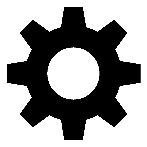
The Pragmatist’s Guide to Sexuality

What Turns People On, Why, and What That Tells Us About Our Species

By Simone & Malcolm Collins



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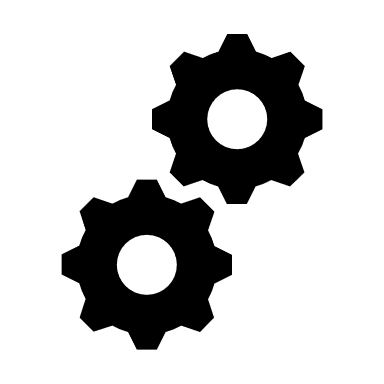
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As with our last book, *The Pragmatist’s Guide to Life*, you may request a free audio version of this book by visiting our website: Pragmatist.Guide/SexualityAudio

And as with all books written by The Pragmatist Foundation, the proceeds from this book will go to non-profits.



We dedicate this book to the anonymous netizens who spent tireless hours writing kinky fanfictions and drawing hentai inspired by obscure turn ons. You collectively illustrated a puzzle so bizarre, it compelled us to take a crack at solving it, which ultimately granted us a clearer understanding of the human condition.

This book is also dedicated to our current and future children with the knowledge that, by publishing this book, we have made their dating experiences markedly more challenging and may have definitively made sex “uncool” for them.

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# An Introduction to Sexuality

When putting together *The Pragmatist’s Guide to Relationships*, we decided to include a short chapter on arousal—what turns people on. That single chapter eventually became longer than all of the other chapters in the book combined. As we explored the available research and data on arousal systems, it became clear to us that the data does not match the social schemas into which researchers are cramming their findings. Study after study seems to be shoving a square peg into a round hole. To really make sense of how humans process sexual stimuli, we had to distance ourselves from common social conventions explaining how human sexuality works and rethink arousal pathways from the ground up.

To that end, we put together this book. It features data-driven theories on how human sexuality actually appears to operate while avoiding ideologically driven research and lines of thought. We reached out to around a hundred professional sex therapists to sanity check our findings and either added notes when their experiences conflicted with our theories or updated our theories to incorporate additional information they presented.[[1]](#footnote-1)

## Society’s Corrupted Framework

## for Human Arousal

Many inaccurate assumptions regarding human arousal stem from an idea that is now deeply ingrained in the Western consciousness: The concept that, to some extent, a person’s arousal patterns reveal something about their personal identity—who they are deep inside.

It is no mystery how this concept came to be. Individuals with non-socially condoned arousal patterns found themselves oppressed. In response to this oppression, these people found solidarity in each other’s company, forming communities around shared life experiences of oppression. Through ostracization, unique cultures began to evolve within these communities.

This type of cultural drift is common within any ostracized or oppressed that manages to congregate in private.[[2]](#footnote-2) Through involvement in these unique cultures, people began to identify their arousal patterns with their cultural identity and that cultural identity with their personal identities—leading to the unfortunate societal shorthand in which an arousal pattern is seen as a major part of a person's identity.

The largest and most influential of the communities referenced here is the lesbian/gay/bi community[[3]](#footnote-3), however a similar phenomenon has occurred within a number of groups (such as the BDSM community)[[4]](#footnote-4). Essentially, these communities were ostracized long enough that they formed distinct cultural norms, which allowed individuals to associate their sexuality with a cultural identity. By proxy, society then began to associate sexuality in general with personal identity.

This is all fine and good when a guy who is aroused only by male characteristics fits into the category of “gay” and feels socially compelled to make gay community affiliation part of his identity, thereby gaining a feeling of acceptance in an otherwise hostile world. But what about a woman who is so physiologically aroused during her own rape that she orgasms? As it happens, this is a fairly common occurrence, with 4% to 5% of reported rape cases citing it, and with estimations of the actual frequency of physiological arousal during rape being even higher (to put that 4% to 5% in perspective: A Gallup poll in 2007 suggested that 4.5% of Americans identified as gay). It is also not unheard of for a woman who has been raped to find herself mentally aroused when reflecting on the experience. Do these occurrences mean the rape someone experienced was any less traumatic and awful? Of course not. Do women who orgasm when being raped—or who become aroused while reflecting on the experience—need to incorporate that aspect of their arousal pathways into their identities? Of course not.

**Pragmatically speaking, the fact that something arouses a person neither indicates that they *want* that thing to happen nor necessitates that they must ideologically *approve* of it.** Some people choose to incorporate their arousal pathways into the way they conceptualize their identity and that personal choice is often something to be lauded. Nevertheless, we run into problems when we treat it as a cultural mandate that a person’s sexuality must indicate something about their identity.

Denying a person’s sexual identity can lead to depression and even suicide, however flippantly mandating a person’s sexual identity based on their arousal patterns can trigger the same outcomes.

The cascade of problems caused by people conflating arousal patterns with personal identities does not end with the suffering of those pressured to accept identities they do not feel fit them. Any exploration of human arousal patterns that grants special treatment to specific patterns of arousal just because large oppressed communities exist around them is bound to create a lens that distorts the underlying mechanisms driving human arousal.

This distorted lens may lead someone studying human sexuality to ask: “Where are you on a spectrum from straight to gay?” This question would miss a pattern we found in our data suggesting that people's arousal systems are not bundled by the gender of whatever it is that turns them on: 4.5% of men find the naked male form aversive but penises arousing, while 6.7% of women find the female form arousing, but vaginas aversive. Using simplified community identifications like the gay-straight spectrum to investigate how and why arousal patterns develop is akin to studying historic human migration patterns by distributing a research survey asking respondents to report their position on a spectrum from “white” to “person of color.” Yes, “person of color,” like the concept of “gay,” is a useful moniker to understand the life experiences of a person, but a person’s place on a “white” to “person of color” spectrum tells us little about their ethnicity, just as a person’s place on a scale of gay to straight tells us little about their underlying arousal patterns.

The old way of looking at arousal limits our ability to describe sexuality to a grey scale. We miss that there is no such thing as attraction to just “females,” but rather a vast array of arousal systems that react to stimuli our society typically associates with “females” including things like vaginas, breasts, the female form, a gait associated with a wider hip bone, soft skin, a higher tone of voice, the gender identity of female, a person dressed in “female” clothing, and female gender roles. Arousal from any one of these things correlates with the others, but this correlation is lighter than a gay-straight spectrum would imply. Our data shows it is the norm for a person to derive arousal from only a few of these stimuli sets and not others. Given this reality, human sexuality is not well captured by a single sexual spectrum.

Moreover, contextualizing sexuality as a contrast between these communities and a societal “default” can obscure otherwise-glaring data points. Because we contrast “default” female sexuality against “other” groups, such as the gay community and the BDSM community, it is natural to assume that a “typical” woman is most likely to be very turned on by the sight of male genitalia or the naked male form and that she will be generally disinterested in dominance displays (because being gay and/or into BDSM would be considered atypical, a typical woman must be defined as the opposite of these “other,” atypical groups).

Our data shows this is simply not the case. The average female is more likely to be very turned on by seeing a person act dominant in a sexual context than she is to be aroused by either male genitalia or the naked male form. **The average woman is not defined by male-focused sexual attraction, but rather dominance-focused sexual attraction.** This is one of those things that would have been blindingly obvious to anyone who ran a simple survey of arousal pathways in the general American population, but has been overlooked because society has come to define “default” sexuality not by what actually turns people on, but rather in contrast to that which groups historically thought of as “other.”

This apparent blind spot in our understanding of human sexuality stems from a phenomenon pervasive in the scientific world. Concepts are developed from a male perspective because, historically speaking, most researchers and individuals in positions of authority have been male. The very concept that attraction to a particular gender must make up the core of a person’s sexuality may have emerged because sexuality has (historically) been almost exclusively researched through a male lens. Had our concepts of sexuality been developed in a female-dominated society, our data shows it is not wild to think that sexuality would be viewed from the perspective of a preference for dominant versus submissive partners and not gender preference in partners (in such a world, there is a chance that gender preference would be as much of an afterthought as preferences for dominance or certain hair colors are today).

The relative importance of our sexuality to our identity is largely a social construct. Had we been born in different timelines, we may see entirely different aspects of our arousal pathways as important while contextualizing aspects that seem critical to our identities today as relatively banal. If society had a long history of killing, driving to suicide, and otherwise ostracizing submissive people instead of gay people, it is not wild to think the way we contextualized the relative importance of these two pathways to our self-identities would be wildly different. How our sexuality influences our identity is a product of our society and life experiences, not our arousal pathways themselves. Forgetting this leads us to ask the wrong questions when investigating the inner workings of our arousal pathways by placing undue weight on the pathways that have the most salience in our current societies. To have a sober discussion of the underlying arousal patterns affecting almost every aspect of the human condition, we must discuss them in a manner that is totally divorced from their impact on our identities.

