

# Gender, Adaptation, and Emergent and Imposed Orders

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## INTRODUCTION

Gender has been and continues to be a culturally, politically, and economically relevant characteristic for obvious reasons. The relationship between sex, gender as a signal, and reproduction is the starting point, but given the interaction of sex and reproduction on the one hand and gender as a signal on the other, all operating within economic, political, and social orders, it's no surprise that in many human contexts, gender has nothing to do with reproduction at all and instead serves as a malleable and flexible marker of identity with social, political, and economic implications. Gender has taken on a meaning quite apart from its biological origins and now plays a complex and variable role in social life, markets, political and legal discourse, and cultural norms and values.

Because gender is both biologically rich and socially mediated and because gender—as an emergent order—overlaps with other emergent orders such as language, culture, social norms and mores, and (some) laws, as well as created and imposed orders like (some) laws and regulations, social scientists and theorists need to connect these two areas of study.

## DEEP HISTORY OF SEX AND GENDER

My own interest in editing a special issue on gender and emergent order finds its deep origins in two of my favorite books about spontaneous order and gender, Sarah Blaffer Hrdy's books *The Woman That Never Evolved* and *Mother Nature: Mothers, Infants and Natural Selection* (Hrdy, 1989 and 1999). In both these books, the emergent order of evolution collides sharply with other emergent orders, including politics, economics, language, and even the scientific method. As Hrdy notes, her own interest in primatology came in part from the erasure of female primate agency by male primatologists who assumed—without evidence—a docile female vessel ever-open to the activity of aggressive agented males. What Hrdy and other self-described “feminist primatologists” of this era found instead was an incredible variety of adaptations and counter-adaptations that females have developed to counter male aggression, exert agency over not just reproductive but also social and political matters, while expressing and pursuing individual preferences (Hrdy, 1981 and 1999).

Far from confirming a biological essentialism, the message from the study of gender in primates is just how flexible

gender roles can be, particularly when they interact with other complex systems like social living, environmental pressures, and economic and legal systems.

One of Hrdy's most forceful chapters in *Mother Nature* is her uncompromising look at the evolutionary logic of infanticide. From a simplistic evolutionary perspective, one should never kill one's own offspring (and mothers in particular should never do so). But as Hrdy points out, no animal ever makes reproductive decisions in isolation. If one's child threatens one's own survival or if investing in this particular child threatens future reproduction, many parents—often mothers, given how these things go in evolutionary history—may make seemingly irrational choices that are actually painfully rational given the evolutionary logic at play. Hrdy's analysis of maternal abandonment and infanticide in the historical record suggests that far from being outside the norm, abandonment and infanticide are common strategies for human mothers facing economic or resource scarcity. Crucially, Hrdy notes that (nearly) unconditional maternal devotion is, in fact, found in most other primates. At the very least, infanticide or abandonment by mothers is very rare in other primate species. Conditional maternal commitment seems to be unique to humans. She traces this shift to the greater fat stores allowed by agriculture that decreased birth spacing.

For the first time in evolutionary history, women had to make hard choices—frequently—about whether to keep a child or not and how to allocate the scarce maternal resources of time, energy, lactation, food and shelter, among large numbers of offspring. This shift alone—from unconditional love to conditional love that is itself conditioned on social, environmental, and economic conditions—demonstrates that human gender roles are in fact quite flexible, that gender as both a set of norms and expressions is heavily influenced by external forces, and that we have probably not reached the end of gendered variation either in terms of how humans choose to play out gender as a “performance” (to use Judith Butler's phrase) but also how human communities react to and accept (or not) different kinds of gendered variation.

Sometimes the tradeoffs are explicit, as Hrdy notes (1999, 351) about the proliferation of wet nurses in the 19th century—a practice that greatly increased rates of infant mortality. She notes the interaction between emergent orders and their adaptive outcomes explicitly: “women's maternal responses were heavily influenced by an amalgam of old and new rules. Old mammalian decision rules for dealing with tradeoffs between subsistence and reproduction were reinforced by a conscious pragmatism on the part of mothers. For example, if she continued to care for a particular infant, would she lose her job? If she lost her job, how would her family survive?”

Not only are these decisions a complex interactive web of instinct, adaptation, and conscious choice, but they also change over the course of individual life-spans. As just one example, Hrdy notes that infanticide among mothers is much more common among young mothers than among older mothers. Two forces are at play: relative inexperience plays some role, but the other contributing factor, Hrdy posits, is that the shorter time horizon of remaining reproductive potential in older mothers makes the tradeoffs of infanticide less positive. A younger female might jettison a disabled infant that an older mother might choose to nurture. This is not a particularly attractive and certainly not a normative view of maternal love, Hrdy argues, but it is an objective one and one well supported by the empirical research on how human mothers across the globe weigh their reproductive choices in a complex and gendered world.

