrating these major narrative elements, constructs a dystopia in which governance is fragmented and power is distributed across corporates in overlapping layers. Survival becomes the pseudo humane objective of the power centres and it cloaks the true biopolitical order established by the corporates and the governments. In realising this objective, the mode of governance is executed by way of regulation of food, body, and the environment. The novel's portrayal thus becomes a critical reflection on the biopolitical and governmental techniques that increasingly shape contemporary debates on climate change, biotechnology, and global capitalism. The post-monarchy era of modern power dynamics is more characterised by a shift in power towards manipulating the population by nurturing, managing, and regulating human life, or the biology of it. Foucault terms this as biopower and exposes how it regulates the population by determining birth, death, health, hygiene, reproduction,

and overall life processes. While traditional power dynamics focused on violence and coercion, modern power centres focus on normalization, statistics, public health, and population management. "Discipline constituted individual bodies; biopolitics constituted the species body, the population" (Macmillan 39). Entire population are objectified and are turned into the target of regulatory systems.

Foucault has introduced the second concept of governmentality to complement the concept of biopower. This concept expands the concept of governance. Governmentality refers not simply to state coercion, but to the 'conduct of conduct'-a broad array of institutions, bureaucracies, rationalities, and practices that guide, shape, and regulate the behaviours of individuals and populations (Bevir 423). In Foucault's own words (delivered in his lectures), the modern state emphasizes the security of populations, using knowledge, statistics, economic and administrative mechanisms rather than overt sovereign violence (Romčević 287).

Both biopower and governmentality are focused towards exerting power dynamics through the manipulation of the population. While biopower is the tool to manipulate population, governmentality becomes the means to implement the tool. As one scholar puts it, governmentality provides "a way to rethink power beyond coercion or repression, focusing on the regulation and management of populations through institutions, norms, and knowledge" (McKinlay et.al. 3). By deploying these frameworks, one can analyse modern (and speculative-future) societies in terms not just of legal sovereignty or economic domination, but in terms of how life itself becomes a site of governance, regulation, and control.

The so-called calorie companies i.e. corporate agribiotech firms that feature in the novel namely, AgriGen and PurCal, not only commodify food but they use it as a weapon to regulate human life. By means of genetically modified seeds, engineered crops, and even bioweapons/plagues, these companies exert biopower at the global level. This is reflected in the following lines:

Pollen wafts down the peninsula in steady surges, bearing AgriGen and PurCal's latest genetic rewrites, while cheshires molt through the garbage of the sois and jingjok2 lizards vandalize the eggs of nightjars and peafowl. Ivory beetles bore through the forests of Khao Yai even as cibiscosis sugars, blister rust, and fa' gan

fringe bore through the vegetables and huddled humanity of Krung Thep (Bacigalupi 66)

These corporations are able to, and in fact, they exert power over bodies, species, reproduction, and populations across national boundaries. They govern through biology, food supply, genetic control, and the threat (or enactment) of biological crisis.

In Bacigalupi's dystopia, 'gene-hacked' seeds and sterile crops become the norm. Corporate greed to exert biopower result in destroying native biodiversity of any region on earth. It also results in creating monopolised food production as the calorie companies do everything in their power to safeguard and promote their patented crops. "'The calorie companies do it,' Lucy points out. 'They ship seeds and food wherever they want. They're global'" (Bacigalupi 122). The novel portrays the calorie companies' blatant terrorism on the biology of nations across the globe: they unleash bioengineered plagues to decimate native non-bioengineered crops. "AgriGen and PurCal and the rest were shipping their plague-resistant seeds and demanding exorbitant profits, and patriotic generippers were already working to crack the code of the calorie companies' products, fighting to keep the Kingdom fed as Burma and the Vietnamese and the Khmers all fell" (Bacigalupi 156). As one scholar notes, the book explores how "new biotechnology becomes a means for corporations to regulate not only food production, but also populations' survival, health, and reproduction" (Pearly & Anitha 7620). The novel shows how huge corporates transform a basic human need into a mechanism of control. Hunger, famine, sustenance becomes inseparable from political authority. By controlling who eats what, the population is governed by biopower.

The novel, *The Windup Girl*, stands a warning for a possible bioterrorism, genetic warfare, and corporate sovereignty in the future. Bacigalupi is candid in his portrayal of the calorie companies and their exertion of biopower to such extent that it should be termed as bioterrorism. They exercise terrorism by manufacturing crises that only they can solve through their own genetically-engineered strains. This manufactured dependency is a chilling metaphor for biopolitical sovereignty: through death, disease, and scarcity they assert their dominance, making life contingent on their goods.