**A helpful analogy:**

* **A person’s sexuality and romantic proclivities are a light source.**
* **Their life experiences, culture, and beliefs about the world are a stained-glass window.**
* **Their sexual identity is the pattern the light shining through that window creates on a wall.**

**A different light source would yield a different pattern, but the same can be said about the stained glass. To study a light source by only asking about the pattern it creates on a wall would yield a suboptimal understanding of the light source.**



*That our sexual identity—and the impact that identity has on us—is shaped by our culture and beliefs is not conjecture but rather a measurable phenomenon. Those who grow up believing masturbation is a normal and unremarkable drive to have experience few measurable negative effects from engaging in the practice and rarely contextualize it as reflecting on their identity. Essentially, when your culture frames masturbation as unremarkable, you will not think of a desire to masturbate as a notable character trait.*

*In contrast, masturbation practiced by those who are raised to believe masturbation is deviant or representative of a lack of self-control has major negative effects on mental health (including increased irritability, anxiety, depression, and anger), causes frequent rumination, and works its way into personal identity (as measured by people who believe they have debilitating porn addictions and/or see their masturbation as a major source of shame). We address the relevant research in this book’s exploration of masturbation—suffice to say that the manner in which a person answers the question: “Is being a masturbator a major part of who you are?” tells us more about their culture and beliefs about the world than their underlying desire to masturbate.*

*This phenomenon isn’t relegated to negative cultural norms. For example, if a society glorifies stereotypically masculine hetero males and a person’s natural proclivities align with this identity, they are likely to incorporate it into their sexual identity.*

*The more a society regards underlying proclivities related to romantic attachment and arousal as notable, the more likely a person will be to incorporate those proclivities into their sexual identities. How sexual identities affect those who adopt them is dependent on whether society and/or the people themselves contextualize them as positive, negative, or neutral in nature. Alternatively, if society sees a pattern of sexual or romantic proclivities as unremarkable, people are unlikely to incorporate that pattern into their sexual identities.*

*Long story short: A person’s sexual identity is a product of how that person’s underlying arousal and romantic proclivities have impacted their lives and self-perceptions. As such, sexual identity is totally dependent on an individual’s culture and beliefs and thus outside the scope of this book, which seeks to explore our more immutable arousal and romantic impulses.*



The idea that our sexuality reveals some truth about the way we are supposed to act was picked up by individuals with other agendas and has clouded public and academic understandings of sexuality even further. For example, people somehow got it into their heads that if they could prove that early humans were polyamorous or monogamous, they could prove that such human pairings were the ideal and “correct” way for us to live today because it would be our “natural state.” In this book, we will review evidence that early humans practiced infanticide and that we still have some deeply ingrained genetic tendencies tied to that practice. Does that mean we should bring back the tradition of a good-old-fashioned baby stomp? Of course not. This idea that our “natural state” is a societal mandate is absurd.

**A Pragmatic approach to arousal patterns requires that we shed all the aforementioned preconceptions.**

There is not much evidence to indicate that people have significant influence over what arouses them. The only thing over which people have a choice is how they feed or deny the arousal pathways they experience. Even while an individual’s arousal patterns say nothing about them as a person, humanity’s patterns of arousal, in general, may grant us insight into the conditions under which our species developed.

To understand what arouses someone is to merely understand which stimuli will create a positive sexual feeling in that person’s brain (as well as what stimuli will disgust them—but more on that later). On a less granular scale, to understand stimuli that arouse most humans is to understand (1) how our brains work and (2) the conditions and social structures of our early ancestors. These are the elements of sexuality that this book explores.

This is a book on sexuality. We will not spend much time addressing gender identity outside of subjects in which factors like hormone treatments affect arousal patterns. We understand that that gender identity often gets conflated with sexuality, but a person of any gender identity can have any sexuality.

Even when we stray from sexuality, our tangents will either explore the implications of sexual arousal patterns or focus on other basal impulses associated with mate acquisition (such as the “love system”).

## The Minnesota Popper

In 2009, a man in Minnesota was caught breaking into buildings and slashing the large fitness balls used in workouts . . . *again*. He was first caught in the act in 2005, when he went on a spree slashing 72 fitness balls in three different incidents after breaking into personal fitness centers. When questioned, he said he did this at the behest of a strong sexual urge.

The natural reaction to reading this is to dismiss the guy as a creep and give the topic no further thought. Fortunately, we are weirdos. When we stumble across a human acting in a way we don’t understand, we see an irresistible puzzle. Every piece of bizarre online pornography, impossibly strange, sexualized fanfiction, and story tied to a weird kink presents another Gordian knot of the human condition. How did systems that evolved to get us to breed lead to this? These are not random systems; there is some method behind the madness. When human arousal pathways fire in unusual patterns, they often fire in the *same* unusual patterns—patterns that are certainly not explained by the lazy hand wave that claims all taboo things are arousing (a persistent myth).

If we do our job well, by the time you are finished reading this book, you will never be confused by a weird kink again. Even behaviors as bizarre as those exhibited by the Minnesota Popper will strike you as fascinating case studies, full of valuable insights into the inner workings of the human psyche, rather than just bizarre tales of weird pervs.

## Dispelling Common Sexual Myths and Misconceptions

If you are sitting there, smugly telling yourself that nothing weird arouses you and that you are just here to figure out what is wrong with the “deviants” of the world, we have some bad news: The surveys we ran when putting this book together suggest that you, dear reader, are in fact the strange one. Apparently, the vast majority of humans find wacky, seemingly random (or at least non-socially condoned) things to be arousing. Our research survey, the data of which actually skewed *conservative* vis a vis most peer-reviewed research on the same subject, suggests the average person finds 22 weird things arousing: 23.1 for men; 20.8 for women. The average person doesn’t just have “a kink,” but rather a menagerie of turn ons many would consider to be risqué.[[5]](#footnote-5) (See the supplement for more information on these results on page .)

If, in the course of reading this book, you find something to be X-phobic or shaming toward Y-kink, you clearly misunderstand our intention. In constructing this book, we perused humanity’s proverbial internet search history. You all are a bunch of ghoulish pelicans. Being human is something that merits at least *some* shame. The fact that we are burdened with stinky, sticky, goo-producing genitals is punishment enough—and yet some of us slam them together . . . and even put our *mouths* on them. What is *wrong* with our wretched species???

If humans were not collectively brainwashed by our neurology to find the prospect of recreationally sticking penises into vaginas while making silly faces and noises to be arousing, we would find the whole process just as absurd as any so-called “kink.” Finding penis-in-vagina sex to be arousing doesn’t make a person any less ridiculous just because our society has categorized the act as “vanilla.”

If we *must* live in this fallen state, we might as well make an effort to understand its nuances instead of attempting to evade them. One cannot simply slice through the Gordian knot that is human sexuality with one blow. We don’t want our readers walking away because they think all sexual mysteries can be easily explained, so let's start by exploring a few common explanations for why weird things are sometimes arousing.

### Myth: Internet Porn Inspires Strange Kinks

Unusual arousal patterns are categorically *not* caused by internet porn. We know of such patterns existing well before internet porn. Consider this excerpt from a letter James Joyce wrote to his girlfriend in 1904:

*I did as you told me, you dirty little girl, and pulled myself off twice when I read your letter. I am delighted to see that you do like being f\*\*ked arseways. Yes, now I can remember that night when I f\*\*ked you for so long backwards. It was the dirtiest f\*\*king I ever gave you, darling. My prick was stuck up in you for hours, f\*\*king in and out under your upturned rump. I felt your fat sweaty buttocks under my belly and saw your flushed face and mad eyes. At every f\*\*k I gave you your shameless tongue come bursting out through your lips and if I gave you a bigger stronger f\*\*k than usual fat dirty farts came spluttering out of your backside. You had an arse full of farts that night, darling, and I f\*\*ked them out of you, big fat fellows, long windy ones, quick little merry cracks and a lot of tiny little naughty farties ending in a long gush from your hole. It is wonderful to f\*\*k a farting woman when every f\*\*k drives one out of her. I think I would know Nora’s fart anywhere. I think I could pick hers out in a roomful of farting women. It is a rather girlish noise not like the wet windy fart which I imagine fat wives have. It is sudden and dry and dirty like what a bold girl would let off in fun in a school dormitory at night. I hope Nora will let off no end of her farts in my face so that I may know their smell also.*

*...*

*F\*\*k me dressed in your full outdoor costume with your hat and veil on, your face flushed with the cold and wind and rain and your boots muddy, either straddling across my legs when I am sitting in a chair and riding me up and down with the frills of your drawers showing and my cock sticking up stiff in your cunt or riding me over the back of the sofa.*

*...*

*F\*\*k me on the stairs in the dark, like a nursery-maid f\*\*king her soldier, unbuttoning his trousers gently and slipping her hand into his fly and fiddling with his shirt and feeling it getting wet and then pulling it gently up and fiddling with his two bursting balls and at last pulling out boldly the mickey she loves to handle and frigging it for him softly, murmuring into his ear dirty words and dirty stories that other girls told her and dirty things she said, and all the time pissing her drawers with pleasure and letting off soft warm quiet little farts behind until her own girlish cockey is as stiff as his and suddenly sticking him up in her and riding him.*

There you have it: James Joyce, the author of *Ulysses* and a man considered one of the greatest authors in human history, was aroused by farts, overweight women, sweat, roleplay, and anal—plus, in his letters, his pet name for his girlfriend is “fartling,” which we find to be the most delightful pet name ever.