Hrdy's evolutionary logic is very much an economic logic, dictated by tradeoffs, opportunity costs, and affected profoundly by exogenous variables like social status and property rights. As such, she explodes the myth of the non-strategic and unconditionally loving female just as she and earlier feminists and social scientists exploded the myth of the passive and chaste female awaiting male sexual, political, and economic action (starting with Antoinette Brown Blackwell's “polite critique” of Darwin, which Hrdy quotes at length) (1999, p. 12). Females, like males, adapt to their environments, and their environments are made up of an infinitely complex social and economic landscape that creates a variety of tradeoffs in terms of survival, reproduction, social status, and belonging. Males too face a different set of tradeoffs and their choices are as difficult as those faced by females. It is no secret in the biological or sociological literature that inhabiting a male body in most species resigns you to a shorter lifespan and a greatly increased likelihood of violent death (Möller-Leimkühler 2003)).

In humans in particular, the situation is complicated because the emergent order founded on evolutionary logic butts inexorably against the emergent order of economic and social institutions, as well as the imposed orders that human political behavior create. Gender in humans is, therefore, many things. It is an adaptation (Hrdy), a signal (Malamet and Novak and Goodman), a coordination mechanism, a performance (Butler and Kuznicki), an evolving collection of moral and social norms (Snow), a set of normative and legal expectations (Skwire and Lemke), and a discovery process deeply linked to individual identity (Novak and Malamet; Kuznicki and Pakaluk).

## GENDERED CHOICES IN A MODERN WORLD

In my own work, I've explored the way families and reproductive choices impact the broader emergent order (Hall 2014) as well as how women's decisions about maternity care and birth are impacted by the economic and regulatory environment. Women's preferences about birth, for example, are often swamped by exogenous and often extraneous factors such as liability fear, cronyist protectionist regulations, and a medicalized medical culture (Hall 2019).

Whether discussing family life or women's reproductive choices, the broader dialogue is often characterized by a false binary, fueled by ideology, where one's commitments to a particular outcome color the way we think about gendered phenomena. These ideological binaries create policy binaries such as "pro-life" or "pro-choice" or "feminist" or "TERF" that ignore the complex and emergent reality of how gender and gendered choices and constraints exist alongside and interact with other social and political orders.

What is more interesting than partisan fights—and what this volume hopes to contribute to—is investigating the actual ways in which gender as a spontaneous order of its own interacts with, influences, and is influenced in turn by emergent and imposed orders of all kinds. Feminists, gender theorists, and non-feminist theorists have long described this process. Susan B. Anthony, for example, bemoaned the emergent effects of industrialization on traditional women's work, hollowing out women's economic importance in the home and leaving women forced to find work in the unstable and often dangerous world of the factory or, if they were lucky enough, to take refuge in a hollow ornamental role devoid of intellectual agency (Freedman 2007, pp. 88-90). Simone de Beauvoir notes that women's identities shift based on "residence, housework, economic condition, and social standing" as well as class and race (*ibid.*, p. 257), though she speaks somewhat more positively than Anthony of the economic power women gained from industrialization (*ibid.*, p. 259).

More radically, lesbian feminists like Monique Wittig discuss the radical revolution of institutions themselves as the only way to escape male domination (*ibid.*, p. 363). On Wittig's view, the "categories 'man' and 'woman,' [...]are political categories and not natural givens" (*ibid.*, p. 363). She makes the relationship between feminism and other emergent and imposed orders explicit: "For what makes a woman is a specific social relation to a man, a relation that we have previously called servitude, a relation which implies personal and physical obligation as well as economic obligation" (*ibid.*, p. 366). For Wittig, the only way to untangle the various orders is by a radical escape or exit from heterosexual reproduction and the social, economic, and political orders that emerge (and are in turn imposed) on it.

One way of thinking about the evolution of feminist thought broadly is that first wave feminists like Anthony focused on the imposed orders of legal and political inequality, including suffrage, and emphasized "voice" as a way of instituting social and political change. Second wave feminists saw that even once the imposed barriers fell, complex emergent orders like language, social norms, and economic roles remained firmly in place. While many second wave feminists continued to advocate using voice as a way to institute change through the democratic process, radical feminists like Wittig saw exit as the only way to thoroughly disentangle women from the web of emergent orders that heterosexual reproduction—and the persistent evolutionary logic it carries with it—creates. These new created orders, sometimes socialist feminist utopias, other times capitalist meritocracies like those found in Ayn Rand, have had limited success in the real world, for reasons that will become clear.