As Pearly and Anitha note in their critical analysis, the novel shows how “bioengineered futures and climate despair ... make environment, body, and identity the object of regulation, control, and commodification” (7621). These calorie companies go beyond business and become centres of political power and displaces the traditional political power hierarchy. This aligns with a Foucauldian reading: power has moved from the right to kill (sovereign violence) to the power to manage life (biopower), yet now wielded by corporate, transnational actors rather than states alone (Saha 3).

The fictionalised future projected in the novel is a reflection of contemporary concerns. Issues like genetic monopolies, corporate control of food supply, patenting of seeds, and the political economy of agriculture are contemporary in context and these are addressed in the novel. Therefore, the power structures depicted in *The Windup Girl* do not emerge in vacuum but they reflect real-life anxieties. Critic A. Hageman remarks that Bacigalupi “remaps global capitalist geopolitics” by showing how transnational corporations challenge the viability - even the sovereignty-of nation-states when it comes to food and life (283). The calorie companies’ dominion over food, genes, and life becomes a literary vehicle to critique contemporary neoliberal capitalism, globalization, and biotechnology. The novel becomes not merely speculative imagination but a cautionary allegory: a demonstration of how unchecked corporate biopower could someday redefine who lives, who reproduces, and who governs life.

The novel, *The Windup Girl*, besides presenting the corporate power structures in the form of the calorie companies, also presents the governmentality in the form of the Thai government which is portrayed as fragile yet vigilant. Elaborate bureaucratic structures, security regimes, and environmental regulation become the systems by which the state functions. Bangkok, where the story takes place, is more a system of governmentality than a democratic establishment. ‘Conduct of conduct,’ exercised through administrative techniques, regulatory routines, and the management of populations. The Thai government employs overt violence, surveillance, reporting protocols, quotas, and risk management in order to govern the state (Shamir 5).

In the novel, the environment ministry, under Jaidee and later Kanya, functions as a security point that prevents the entry of foreign genehacked seeds, pathogens, and items. It does it by inspections, checkpoints, and constant monitoring of cargo. The following reflects this: "A single genehack weevil found in an outlying district meant a response time counted in hours, white shirts on a kink-spring train rushing across the countryside to the epicenter" (Bacigalupi 156). Foucault calls it the 'security dispositif,' a mechanism aimed at protecting the population by regulating external flows that could generate biological catastrophe (*Security, Territory, Population* 73). This system is indicative of bureaucratic rationality. The control and governance happens not overtly but through subversive, non-threatening methods such as anticipating threats, calculating risks, and acting through administrative control. Scholars have noted that Bacigalupi's depiction of ministry politics "renders the state as a site of competing governmental rationalities struggling to manage environmental precarity" (Hageman 289).

In the novel, as a counterpoint to the environment ministry, the trade ministry embraces a neoliberal rationality oriented toward profit, international alliances, and reopening Thailand to global markets. It provides the space for competing logic in government policies. While the former focuses on profit and gain, the latter focuses on security and survival. Foucault describes such tensions as inherent to modern governmentality, where multiple rationalities coexist and clash within the same state structure (98).

The Thai government creates a semblance of order and sovereignty through installing bureaucratic procedures. These include permits, quotas, stamps, and field reports. Scholars call this "administrative governmentality," where legitimacy arises not from representation but from procedural enforcement and technocratic expertise (Curtis 87). The enforcement squads, the white shirts, and environmental officers, by following routine procedures, establish legitimacy and thereby governance. They do this by auditing warehouses, examining seed stocks, detaining smugglers, and enforcing quarantine laws. The population is controlled by routine practices, supervision, and anticipation of penalty and not by ideology.

The presence of 'yellow card Chinese' and 'refugees', in the world of the novel, shows how the state categorizes populations into manageable segments. This

facilitates the administration of differing levels of access, rights, and mobility. This is reflective of biopolitical classification consistent with Foucault's claim that modern governance involves the "division of populations into hierarchies of risk" (Cisney 54). In Bacigalupi's Bangkok, this helps in maintaining law and order in a world that is increasingly becoming economically unstable and environmentally endangered.