Honest discussions about human sexuality throughout history, ranging from *My Secret Life* (an anonymous sex life memoir written in 1888) to the writings of the Marquis de Sade (who lived from 1740-1840), show a similar pattern. Humans have always been kinky.

What is really interesting is that the kinks these historic sources mention are still seen in online pornography today—be it in the form of fart porn or sadistic gore. Heck, even porn of cartoon characters has been distributed since the very first cartoons of the 1920s in Tillie-and-Mac books (for more on this, see: “Emotional Connections to People” on page). We have yet to find a set of “historic kinks” that are not still seen in our modern population. This is really cool, as it suggests that the unusual arousal patterns we see in some portion of the current population are not a result of contemporary culture and that weird online pornography exists to fulfill an innate, enduring arousal pattern experienced by a portion of the population.

There is a surprising amount of data to back up the assertion that unusual arousal patterns are not caused by porn; we will explore the research in greater detail in the book’s chapter on masturbation. It suffices to say individuals who consume large amounts of weird internet porn do not show lower arousal rates (vis a vis the general population) when engaging with more “vanilla” porn—despite persistent myths to the contrary. The data indicates that when someone develops an obsession with weird internet pornography, it is more likely that they found a set of stimuli that more perfectly fits a preexisting arousal pattern, like a key in a lock. Arousal from unusual types of pornography does not increase dramatically with use and it does not diminish arousal from other sources; it just activates the same pathways more acutely as it is a more perfect arousal trigger for some.

Weird internet porn is not the cause of unusual arousal patterns, but rather a symptom of weird arousal patterns engaging in an anonymous environment.

### Myth: Godless Societies Foster “Deviant” Sexual Interests

Some claim that all arousal patterns not tied to penis-in-vagina sex between a married couple arise when a society “loses God.”

There is an element of truth to this. When surveyed, religious individuals claim to consume porn at lower rates than non-religious individuals (though claimed porn consumption by religious individuals has been increasing rapidly since 1995).

This is as far as that element of truth extends, as all other data indicates that these individuals are lying. In fact, when Harvard-educated Microsoft economist Benjamin Edelman investigated porn site subscriptions and Google searches for porn on a regional basis in 2009, he found that more religious regions consume more porn than less religious regions (with the highest rates of all being in Utah).

Specifically, Edelman found that subscriptions to porn sites and online searches for sexual content were higher in states that had enacted laws to defend marriage and in which statements like, “I never doubt the existence of God,” “Even today miracles are performed by the power of God,” “I have old-fashioned values about family and marriage,” and “AIDS might be God’s punishment for immoral sexual behavior” were more prevalent.

This finding isn’t limited to this one study; in a 2015 study, Canadian researchers Cara MacInnes and Gordon Hodson found that states with a higher percentage of individuals who self-identify as very religious and consider religion to be important to their daily lives also have higher rates of searches for sexual content on Google.

Long story short, society isn’t getting aroused by “unnatural” things because we “lost God.”

### Myth: Irregular Arousal Patterns Are a Product of Poor Parenting

“It's because their parents screwed them up” is such a common and easy way to dismiss unusual behavior patterns, it has become a cliché. To be honest, we originally suspected parental influence might be a major factor shaping human arousal patterns; however, our data do not suggest that much of what happens to individuals before puberty has a meaningful effect on their adult arousal patterns (to explore the data, please skip to “Childhood Sexual Assault vs. Sexual Assault in Adolescence” on page ). That said, there *is* research that suggests possible pathways through which such an effect could occur. For example, goats raised around sheep will become sexually aroused by them, and people who grow up with younger siblings are slightly more likely to find pregnant women arousing. We merely couldn’t find such patterns in our own data.[[6]](#footnote-6)

Given the information we have at the time of this book’s publication, we can comfortably say that parents probably don’t have to worry that if they accidentally loudly fart in front of their kids at a particularly unlucky time during their mental development, the kids will develop a permanent arousal pattern tied to farts that is all the parents' fault.

### Myth: Humans Get Aroused by Random Things

“Look, dude: Humans are weird and get aroused by random things” is something we hear frequently and once said ourselves.

This might actually be a reasonable approach to this question . . . if it were valid. As it happens, one can identify clear patterns in the things that frequently arouse people. The idea of being thrown off the edge of a cliff or burned alive arouses almost no one, while something like being eaten or choked to death arouses non-trivial portions of the population. There are patterns in the human arousal system that cannot be explained by a desire to reproduce or socialization—but that are also not random.

Furthermore, these arousal patterns are often highly gendered. For example, a woman is much more likely to be aroused by having a needle pushed through their skin than a man. When there is a pattern to something, it is unlikely to be random; there is likely some underlying cause. **The shadows we see on the walls of this cave are being created by something, and while some individuals are content to say: “Ignore those shadows; just think of them as random patterns, they have always been there and we have gotten on just fine ignoring them,” we just aren't wired that way. We need to at least try to find the source.**

## About the Ideological Perspective that Informs this Book

There seems to be a trend among books investigating this topic (books that present a wider thesis about human sexuality) in which they argue that their theses prove one ideological team’s perspective on sexuality to be more “natural” and thus somehow more true. This is not one of those books.

Our society seems to have sorted itself into teams. One may be tempted to read a book like this and try to determine whether or not we are on their team.

We believe that approaching new ideas from a tribal viewpoint leads people to instinctively categorize data as “supporting their team” or “attacking their team,” which compromises their ability to piece the data together into a novel, holistic picture. All we want to do is collect the most accurate understanding possible of how humans think and behave so that we can systematically leverage this understanding to our advantage and develop a deeper understanding of the human condition.

You may wonder, dear reader: “Isn’t that what *scientists* do? Aren’t you just saying you have decided to take the position of academic consensus?”

In an ideal world, we would answer: “Yes.”

Malcolm, one of the authors of this book, started his life as a neuroscientist. While he has a deep respect for the scientific method, he finds the manner in which it is deployed by the academic bureaucracy—as it is currently structured—is optimized for building answers to specific questions. When it comes to synthesizing these discrete data points into holistic models, the academic bureaucracy lacks a process that sufficiently protects these models from the biased values and viewpoints of the individuals who stand at the top of academia’s hierarchies. While academic bureaucracies are *not terrible* at stringing together independent data points into a holistic picture, they are also *not* *great* at doing this due to systematic bias, which creates a lens altering the manner in which they see the world, especially with regard to politically sensitive topics like sexuality. To put it another way: We generally take peer-reviewed studies at their word, but we don’t give unique credence to the models of arousal processing these studies claim to reinforce and instead try to think of other explanations for the patterns they show.

At this point, you may be thinking that we are going too far in saying that the mainstream bureaucracies of psychology in academia are tainted with bias. If so, consider a study of 335 social psychologists conducted by Buss and Von Hippel, which found that well under 1% voted Republican in the last election cycle. This specific fact doesn’t bother us. Perhaps something experts in this field learn makes them more likely to vote liberal. Perhaps conservatives in academia choose degrees with more earning potential. What *does* bother us is that the resulting lack of diverse perspectives has led the field to alter, through small, individually inconsequential decisions, the manner in which academics present their findings to support a specific ideological agenda. **Science should be about looking at evidence to find what is true, not looking for evidence to argue what one already believes is true. Ideological hegemony can lead a field to the latter.**

One example demonstrating the consequences of this academic bias can be seen with the study of evolutionary pressures on sexual dimorphism, which certain facets of the conservative movement, such as the men's rights movement, have begun to discuss in mainstream materials. In reaction, a few subgroups within the liberal movement began to demonize evolutionary psychology.

The same study by Buss and von Hippel found that while most of the researchers surveyed believed in evolution, a significant percentage were unwilling to apply it to the field of psychology. **Worse, a substantial portion said that if researchers found a biological basis for sex differences, it would be bad if the findings were widely reported (well over 50%).[[7]](#footnote-7)** To put that more directly: It has become normalized in the field of sexual psychology to suppress evidence that does not align with a political “team’s” view—or at the very least have far less motivation to promote it in the public eye.

Humorously, Buss and von Hippel point out this corruption of the scientific bureaucracy stems from an evolved human tendency to form teams and move up within a social hierarchy by signaling ideological commitments to your coalition. This behavior evolved because the ancestors of these academics that exhibited it had more surviving offspring. Academics are essentially refusing to look at how evolution affects cognition because of an aspect of their cognition molded by evolution.

When one is “doing research” but knows that they may be motivated to occlude some potential results before the data is even collected—perhaps due to political leanings, out of concern related to the impact on society those findings might have if shared, or due to fear for one’s professional reputation and livelihood—they are not “doing research.” It is irrelevant whether this person has good intentions or if they get lucky and their data happens to support a position they can publish.

We are not sexually conservative by any measure, but we also won’t go out of our way to argue that any non-standard sexualities or sexual behaviors exist for the betterment of society. Moreover, we won’t put much effort into not offending politically delicate sensibilities. **Our goal is to systematically understand how the human brain works so we can exploit that understanding to our advantage. The more fidelity our understanding contains, the better we can utilize it to harvest what we want from the world.**

The political and philosophical skew we observe in academia is merely *in addition to* another, perhaps equally large problem within this realm: The replication crisis in the wider field of psychology, with some sources estimating 50% of studies being unable to be replicated.[[8]](#footnote-8) We did our best to take the replication crisis into account when constructing this book. Whenever something seemed off to us and was only reported in a single study, we made a point of running our own survey to sanity check it. Mainstream academics do not have the freedom or flexibility to make informal, back-of-the-napkin calculations using quick, few-hundred-people surveys, but these informal checks have played an invaluable role in helping us piece together a holistic sketch of human sexuality from hundreds of individual studies that are no doubt peppered with false positives.