While exit becomes the explicit option for radical feminists struggling against the power of emergent and imposed gender orders in the 20th century, the idea itself is probably as old as civilization. The utopian hope of a liberated matriarchy that escapes masculine-controlled emergent and imposed orders goes back to Greek myths about the Amazons and is reanimated by authors like Charlotte Perkins Gilman in *Herland* (1915). As Hrdy notes in her evolutionary-historical analysis, these radical matriarchal myths are just that—myths—in part because of the evolutionary incentives for male control over female reproduction, incentives that women themselves both resisted and adapted to, often simultaneously (1999, p. 14). But it is interesting that women—for thousands of years—have played with the idea of exit as one way to build a new set of emergent and imposed orders based on very different gender roles.

Part of why feminism itself is so diverse and why so many women fail to identify as feminists in the first place is that gender is many things at the same time that is also a process. It is a process both across a single human lifespan, a process across cultural and social spaces, and a process across generations and evolutionary time. How gender manifests in hunter gatherer populations is understandably quite different from how it manifests in modern 21st century industrialized societies, but there are nevertheless through-lines and patterns that we recognize even across all this time and space.

Moreover, while feminists often focus on the effects of social, economic, and political orders on women's lived experiences, gender has profound political and economic import, even outside of the nagging questions about individual identity that characterize the culture wars today. Demographers, for example, note the way reproductive strategies have shifted over the years, toward a reduction in birth rate, with in some cases serious political, economic and security consequences (Hudson and den Boer 2004). Sociologists note the way gender interacts with criminal behavior and evolutionary theorists note how institutional structures can ramp up or tone down gendered competition among males (for example). Economists like Steve Horwitz (Horwitz 2015) have noted the way markets influence family formation and how family life in turn influences markets via education and norm-creation. Finally, critical legal thinkers like Crenshaw note the way multiple emergent orders overlap to create intersectional patterns of vulnerability and harm, as when rape laws protect white women and make both black men and women more vulnerable to violence at the same time (Crenshaw 1989).

While conversations in all these arenas continue about the proper normative relationship of sex and gender to the broader political and social orders, what cannot be disputed is that sex and gender have profound impacts on other social emergent orders and are themselves impacted by economic, social, political and legal change. In this sense, the study of gender has much more in common with the study of emergent orders and complex systems than it does with the study of a single social or political phenomenon. And yet, for the most part, very few scholars interested in emergent orders have looked deeply at the study of gender and very few gender studies scholars study the science and theory of emergent orders. This seems to me to be a serious mistake, but one we hope to begin to rectify with this special issue.

## GENDER AND EMERGENT ORDERS

While there is far too much complexity for any special issue to do real justice to this topic, what I hope we do here is provide a starting point for analysis and directions for future research. I also hope that this collection of essays sparks interest among scholars who may not have thought about gender as a particularly fruitful topic of study in the emergent order tradition, encouraging them to see the many ways in which gender relates to standard concerns in the emergent order tradition, including law, property, social norms, discovery, coordination, and entrepreneurship.

Ultimately, many of the same mechanisms of selection, replication, and adaptation are in play in all adaptive emergent orders, meaning that we will find similar internal logic across evolutionary economic, political, legal, and social orders. But of course humans love to complicate things, and the overlapping nature of these emergent orders—combined with imposed and created orders at every level that add in their

own decision and adaptation rules—mean that we are often faced with a system too “wicked” to predict or control, though we may be able to begin to analyze and understand.

All of the papers in this issue involve explorations of the adaptive logic of emergent orders. Gendered individuals adapt to their environments and their environments are made up of an infinitely complex social and economic landscape that creates a variety of tradeoffs in terms of survival, reproduction, social status, and belonging.

To start, Akiva Malamet and Mikayla Novak’s article “Gender as a Discovery Process” demonstrates the overlooked power of markets to facilitate “gender entrepreneurship,” by which markets facilitate gender discovery both at the individual level but also at the societal level, as gender entrepreneurs work to identify gendered needs and provide products and services that fulfill those needs. Whether markets allow easier signaling among vulnerable communities like the “cloning” style of gay men or safe spaces for gender variation or health products for an array of gender presentations, the authors argue markets are a crucial liberatory force in part via the process of gender discovery.