The novel also presents how there is fragmented sovereignty and the state is highly limited in its powers. The novel shows how the government is weak and unstable in spite of imposing all stringent measures. Coordinated governance is nullified by the conflict among different ministries. Besides this, the calorie companies also threaten the country from outside by way of destroying the country's agricultural independence. As Hageman argues, Bacigalupi depicts "a post-sovereign world where nation-states remain but are weakened by global capitalist forces and internal administrative conflict" (292). The state of Thailand is not founded on any political vision; it depends on the ministries which are often at odds with one another. The novel also shows how any form of governmentality and control disappears when ecological disaster overwhelms the population. The flooding of Bangkok, the constant threat of plague, and the instability of food supplies render bureaucratic rationality insufficient.

Another aspect of the dystopia presented in the novel is the biopolitics of the engineered body which is portrayed through Emiko's life experiences. Among the most striking embodiments of biopower in *The Windup Girl* is Emiko, a genetically engineered 'New Person' designed for servitude, obedience, and sexual exploitation. The following lines reflect this:

'What are you?'

'New People.'

'What is your honor?'

'It is my honor to serve.' (Bacigalupi 197)

Emiko's body exemplifies what Foucault describes as the modern shift from disciplining individual bodies to manipulating the biological processes of life itself. Her creation, purpose, and suffering all reveal a regime in which life is engineered at the molecular level, making her not merely a victim of exploitation but a literal product of biopolitical power.

Emiko has been biologically engineered for utility. She is the outcome of corporate engineering for economic profits where life is reduced to the level of commodity. Bioengineering has developed Emiko as a product to meet the demands of the market: a slave to satisfy human urges - her inability to sweat, her heightened sexual responsiveness, and her genetically encoded obedience are the outcome of design-to-meet-demand aspect of the market. The following line reflects this: “[The actions] ... encouraging the reactions that have been designed into her and which she cannot control, no matter how much her soul fights against it” (Bacigalupi 325). As one critic notes, “Emiko’s form demonstrates how biotechnology collapses boundaries between body, commodity, and machine,” situating her as a biopolitical artifact rather than a natural person (Straetz 5).

Emiko has been engineered in such a way that she has to totally depend on other human beings with resources such as her masters for her survival. This makes her biologically a slave, the brutal consequence of capitalist science. Emiko is intolerant to tropical heat and this aspect confines her to controlled environments and restrict her movements, and making her a prisoner to her environment. This echoes Foucault’s notion that biopower operates through “the calculated management of life,” establishing conditions in which subjects are biologically dependent on structures of control (*History of Sexuality* 140).

Emiko’s engineering also reflects governmentality. She is programmed at the genetic level such that the state is able to control her life form. This programmed docility reflects what Foucault terms “the internal coercion of the governed subject,” where power works through self-discipline and ingrained habits (Curtis 514). Even when she is degraded and abused in the club, Emiko chastises herself for resisting commands. Her body becomes a site where state-like disciplinary technologies and corporate governance converge. As Cynthia Chung argues, engineered beings in biopolitical fiction are often ‘governed from within,’ producing a form of subjectivity that aligns with the interests of power structures without overt coercion (3).

Bacigalupi gives in to his creator’s license in allowing Emiko to deviate from the established control. However, he does it with the realm of logic, insisting that no system is fool proof and no system can be hundred percent efficient in curbing what is natural. Emiko breaks the control that was laid over her by genetic programming,

and exemplifies the fact that individual will power is stronger than any collective control. By killing her abusers, Emiko becomes the representative of rebellion against biopower and governmentality. In rejecting her enforced docility, Emiko enacts what Foucault calls a 'counter-conduct,' a refusal of the forms of life imposed upon her by systems of governmentality (*Security, Territory, Population* 201). Critics have observed that Emiko's transformation marks a shift from object to agent: "she destabilizes the hierarchies that position New People as disposable tools, revealing the instability of biopolitical authority" (Hageman 297).

Conclusion

Bacigalupi's novel *The Windup Girl* presents a dystopia in which life becomes the focal point of power politics. The corporate world enters the arena and competes with the state for power dominance. While the corporate entities use biotechnology to exert biopower, the state employs governmentality instead of overt political violence to manipulate its population. As a speculative fiction, *The Windup Girl* presents a dystopia that reflects on contemporary political views on ecological exploitation. In this regard, the novel becomes a relevant, and a cautionary extrapolation of logical concerns raised by scholars, who study the adverse effects of bioengineering. The present study reveals that the application of Foucauldian concepts viz. biopower and governmentality in analysing *The Windup Girl* provides a vivid picture of how power centres of the future are likely to employ biotechnology and genetic engineering as tools to establish and maintain dominance amidst environmental crises.

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