## Citations and Research Presentation

Despite using science as our primary standard of evidence (the type of evidence we value above all others), we will not fastidiously cite every study we reference in this book.

It is all too easy to believe oneself to be a dispassionate lover of “science” and “rationality,” only to lean on studies like a crutch, cherry picking findings and conflating rationalization with rationality. It is a bad habit of countless writers and random commentators to make an outrageous claim, then cite a single study to back it up, putting the burden on the reader to look up the study and analyze its methodology, try to determine how it was funded, and look up the history of the researcher to determine whether the results are credible. We strongly disagree with this manner of communication.

If you see a statistic in a book and believe that statistic more because it comes with a study citation, we encourage you to rethink how you engage with information (again, remember that by some estimates, 50% of psychology studies are not replicable). We want to do our part in fighting against these sorts of dangerous mental shortcuts.

When we make a claim you find to be dubious, the last thing we want you to do is read the same couple of studies that led us to our conclusion—especially if a subconscious bias could have led us to cherry pick those studies. That is how bad information gets spread and pop-science comes to dominate. Our goal is to create new methodologies for relating to and interpreting data. When you want to sanity check something, we urge you to go online and dig into the topic. Ask yourself why we drew the conclusions we drew given the information available to us, then draw your own conclusions—heck, maybe even run your own informal studies and share your findings with us!

We understand this runs contrary to the manner in which many were taught to engage with science and ideas, but we ask you to give it a try. You may find our approach surprisingly empowering. If you give this way of writing an honest try and still hate it, just shoot us an email at Hello@Pragmatist.Guide letting us know. Should we get enough of these emails, we will include fastidious (rather than occasional) citations in future books.

## A Supplementary Tour of Our Own Research

The first half of this book’s draft featured a tour of our own research on this topic: A comprehensive survey investigating correlations between specific arousal patterns and various personal attributes (wealth, childhood conditions, political affiliation, self-confidence, etc.). Early reviewers of the book found this section to be more of a “bathroom read” better suited for casual reference. We, therefore, shifted this exploration to an addendum at the end of the book, titled: “Supplement: A Tour of Our Research Findings*.”* You will find it on page . This supplement is something you should be able to quickly jump into and out of at any point while reading other chapters. As the main chapters of this book primarily focus on the “why, how, and so what?” of arousal, our supplementary tour of research findings will be of unique interest to those more excited by the “who, what, when, and where” questions surrounding arousal.

# The Basics of Sexuality: Attraction & Aversion

We propose an alternate framework for discussing sexuality in this book. We find this framework maps to the research better than many common approaches to sexuality with which you may be more familiar.

When the average person talks about their sexuality, they typically list their position on the Kinsey scale—a spectrum from 100% gay to 100% straight—and then give a list of kinks, paraphilias, and/or fetishes.[[9]](#footnote-9) Someone may say, for example: “I am a gay male who is into rope play and BDSM.” Someone steeped enough in specific sub-cultures may go so far as to add some ultra-specific modifiers like “demisexual.” This larger framework for describing one’s sexuality leads to statements that are more descriptions of community affiliation than underling arousal patterns.

For just one example of why community affiliation is such a bad representation of arousal patterns, consider the data we collected on arousal patterns, which suggests that despite being dramatically more likely to identify as straight, male conservatives report watching roughly the same amount of porn featuring two males having sex (8% of conservatives versus 7% of liberals). When we focus on labels instead of underlying arousal patterns, the data gets completely scrambled.

If this is not an optimal way to describe sexuality, how *should* we be looking at sexuality?

The brain creates an “arousal impulse” when exposed to certain stimuli, the strength of which is modulated by environmental and hormonal factors. **Our sexuality should be defined as a list of the stimuli that cause us to become aroused and the relative “volumes” of those arousal outputs to each stimuli type**—with a caveat.

Arousal pathways should be thought of as existing in one of three states: positive, neutral, and negative. Negative arousal is experienced as a “gross” sensation. One person may find the idea of sleeping with an elderly individual arousing, another may find this concept deeply “gross,” and yet another may be completely indifferent to the concept. Regardless of the ethics of such an involuntary impulse, all of these are different and equally valid expressions of a person's sexuality.

In other words, arousal is a sensation that our brains evolved to draw us toward something. Arousal makes us want to look at something longer; it dilates our pupils so that we can take in more of that thing, it compels us to move closer to the target and inhale deeply. Disgust is a sensation that our brains evolved to get us away from something. It makes us want to leave the room, look away from the thing, linger as shortly as possible, and hold our noses. Disgust is not just another emotion; disgust is the manifestation of arousal with a negative modifier attached (we go into the evidence for this in detail later).

Society's inability to accept the fact that sexuality is comprised of both involuntary attraction to some stimuli and involuntary aversion to others has left people without a way to categorize aversive—“gross”—stimuli in their heads. This lack of understanding has led many to conclude that disgust they feel upon considering certain behaviors is a sign that those acts are somehow inherently bad, immoral, or unnatural.

Consider an extremely old person having consensual sex with a 25-year-old. There is nothing inherently unethical about this pairing, but in most people, such an imagined scene incites feelings of disgust strong enough to make one *feel* like there must be something morally wrong with the imagined act.

When the majority of the population’s sexuality outputs disgust to a stimulus and a minority feel strong arousal from that same set of stimuli, it is almost inevitable that society will begin to label individuals who indulge in the stimuli as “disgusting,” which is a very short distance from “immoral.”[[10]](#footnote-10)

Yet, if disgust is using the same underlying mechanisms as our arousal system, telling an individual to just “get over” their disgust is as unproductive as telling a person to try not to find something arousing. Instead, people are best served by recognizing the emotion as an innate reaction without logic behind it. (That said, like arousal, disgust can be oversaturated, so being around something that activates a disgust reaction for a long period of time will desensitize that particular pathway.)

It is easy to grandstand on issues like this, but as you are human, we anticipate your ability to empathize. When a person can’t explain where disgust comes from, it becomes very hard not to assume it means that people involved in a disgusting act are themselves disgusting as well. Were we to accept that the disgust we feel is just something to which we are arbitrarily and involuntarily subjected—just as we are subjected to our often-inconvenient arousal impulses—it becomes easier to separate emotional reactions from judgments of morality.

From a Pragmatist’s perspective, a person’s sexuality is defined by a list of stimuli and the impulse each stimulus generates in their cognition. To put this in the form of an equation:

**[Specific Stimuli] -> [+1, -1, or 0] \* [Volume Multiplier] = [Arousal or Gross Impulse]**

Let us explore each factor in turn.

**[Specific Stimuli]**

These make up all things capable of eliciting a positive or negative arousal impulse (with a positive arousal impulse being a feeling of arousal and a negative one being a feeling of disgust) and range from visual representations (e.g., breasts) to emotions (e.g., humiliation), physical and sensory stimuli (e.g., rubbing an erogenous zone), and concepts (e.g., “sluttiness”).

**[+1, -1, or 0]**

Stimuli associated with a positive modifier are experienced as sexually arousing—being attractive, compelling, and desirable—while those with a negative modifier are experienced as sexually aversive—being gross, disgusting, or icky. This variable can also have a null state in which something is blocked or nonfunctional about a particular pathway. In this case, neither disgust nor arousal is triggered by a particular stimulus.

**[Volume Multiplier]**

This is a multiplier that determines the power of the impulse created by specific stimuli. For example, the average human likes having their nipples touched a little, but the arousal this category of stimuli generates may be uniquely strong or weak.

## Developmental Distance

We treat the volume multiplier and attraction versus aversion as two independent variables in an equation—instead of presenting an arousal and aversion spectrum with a neutral reaction being the mid-point—because we believe there is copious evidence indicating that these two factors (volume and attraction/aversion) are developmentally quite far apart.

Developmental distance is a somewhat confusing topic. Should you want a quick refresher on the concept, consider this analogy:

Imagine a mayor whose intern comes into the room and says two government buildings just burned down. The mayor’s first question to that intern is going to be whether or not the buildings were adjacent to each other—as that would indicate a fire just spread from one building to the other—or if the buildings were on other sides of the town, as that would indicate some sort of planned arson that is unlikely to happen naturally. The volume and the aversion/attraction modifiers are buildings on different sides of town.

The biggest practical implication stemming from the separation of attraction/aversion from a volume multiplier is that it is unlikely for both the volume multiplier and aversion/attraction sign associated with specific stimuli to be “abnormal” in the same person. This enables us to more accurately model the manner in which other people experience their sexuality. Imagine sitting in the same room as a bloated rotting corpse. Imagine how strongly compelled you would be to get out of that room. Wouldn’t it be a stronger stimulus than almost any form of attraction you have? A person attracted to rotting corpses likely has just as strong an attraction as you feel an aversion because their volume is working “correctly,” but their aversion/arousal impulse is functioning “abnormally.”