Goodman’s paper pairs well with Malamet and Novak’s discussion, looking not only at markets as a discovery process, but also at the interaction between self-interested market profit motives and broader social benefits. Goodman argues that two gendered social movements—the LGBTQ movement and the #metoo movement—were facilitated and empowered by market actors who had no personal stake in the liberation fight, but whose entrepreneurial profit-seeking activities provided positive externalities for gender minorities and women seeking to expose and hold accountable legal and extralegal abuses.

In the second part of the issue, we move to concrete examples from historical and specific locations to see how these adaptive mechanisms work in practice. Skwire and Lemke’s paper deftly describes the conflicts that occur when the rules of an older social order butt up against the new. Using literature as a powerful economic tool for analysis, they point not only to the importance of property rights for women, an emergent right with deep social, economic, and evolutionary implications, but also to the confusion and conflict that occurs when disparate systems of expectations collide. In their analysis of the novel *The Shuttle*, Skwire and Lemke highlight the power of globalization for undermining and changing expectations about women’s roles and their interaction with the economic order in particular. In their discussion of the *Eustace Diamonds*, Skwire and Lemke point to how legal access and legal standing was dependent on a complex interplay of gender and social status. They note that “[c]omplex legal practices that establish different rights for different combinations of identity” create confusion, chaos, and conflict, undermining the liberal ideal of rule of law. Both novels emphasize women’s artificially created economic precarity and dependence on men, which leave them and their children without legal or political recourse in the event of spousal death, abuse or abandonment.

Of course, this interplay of emergent orders does not affect only women. There is growing interest in understanding the way men and masculinity broadly interact with various other emergent orders. And of course it is not just biological sex that interacts in this way. Sexual orientation and gender identity now interact with the biological realities of reproduction at the same time as they interact with rapidly changing economic, social, and political orders, leading to an explosion in variation and conversations and institutional approaches to thinking about gender. Snow’s piece is helpful here, analyzing the way a small all-male liberal arts college has used its very vague “gentleman’s rule” as a guiding principle for action and accountability. Snow uses Adam Smith’s conception of sympathy and the impartial spectator as a lens by which to understand the way a simple and extremely tacit rule can nevertheless create mutual understandings and expectations that male students use to hold themselves and each other accountable. Snow’s discussion of the tension between the “gentleman’s rule” and concerns about “toxic masculinity” on an all-male campus suggests that, at least in this informal and highly intimate environment, internal constraints on behavior and the accountability of intimate associates may be more effective than imposed orders like the complicated student conduct bureaucracies found at other institutions.

The two pieces that close out our special issue focus on the highly idiosyncratic and subjective ways that individuals interpret, discover, and interact with their own gender identities. Catherine Pakaluk’s ar-

ticle stems from her qualitative research on women with upper-tail reproduction, or those with five or more children. Pakaluk's article provides important insight into an often caricatured segment of the population, sometimes seen by feminists as mere tools of the patriarchy. Pakaluk's subjects explode this myth of these women as passive reproductive subjects, with the women in her sample interpreting their reproductive choices as part of a dynamic and emergent order that plays out as part of their relationship with their own identity and, often, with God. Reproduction is in this sense a kind of covenant for these women—a dynamic relationship between themselves, God, and their partner and children—that changes and adapts over time to create a unique identity. A particularly interesting part of Pakaluk's argument relates back to Malamet and Novak's work. In Pakaluk's piece, women with many children describe how this process of childbearing and rearing and leaving reproductive choices to a kind of tacit decision-making process guided by prayer and an openness to bringing new life into the world in turn shaped and forged their own identities. In this sense, reproduction itself is a kind of identity discovery process, where men and women alike discover new facets of their gendered and non-gendered selves and how the two interact.

The issue closes with Jason Kuznicki's piece, which asks us to think more seriously about the future of gender and the interaction between gender identity and new technologies, in part to interrogate what gender itself is in the first place. Kuznicki rejects gender essentialism, arguing instead that what we think of as gender is in fact a contingent cluster of different ideas and understandings. There exists no single gender essence, and as such, we must learn to be much more comfortable with gender flexibility and gender change, since it's inevitable given how humans create and re-create meaning via gendered performances, identities and characteristics.

While Pakaluk's and Kuznicki's pieces seem—at first glance—quite different, both deal with the way in which identity itself is an emergent order of a particular kind, one that interacts with other emergent orders like gender, social norms, religious beliefs, and new technological developments. Identity too, as both pieces suggest, changes across the life cycle itself. How people think of themselves as gendered agents differs across the human life cycle and this itself is conditioned on social, cultural, economic, and technological changes. Both Kuznicki and Pakaluk's articles indicate that the interaction between gendered identities and the other emergent orders at play participate in a constant and complex feedback loop. The decisions we make in our private lives about the kind of gender identity we practice and the reproductive decisions we make impact the broader society. Not only in terms of birthrates, but also in the kinds of human beings that emerge from the constant and interactive and iterative process by which people adjust their own expectations and behaviors to the expectations and behaviors of others.