If sexual arousal existed on a spectrum, we would see some people with a moderate attraction to corpses. We do not see this in practice. When most people find something very repulsive, there is generally a small population that finds it extremely arousing and almost no population that finds it mildly arousing (though there will be an indifferent population in which some part of the pathway that usually outputs either arousal or disgust is non-functional). Likewise, small niches of our population find typically arousing things to be utterly repulsive (here you can think of people who report finding genitals or power differentials between sexual participants to be repulsive).

This pattern of near (but not complete) consensus regarding aversion/attraction is visible both in our own surveys and in broader peer reviewed research on sexuality. It can almost be thought of as a core facet of human sexuality. If something is strongly aversive to most of the population, a small portion will find it strongly arousing. If something is strongly arousing to most, a small portion will find it strongly aversive. (We present our theory around the mechanism causing this in the “Inverse Systems” subchapter on page .)

Finally, the arousal pathway we are talking about here is only tangentially connected to the love / pair bonding pathway. These pathways are connected in that arousal appears to lower the activation threshold for forming a pair bond with an individual and being pair bonded to someone seems to lower the threshold for arousal from stimuli associated with them, but other than that, these pathways are separate. The way a person's pair bonding system works should not technically be thought of as part of their arousal system (though we do investigate the pair bonding system in this book—see: “The Mechanics of Love” on page ). It is much less common for the pair-bonding pathway to behave atypically when contrasted with the arousal pathway, meaning this pathway is much more “robust” from a neurological perspective. That said, atypical pair bonding *does* happen—like in the case of Erika Eiffel, who married the Eiffel Tower.[[11]](#footnote-11)

## Songbirds & Boobies

Supernormal stimuli play an important role in our understanding of sexual arousal so let’s take a moment to review how supernormal stimuli work.

Imagine a songbird that lays blue-speckled eggs. They likely evolved blue-speckled eggs because that pattern differentiates the eggs from other things in their environments, such as random rocks, making it easier for these songbirds to know what to sit on. They also likely evolved an impulse to sit on objects with blue elements to ensure they properly care for their eggs.

What happens if you put a nest full of bright blue marbles next to this bird’s nest? The songbirds abandon their real eggs for those marbles! Why? Because stimuli like these bright blue marbles did not exist in the environment within which the songbirds evolved and thus the impulse they evolved that shouts: “SIT ON THE THING WITH THE MOST BLUE” never needed a modulating filter for something that is *too* blue. (Supernormal stimuli are seen all over the animal kingdom—if you want to read about specific instances of it, just Google them like a normal person.)

What does this have to do with human sexuality? Suppose you have trouble understanding why someone is sexually aroused by bakunyū pornography (pornography of women with inhumanly large breasts—breasts half the size of their bodies). Now you know! In the brains of bakunyū aficionados, there is a system that says: “Breasts = female, so even larger breasts must = *extra* female—and what do I do with females? I breed with them, of course!!”

Just like those silly birds that feel compelled to sit on round, super-blue objects that couldn’t possibly be eggs of their own species, some humans feel a compulsion to sleep with women whose breasts cannot possibly be human . . . and so they draw porn of them.

“But wait,” you may be thinking: “Why aren’t *all* people affected by supernormal stimuli?”

Good question! We don’t really know.

Perhaps one of two things is happening: Either normally functioning arousal systems have a range of normalcy and begin to inspire negative, “gross” reactions when overstimulated or, more likely, there are separate opposing reactions that push people in the opposite direction. Specifically, a person may have a system for detecting whether something looks inhuman and generate an aversive “gross” reaction, which overwhelms any additional arousal the larger stimuli would incite, preventing most individuals from finding gigantic breasts sexually arousing.

In other words, either when an arousal system is functioning normally, it begins to output an aversion reaction when it is overstimulated, *or* the reason most people find things like giant breasts aversive is because of a completely separate arousal/aversion system that is outputting an aversion response to things it identifies as monstrous/inhuman—and *this* aversion overrides the arousal created by the sight of overly large breasts.

We are in favor of this second explanation: That there is a separate counterweight system that outputs aversion when something veers too far from an average human form. If systems existed to elicit a gross reaction when seeing something “monstrous,” we would expect such systems to occasionally break and generate a high level of arousal in a portion of the population (we explain why you would expect this in the “Inverse System” chapter on page ). This would explain the popularity of monster hentai, a form of erotic art that caters to people aroused by uniquely inhuman forms engaging in sex with a human. In another portion of the population, we would expect this system to “break” in a different way, simply not outputting the normal aversion reaction, but also not outputting a unique arousal reaction, which would lead to the arousal some experience upon seeing giant breasts, but which would mean the same individuals would be equally aroused by anything else giant that otherwise arouses them (e.g., if they are aroused by penises, they will also be aroused by *giant* penises).

We decided to test this theory with our dataset. If our theory is correct, individuals who are into bakunyū do not have an overactive attraction to breasts, but rather the system in their brain meant to output disgust upon exposure to monstrous images is producing either no output or a positive output. When we looked at males in our data set that were aroused by inhumanly large breasts, we found that 22% of them were also aroused by inhumanly large penises while 0% of the men not aroused by inhumanly large breasts were aroused by inhumanly large penises. This is meaningful because this is not that far from the percent of men who find penises arousing in general (17%), indicating the same phenomenon happening with breasts is happening with this separate arousal pathway as well, exactly as our theory would predict and something that would not be predicted by current arousal models.

But wait—there's more. Let's call men who are aroused by bakunyū (16.5% of our data set) B and men who were not N and look at a few other categories of arousal we would expect to be affected if our theory were correct:

* Arousal from tentacle porn: 17%B, 6%N
* Arousal from furries: 11%B, 4%N
* Arousal from giants: 22%B, 4% N
* Arousal from amputees: 6%B, 0%N

The real kicker is arousal from amputees, as the correlation is extremely strong (with 0% of N being turned on by amputees). We cannot think of any mechanism other than that which we proposed, which would connect arousal from inhumanly large breasts to arousal from amputees.

Not only does our data support that disgust is being used in normal human arousal systems to modify the things that arouse us and shape our sexuality, but that our responses to supernormal stimuli are specifically kept from going out of control by a system that is supposed to create disgust in response to things that don’t look like a “normal” human.

**Note from the Research:**

* Around 50% of roosters will attempt to mate with an artificial chicken head mounted on a feather-covered board. Male turkeys will attempt to mate with a rubber ball, so long as it's the size and height of a female turkey head. Basically, males of most species will attempt to mate with anything that looks marginally like a female.
* We found one study suggesting that fat admirers also ranked underweight women as more attractive than the control group. This implies that in a portion of the fat admirer population, the specific mechanism that is not functioning “properly” is the one that is supposed to yield a disgust impulse upon exposure to bodies that fall outside of a certain range of parameters. With this system broken, these individuals receive supernormal stimuli from obese women. These findings imply that a certain proportion of fat admirers do not differentially find fat partners specifically attractive, but rather do not get the normal disgust impulse from individuals with extreme body shapes—be those shapes too fat or too skinny.

## Responsive vs. Spontaneous Desire

Arousal and interest in sex do not emerge spontaneously in everyone.

To deal with this reality, some therapists have divided arousal patterns into “spontaneous desire” (i.e., when a concept or image is immediately arousing to a person) and “responsive desire” (i.e., when a person begins to feel arousal only in response to various stimuli, like a back rub, a relaxing evening, a romantic setting, or watching porn).

Discussions of responsive versus spontaneous desire appear to be in vogue these days. We understand why. The concept is immensely helpful to sex therapists who regularly have to explain that one partner isn’t disinterested in the other just because they are not keen to have sex at the drop of a hat. It is helpful for partners to understand that one person may reach a state of arousal merely upon seeing the female form while another person may need prolonged, tactile arousal sources in order to feel strong sexual arousal. That said, we do not think it is groundbreaking to acknowledge that different people (and different genders on average) get aroused by different types of stimuli and require different lengths of exposure in order to feel sexually aroused.

The concept of spontaneous versus responsive desire nevertheless facilitates interesting research exploring arousal patterns, especially in women. Suppose a woman is showing an increased blood flow to her genitals, but not claiming to feel any mental arousal. How does one code such signals when studying things that arouse people? While this question seems like quite a sticky wicket in theory, it is fortunately next to irrelevant in practice.

Why? We couldn’t find a single study that showed any sort of stimulus that was much more likely to end up in one of these two states (well, except for the monkey sex study, which showed women experiencing increased blood flow to their genitals when watching monkeys having sex—something we doubt many women would admit to finding mentally arousing even if they did). In other words, both self-reported surveys and blood flow detection offer reliable systems for measuring what proportion of a given population finds something arousing because they typically come to the same conclusions (except in cases in which a person is culturally pressured to not find something mentally stimulating).

## Inhibitory Systems & Libido

Some people add a third category to discussions of responsive versus spontaneous desire called “contextual desire,” which essentially highlights the fact that environmental factors, such as stress or knowledge that kids are in the next room, can affect one's ability to become aroused. Essentially, there is a system that detects specific environmental scenarios and downregulates arousal when in the presence of these stimuli, which we will call the Sexual Sublimation System (we use this term to differentiate it from the concept of the “Sexual Inhibition System,” a fleshed-out theory that conflates specific aversive stimuli with sexual sublimation).

Knowledge of this system can aid understanding of those who rarely feel arousal, as their lack of arousal may be the product of one (or more) of the following four factors:

1. Their general arousal systems are set to a low output level (some call this having a low Sexual Excitation System)
2. Their Sexual Sublimation System is overactive, creating a ton of inhibition in response to low stimuli levels
3. Their Sexual Sublimation System responds to more/different stimuli types than an “average” configuration of this system would (i.e., for whatever reason it activates in response to indoor spaces)
4. Something that triggers their Sexual Sublimation System is very common in their daily lives (such as stress or kids)

This system is fairly simple to understand, and it makes perfect sense that we have it. Most of the things that dampen arousal are clearly tied to environments in which it may make sense to downregulate the production of additional children (such as hearing children in the next room, interacting with a baby, uncertainty, ugly environments, insecure environments, or high stress). These systems appear to be more active in women than men, which also makes sense and can help one troubleshoot an apparent low sex drive (e.g., maybe stress reduction needs to come before attempts to improve one’s sex life).

Sexual sublimation systems are not the same as aversion systems. These systems merely downregulate how much arousal you will feel from anything. On the other hand, aversion systems create explicit disgust. To understand the difference, consider the lower sexual output you feel when super stressed or when kids are playing in the next room versus the acute “ick” emotion you experience when imagining sex with someone you find disgusting (maybe a really old person, a really ugly person, or a really unhygienic person).

At any rate, reactive and contextual desire explain the trope of needing to take one’s wife out on a luxurious feeling, romantically lit date followed by lots of foreplay to be able to enjoy a decent sex romp as a married couple. This is because both inhibitory systems and reactive arousal patterns are stronger in females, and adult, married females may have more arousal-dampening factors in their lives (such as jobs, kids, dependent parents, and the stress of juggling these often-conflicting responsibilities) than a relatively unattached, typical young woman.

## How Do People Develop Varying Levels of Attraction and Aversion to Stimuli?

The first question you may ask having reached this point in the book is: “Could it just be that we are born with a specific sexuality?” The answer is a strong: “Maybe . . . ”

Here is what we *can* say: Attractions and aversions that appear early in our development (e.g., those that manifest right at puberty or even before puberty) appear to be the strongest and do not appear to be traits we can easily alter in adulthood. People have gone to great lengths to alter certain attractions and aversions (e.g., due to the negative stigma some social groups applied to “gayness” conversion therapy has been extensively experimented with in those communities) and **there are no foolproof methodologies for intentionally switching out one set of stimuli that arouses an individual for another, intentionally selected set of stimuli** (e.g., conversion therapy does not work)**.**

That said, an absence of means by which we might intentionally and permanently alter aspects of our sexuality that appear in early life as adults does not mean that sexuality does not shift in adulthood. A hearty 20% of young adult women and 5% of men report changes in their arousal patterns tied to the genders they find stimulating over a 5-year period, so clearly some attraction/aversion patterns shift. However, we don’t know what causes these changes, plus they seem to happen much more often in people who start by reporting attraction to both men and women.[[12]](#footnote-12) Specifically: Women attracted to both men and women who experience a change in their arousal patterns are more likely to drift toward identifying as heterosexual with time, whereas men who report attraction to both men and women split, with about half of those who change their sexual expression drifting toward being more heterosexual and half more gay. (For more on this phenomenon see: “Prevalence and stability of self-reported sexual orientation identity during young adulthood” in the *Archives of Sexual Behavior*.)

One method shown to lower arousal to sexual stimuli *for a period* involves desensitization through overexposure. In other words, if you binge on one sexual stimulus, you will ultimately require more of it to get the same reaction. At extremes, overexposure can completely desensitize a person to a stimulus in this category, though this effect will wear off with the cessation of this overexposure. In other words, gay conversion camps could lower “gay thoughts” for a period if they provided nothing but all the gay sex a person could want, all day every day, though we doubt those running gay conversion camps would be comfortable with this treatment method.

In addition to temporary alteration through desensitization, we know that arousal pathways can be altered (though not reliably) through shifts in a person's hormones. When people go through hormone therapy during sex reassignment surgery, their sexuality goes through drastic changes (though we want to emphasize that being trans doesn’t really have anything to do with sexuality, only your gender identity—all we are saying is that changing your hormones can change what arouses you). Multiple studies show that around 40% of individuals report experiencing changes in their sexual attractions during transition. Statistically speaking, most of these changes include shifts from exclusive attraction to one gender pre-transition toward some level of attraction to both men and women post-transition, but around 13% of trans women switch from exclusive or primary attraction to women to exclusive or primary attraction to men (most research on transitions finds no such drastic changes among those who were initially attracted to men). Of trans men initially attracted exclusively to either men or women, 6-7% experienced a complete attraction reversal after transition.

That said, if you read many personal accounts of transitions, you will notice an interesting pattern: Something about our hormones is tied strongly to the aversion system we noted above, as many find stimuli that formerly generated a strong aversive impulse to suddenly be arousing. In other words, occasionally during a person's hormonal transition, something they found to be icky before will suddenly and inexplicably start to arouse them, meaning the pathway that causes this flip is almost certainly using hormonal cues.

## The Human Mating Season

Humans seem to have something of a mating season, which is weird because no one ever talks about it. This season lasts from Christmas through Valentine’s Day and reaches its peak on the Sunday after New Year’s Day (which in the dating industry is called Dating Sunday). This increase in dating activity can be seen very clearly in data from dating apps; however, seasonal fluctuations in dating behavior are not just a dating app phenomenon. There is actually a seasonal increase in sexual interest and desire over the same period. You will see an increase in Google searches for pornography and prostitution over this period. (We would love to conduct more research to determine whether this is a cross-cultural phenomenon and whether or not it affects genders differently.)

## Writing on Eggshells—Human Sexual Dimorphism

There are dozens of manners in which we might offend any myriad of groups when writing on the topic of sexuality. Seeing as there is no means by which we can accommodate all (often opposing) groups, we are already bracing ourselves for the blowback. While we enthusiastically engage with the type of information that leads people to feel the type of offense humans generate when their beliefs about the world are credibly challenged, we go out of our way to *avoid* the type of offense generated from undermining an individual's self-image (such offense serves no purpose outside of cruelty). Alas, avoiding such unintended personal attacks when discussing sexuality has us walking—er, writing—on eggshells.

For the most part, this eggshell stroll is just that: A delicate and pained walk over terminology. For example, we sometimes found ourselves racking our brains to determine whether to use the word sex or gender when talking about attraction to dimorphic traits in an evolutionary context, as evolution uses gender as a proxy for sex (e.g., hip sway is both a performative aspect of gender and a result of a sexually dimorphic female hip bone). Fortunately, when it comes to issues of semantics, there usually is a way to avoid offense—this is not the case with potentially offensive *facts*.

There is one political hot-button issue that we cannot dance around if we are to adequately delve into underlying mechanics driving sexual arousal and behavior: **Humans are a sexually dimorphic species; this dimorphism extends to our arousal systems and behavioral impulses.** In other words, males and females exhibit varying characteristics beyond just different sexual organs, and these variances extend to our behavioral impulses and arousal/aversion systems. The existence of sexual dimorphism is highly offensive to certain groups that wish to believe that there are zero cognitively ingrained differences between males and females.[[13]](#footnote-13) Some of these groups go so far as to argue that socialization is the only reason why women are more aroused by penises (on average) than males. (As you can imagine, it is very difficult to write a book on arousal patterns that does not break down on male-female differences in those patterns, hence our obligation to address this point.)

Men and women in the human species exhibit sexual dimorphism in almost every organ we have—from our digestive systems to our skin, dentition, and bones. The idea that evolution placed a magical “brain barrier” on sexual dimorphism is ludicrous, considering that homo sapiens would have had to somehow *reverse* the mental differences that clearly exist in our recent ape ancestors.

Our recent ancestors *absolutely* exhibit mental differences across sexes. If you put a bunch of chimps together with no previous chimp socialization, they almost always sort into a patriarchy, whereas bonobos almost always sort into a matriarchy (some have argued that sexually dimorphic behavioral patterns in chimpanzees were socialized through chimpanzees watching humans, but if this were true, we would have seen a similar effect in bonobos—and this effect is not seen). Heck, not just our most recent ancestors, but almost every well-studied social mammal species we can think of presents clear, sexually dimorphic behavior patterns that are not socialized.

When we assert that there are systematic statistical differences in male and female brains, and when we state that there are sexually dimorphic behavioral impulses which are not socialized, **we are not claiming that there are “male brains” and “female brains.”** One cannot look at a brain and tell if its owner is male or female. Asserting that a person who claims there are statistical differences in behavior patterns is arguing for biological determinism is akin to saying that a person stating that men and women have different heights on average is basically saying there is a “male height” and a “female height” and that by measuring a person's height you can tell their sex.

**We also do not claim that socialization plays no role in male and female differences**. Socialization plays a huge role in male and female behavioral patterns; it simply is not the only influence at play.