Technology has both sped up and complicated these processes, with the growing ability of gender minorities (whether women with upper-tail reproductive patterns in Pakaluk's case or whether gender minorities and entrepreneurs in Kuznicki's case) to connect with each other, share their experiences, and create a digital community that affirms their gendered experiences. Technology has also, as Kuznicki points out, changed the relationship between biology and gender, allowing people to have more or fewer children than would have previously been possible, allowing people to change their bodies to better fit their own vision of their gendered selves, and eventually perhaps, as Kuznicki notes, eradicate the concept of gender as anything other than a collection of traits one can pick or choose that can be as permanent or as transitory as one might desire.

In this sense, humans may be able to eventually undermine the evolutionary logic of resource-intensive female pregnancy via surrogacy, uterine implants, or eventually artificial uteruses, in a similar way that formula undermined the resource-intensive logic of female lactation. If widespread, these innovations would shift the logic of male and female interactions in profound ways, creating new and unpredictable orders that we can only begin to guess at.

The impacts of the emergent order of innovation on gender link back to Goodman's and Novak/Malamet's papers, as the process of market dynamism constantly creates and destroys and creates again safe places for people to play with gender identity, to find people who share the same values and preferences, and to advocate for liberation to pursue their gender identities. Market innovation allows us to take

seriously the concept of gendered identity as a discovery process, one by which people's concrete and theoretical commitments and preferences interact with the broader emergent orders in which we all participate. As all these pieces demonstrate, this dynamism affects not only gender identity, but reproductive choices (Pakaluk), gender expression (Malamet and Novak and Kuznicki), gendered understandings of moral and social behavior (Snow) and the gendered implications of law and property rights (Skwire and Lemke).

In all these pieces, gender interacts with overlapping environments in rich and unpredictable ways. It is both an emergent order of its own but also the product of emergent orders and a reaction to imposed orders. Gender is part of the process by which individuals and communities adapt themselves to geographical, social, political, and legal environments. Gender is part of how people demonstrate their identity and place within a specific community but also a way in which individuals express their own unique understanding and identity as gendered individuals. It also, of course, has biological roots, but as Hrdy's work and Kuznicki's article in this issue demonstrate, that biology is itself part of a dynamic and shifting emergent order characterized by eons of mutation, adaptation, individual choice, and new technologies.

A through-line in all these pieces is the way gender interacts with individual agency, operating sometimes as a constraint and other times as a preference and other times as a form of liberation. Sometimes that individual agency eschews the norm and other times it finds a home in traditionally gendered activities. But in all cases, gender is complex, emergent, and unpredictable while still being clearly patterned.

## CONCLUSION

It is these many complexities and seeming paradoxes that make gender such a fruitful area of study for philosophers, social scientists, biologists, and others. Part of my goal with this special issue is to move the discourse around gender out of the non-productive often-ideological binary between essentialism and social construct and into the much muddier world of emergent orders and complex systems. Each of the papers chosen for this volume does this in original and different ways. They all, importantly, eschew the easy ideological alignments that we often find in discussions of gender (for example, the common insistence on feminism as anti-capitalist). Instead, each of these papers takes a nuanced approach to understanding how gender interacts with, influences, and is influenced in turn by the range of overlapping emergent orders that make up human society, from language and markets to social norms and law.

Moreover, as multiple papers brought forth, emergent and imposed orders interact with each other. People seeking to flee oppressive imposed orders based on gender may in turn generate their own emergent order in the form of social movements or activist markets. Or, as Skwire and Lemke and Snow's papers indicate, emergent orders can be codified by and even enforced by intervention from top-down formal enforcement mechanisms.

Overall, this special issue is much more of an invitation to explore than an answer to any particular question. I asked each author to end their paper with additional questions, avenues for exploration, and directions for future research in the hopes that this issue can serve not only as a contribution to our existing set of questions but also as a producer of future questions and as a resource for scholars and anyone else who is interested in thinking about and researching the complex ways gender and other emergent orders interact.

One theme I find the most interesting and personally resonant in all these papers is the iterative interaction between our deeply personal interactions living in gendered bodies and the broader orders—both emergent and imposed—that constrain, liberate, and confound us. That perpetual dynamic opens up a range of possibilities for thinking more about what individual agency means in a gendered world and where we might go from here.<sup>1</sup>

## NOTES

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