To our great consternation, individuals who deny sexual dimorphism of behavioral patterns will often admit that men and women have different aggregate rates of certain hormones, and that those hormones impact behavior. They admit this because:

1. It is easily and objectively testable that men have more testosterone than women on average.
2. Even a street junky knows when you shoot up roids your behavior will change. (“Roids” are the street name of anabolic steroids, which include testosterone and testosterone precursors.)

While some of the specific effects claimed to be associated with testosterone or estrogen can be credibly challenged (such as the claim that testosterone leads to more risk-taking behavior), it is absurd to claim that testosterone and estrogen have absolutely zero effect on behavior impulses. If that were true, why do we have testosterone and estrogen receptors in our brains? What’s the point of doing all the logical gymnastics required to claim that there are no sexually dimorphic impulses in human males and females if one already concedes that men and women have different hormone levels, which would naturally trigger different impulses, regardless of other inbuilt sexually dimorphic traits?

What makes it even more difficult to argue that men and women are cognitively identical is the fact that mental illnesses present themselves at different rates in men and women.

We can see a person arguing that schizophrenia being twice as common in men—and depression and Alzheimer’s being twice as common in women—is somehow tied to socialization. That said, it feels almost offensive to argue that autism being diagnosed at five times the rate in men is only a product of socialization and not neurological differences in men and women given that it is recognized between 12 months of age and 18 months of age.

We acknowledge that the manner in which adults treat babies is gendered—studies have shown that baby girls are more likely to be called pretty and baby boys are more likely to hear references to their future careers—but to argue that this could lead to a *fivefold increase in autism diagnoses* is bananas. While one could argue that it is just that autism is merely diagnosed less frequently in girls given how differently it presents, with its actual rate of occurrence not changing between genders, the point still stands: This radical difference in presentation and recognition happens at the age of 12 to 18 months, indicating a different underlying neurology is the cause of the different presentation / diagnosis rates in girls and boys, not socialization.   
  
If you really believe that gender differences in autism are a product of socialization, we would encourage you to run a study on the rates of autism in children raised gender neutral. If you could demonstrate that raising young boys in a gender-neutral environment dramatically diminishes presentation of some unwanted behaviors associated with more extreme cases of autism, you would be doing the world a great service.[[14]](#footnote-14)

People who claim to believe that the difference in autism presentation is due to gender socialization have not, to our knowledge, systematically tested that claim—likely because they see ideas as more of a team sport than as a tool for improving people’s lives. (We’ve actually made a note to fund a study on autism presentation in children raised gender neutral and hope to have some form of results out there by 2025; while we think the current evidence suggests the difference in autism presentation between men and women is primarily a factor of a different neurology and not socialization, if we are wrong it would be an excuse to write another book that could help a lot of people.)



***A Note to Those Subject to Pseudo-Scientific Propaganda Against Sexual Dimorphism***

*Many individuals get exposed to skewed views of academics through pseudo-scientific articles and brief book reviews spread via social media, which can lead them to believe there is some large academic community out there that believes males and females have exactly the same behavioral impulses on aggregate. This is simply not the case. Most of the researchers and books cited by these individuals are typically making different, more nuanced arguments.*

*One author often cited in arguments against sexual dimorphism is Gina Rippon, who wrote “The Gendered Brain.” Rippon has been quoted as stating, “I am not a difference denier,” claiming her critics have mischaracterized her. Instead, Rippon is merely trying to argue that “biology is not destiny” and that we often overstate how much of the differences between men and women are biological: “Yes,” she writes, “there are good studies out there that show sex differences . . . but keep the context in mind” (something with which we agree). Rippon continues: “The strawman argument is that I said there were no sex differences in the brain. I didn’t say that.”*

*Another author often cited in this realm is Cordelia Fine, who wrote Testosterone Rex and Delusions of Gender. Fine states clearly that “testosterone affects our brain, body and behavior” and agrees that* on average*men and women have different levels of testosterone.*

*These authors, whose words have been twisted by extremists on both sides, often argue the following:*

* *That specific instances in which people assume men and women are different along gender-stereotyped lines are wrong or not backed by evidence. For example, there are not great controlled studies substantiating claims that “men take more risks” and “men are smarter,” yet these claims are both widely believed; hence, it’s worth it to attack them.*
* *That specific logic used in evolutionary explanations for sexually dimorphic human behavior patterns is flawed.*
* *That even though some behavioral impulses are, on average, stronger in men or women, it does not mean that EVERY man or woman will experience those stronger impulses.*
* *That environmental and social factors play a much larger role than most commonly assume.*
* *That as humans, we need not be slaves to our biology.*



Going forward, be warned: Our theories on arousal and aversion to various sexual stimuli incorporate the potentially offensive-to-some-groups assumption that men and women have non-socialized sexual impulses that appear at different rates across genders.

Warnings aside, what if socialization actually *reduces* male and female cognitive differences? When looking at how individual genes are transcribed in the human brain from the prenatal period through infancy, childhood, adolescence, and adulthood, some studies found signs that that human male and female brains are most different in our prenatal states, and that they gradually converge over time, showing fewer differences with age.

One collaboration among neuroscientists at Yale, Johns Hopkins, and the National Institute of Mental Health found that the biggest female/male differences in gene transcription in the human brain, for many genes, appear during the prenatal period (for example male-female differences in IGF2 transcription are *huge* in the prenatal period and nonexistent among adults). Other studies show this is not limited to transcription—that a similar shift takes pace with brain structure. To explore this research in greater depth, check out: “A meta-analysis of sex differences in human brain structure” in the journal: *Neuroscience & Biobehavioral Reviews*.

The finding that some of the differences in male and female brains are largest before birth makes people’s insistence that socialization accounts for every single one of these differences patently comical.

**Notes from the Research:**

While engaging in a serious deep dive of research on sexuality, one is bound to accidentally dredge up fun studies on gender differences between males and females that don’t fit anywhere specifically. Here are some uniquely fun findings you are more than welcome to skip should you want to keep on topic:

* A study conducted by Moriah Thomason scanned the brains of 118 fetuses and found that female brains in utero produce more “long-range” networks even before birth.
* McGill University researchers found that men experience pain more acutely if they have memories of the same pain in the past, whereas women do not—or do so significantly less. This is a unique problem in its association with chronic pain conditions and was able to be alleviated through memory blockers—drugs that can separate the association of a memory and an emotion.
* A 2018 paper in *Acta Psychologica* found men to be more than twice as likely to cooperate in game theory games when paired with other men, versus women when paired with other women.
* Increased blood flow in the limbic areas may account for women’s vulnerability to anxiety, depression, eating disorders, and insomnia.
* Brains of females have been found to be both more active than those of males—and active in more areas. For example, the prefrontal cortex, used in higher executive functions such as focus and impulse control, is more active in women. This likely contributes to the stereotype of women having more empathy, collaboration, self-control, and intuition.
* In women, the anterior cingulate cortex and insular cortex are larger and more active during social processing. When women process sexual stimuli, the anterior cingulate cortex tends to inhibit emotion, perhaps to prevent reactions until the stimulus has been properly investigated. The insular cortex and hippocampus are both involved in the storage and retrieval of emotional memories and are both larger and more active in women than in men.
* Even some behavioral impulses that seem socialized, such as caring for dolls, may be inbred. In one tribe of chimpanzees in Western Uganda, juveniles were observed using stones like dolls. Female chimps in this tribe were seen caring for these stones three or four times more often than males, and while female chimps typically treated these stones like babies, male chimps would be much rougher with the stones, appearing to have play fights with them. No female chimp was ever observed playing with a stone “doll” after having her first baby. Perhaps females evolved a behavioral set for caring for a newborn infant and, in the absence of an infant to care for, feed this instinct through care for dolls and stuffed animals.
* On the ever-juicy and controversial subject of whether men’s preference for hotness in women (over other positive features) and women’s preference for wealth in men (over other positive features) is socialized or if there is some aspect of it being “inbred”: Alice H. Eagly and Wendy Wood created an interpretation of David Buss’s data showing that in countries with more egalitarian gender relations, the male-female differences in hotness/wealth preferences across genders were smaller, which could suggest that this difference is socialized. Nevertheless, researchers Lingshan Zhang and Benedict Jones failed to replicate the results of the previous study when re-analyzing the exact same dataset with more modern analytical techniques. Instead, work from Richard Lippa in 2010 argued that: “gender differences in personality tend to be larger in gender-egalitarian societies than in gender-inegalitarian societies, a finding that contradicts social role theory but is consistent with evolutionary, attributional, and social comparison theories. In contrast, gender differences in interests appear to be consistent across cultures and over time, a finding that suggests possible biologic influences.” It would seem, then, that the body of evidence leans toward these preferences being biological, though the jury is still mostly out. We normally don’t “show our work” when explaining nuanced points like this, but we thought we would do so in this case, both because this is a uniquely controversial subject and to give our readers a peek into how tedious the book would be if we did.

# Things that Cause Arousal

If our sexual expression can be defined as follows:

What are these potential stimuli, and why are they tied to arousal? Let us explore some major categories in turn.

**The systems we will be exploring in order are:**

* **Breeding Targets:** Arousal patterns tied to systems meant to get our ancestors to have sex with things that might bear offspring (e.g., arousal from things like penises, the female form, etc.).
* **Inverse Systems:** Arousal patterns that arise from a neural mix-up, causing something that disgusts the majority of the population to arouse a small portion of it (e.g., arousal from things like being farted on, dead bodies, having insects poured on one’s face, etc.).
* **Emotional States and Concepts / Dominance and Submission:** Arousal patterns that stem from either emotional concepts (such as betrayal, transformation, being eaten, etc.) or dominance and submission pathways.
* **Emotional Connections to People:** While emotional connections do not cause arousal in and of themselves, they do lower the threshold for arousal (i.e., you may become more aroused by a moderately attractive person you love than a very attractive stranger).
* **Trope Attraction:** Arousal patterns that are enhanced through a target’s adherence to a specific trope (a nurse, a goth person, a cheerleader, etc.).
* **Novelty:** Arousal patterns tied to the novelty of a particular stimulus.
* **Pain and Asphyxiation:** Arousal patterns associated with or enhanced by pain and oxygen deprivation.
* **Basic Instincts:** Remnants of our pre-cognitive mating instincts running off of a “deeper” autopilot-like neurological system (dry humping, etc.) that compel mating behavior without necessarily generating a traditional feeling of arousal.
* **Physical Stimuli:** Arousal patterns derived from physical interaction (kissing, touching an erogenous zone, etc.).
* **Conditioned Responses:** Arousal patterns resulting from conditioning (arousal from shoes, doorknobs, etc.).

After exploring these systems, we will dive into a few that we originally assumed would affect arousal but—based on our data—ultimately found to have little connection to arousal patterns (like socialization and parental influence). Finally, we will do a deep dive into gender differences among these various pathways.

## Breeding Targets

The first and most obvious category of stimuli that can cause arousal is tied to the systems in our brain that are meant to detect things with which we can successfully breed. This category includes visual stimulation from human body parts, smells, sexualized poses, and sexualized movements. Experiencing stimuli in this category ranges from seeing perky breasts and thinking: “Young, fertile human female: Mate!” to hearing the grunt of a large, masculine figure lifting something heavy and thinking: “Strong, genetically fit male: Mate!”

The more differentiated something is between sexes, the stronger the signal, as those things serve as better indicators of a target’s sex. This is why breasts, butts, vaginas, and the female gate (caused by the sexually dimorphic female pelvic bone) are classically the most stimulating indicators observed in a female, while firm musculature, broad shoulders, large hands, penises, and a gravelly voice (caused by a sexually dimorphic larynx) are the most stimulating indicators observed in a male. In males, attraction to feminized features can be shown to increase after an injection of testosterone, showing our response to this signal being upregulated through hormones.[[15]](#footnote-15)

While the key elements of these systems evolved to detect breeding targets, many women are aroused by stimuli that indicate a target is female and many males are aroused by stimuli that indicate a target is male even though they cannot breed with these targets.

As we mentioned before, the model placing human sexuality on a slider ranging from “totally straight” to “bi” to “totally gay”—the Kinsey scale—presents a poor schema for understanding human sexuality. Our research suggests that while attractions to male-like characteristics and female-like characteristics are sometimes bundled, in a significant chunk of the population such attractions are not associated (e.g., it is fairly common to find a penis arousing, but the naked male form and gravely voices disgusting—or to find breasts arousing, but vaginas aversive).

In one alternate (though cumbersome) model, all the breeding-partner-detecting arousal systems could be broken down into their own categories, each with their own aversion or attraction modifier, and each with their own volume. For example, one person may define their sexuality as finding penises very arousing, breasts mildly arousing, rougher male skin mildly aversive, vaginas highly aversive, and deep, gravelly voices neither arousing nor aversive.

When we first started writing *The Pragmatist’s Guide to Sexuality,* we were pretty sure this model could be simplified. More specifically, we thought one could probably narrow arousal patterns down to four stimuli systems suggesting something is a potential breeding partner. Anecdotally, it seemed as though systems for detecting primary sex characteristics were clustered but divorced from the systems that detect secondary sex characteristics.

* **Primary Sex Characteristics** = Things used to breed (penis vs. vagina)
* **Secondary Sex Characteristics** = Sexually dimorphic characteristics that appear at puberty (i.e., feminine facial characteristics, breasts, hip sway, a masculine voice, etc.)

Our study yielded some supporting evidence for this. It seems to be very common for an individual to find female primary sex characteristics aversive, but female *secondary* sex characteristics arousing (i.e., to find the feminine form arousing, but a vagina gross). Our survey shows 30% of males and 32% of females who find the female form arousing find vaginas aversive.

Our research also suggests that in the average person, the secondary-sex-characteristic-detecting system has a much higher average “volume” than the system detecting primary sex characteristics. For example, the average guy will derive more arousal from a feminine form than from a vagina. From our survey: 89% of men rate the female form at the highest level of arousal generation while only 71% rate the vagina the same way. We find it in amusingly ironic that the organs used explicitly for reproduction cause less arousal on average than secondary sex characteristics.

We developed these theories before running our survey. While there are ways we can twist our survey data to fit them, as we did above, we must be honest and admit that our data really suggests that something more complicated is going on. For example, while around 30% of the males and females we surveyed who found the feminine form arousing also found the sight of a vagina a turn off, *not a single survey participant who found the male form arousing were simultaneously turned off by penises*. However, 26% of men who found the sight of a penis arousing simultaneously found the sight of the male form actively aversive.

What’s more, our assumption that secondary sex characteristics are all operating on the same system may be wrong, as 15% of the women who reported to find the female form arousing in our survey also reported to see breasts as an active turn off—and yet we don’t see this happening in males. It would seem that humans may have dozens of independent arousal systems, which may or may not cluster. Weirder still, some of the arousal systems seem to cluster in only one gender (for example, in men arousal from the female form and breasts are “tied together,” but in women, it is common to receive arousal from one and not the other).

*If this stuff is interesting to you, check out the supplemental chapter:* “Mammary Mountain and Phallus Peak*” on page 420. It goes into great detail the specific aspects of physiology that arouse males and females and how those arousal patterns relate to each other.*

Why does all this matter? An understanding of how these male-female detection systems actually work yields a much clearer vision of a person's real sexuality. There is a big difference between someone who has both systems turned off (and finds males and females disinteresting) and someone who has both systems in a negative state (and finds males and females icky). Given society’s current mainstream framework for understanding sexuality, we would call both of these people “asexual”[[16]](#footnote-16) despite their being just as different from each other as they are from someone who has both male and female attraction settings set to a positive state.

It is also possible for someone to receive a negative, “icky” impulse from both male and female stimuli but still receive a very strong arousal response from a separate set of cues, such as acting submissive, meaning it is entirely possible for someone to be technically “asexual,” but still have a high libido and really enjoy sexual activities tied to something like BDSM. We mention this as our data indicated that not being very turned on by naked men or women, but having a strong arousal response to certain concepts, is actually very common (oddly, this is especially true among women and men who see themselves as wealthy).

This perspective also makes it clear that the concept of being “gay” or “straight” is really more of a community identification and a description of shared experiences than it is a description of someone’s sexuality. As we mentioned earlier, “gay” is as much a description of an individual’s sexuality as “person of color” is a description of a person’s ethnicity. A woman who is not aroused by either males or females, but who is aroused by people with whom she feels emotionally close (an arousal pathway we will discuss shortly), and due to cultural circumstances only develops close emotional bonds to other women, has a totally different sexuality than a woman who has a strong sexual attraction to the female form and finds the male form repulsive—yet society would categorize both as “gay.”

### Why Do Gay People Exist?

Why do gay people still exist if their sexual expression does not increase their number of offspring or the survival rate of said offspring?

One idea that has been making the rounds posits that this question is ill-conceived. Called “the gay uncle hypothesis,” this hypothesis asserts that gay individuals increase the survival rates of their relatives’ offspring, even if they have fewer descendants themselves. While there is some data to support this hypothesis, it is extremely flimsy. We personally don’t buy this hypothesis because gayness exists frequently in non-social animals—heck, it is even observed in fruit flies. A gay fruit fly is not increasing the survival rate of its brothers' offspring.[[17]](#footnote-17)

Instead, there are a number of factors at play, all of which increase the probability of a person being gay, but none of which make it a foregone conclusion. Some of these factors are genetic; others are not. Think of it like height: Genes play some role, but so does a myriad of other factors, ranging from nutrition to in utero conditions.

Consider that every brother a man has born before him increases the odds that he will be born gay by 28% to 48%. This is an in utero effect. We know this because it still holds even when brothers are raised separately. Moreover, some studies have shown that gay men feature systematic differences in brain structure. Why does this happen? It probably has something to do with the maternal immune response to Neuroligin 4 Y-linked protein (NLGN4Y). NLGN4Y plays an important role in male brain development and mothers’ bodies get better at building antibodies that fight it with each new “infection” (pregnancy with a male offspring introduces chemicals to the female body that are identified as foreign). Eventually, this leads to later male births having statistically different neural pathways than earlier male births. This is a cool finding, as it is thoroughly backed up—there is even a study explicitly showing that mothers with gay sons have higher anti-NLGN4Y than mothers with heterosexual sons.

The fact that being gay in some males is tied to a maternal immune reaction to NLGN4Y suggests that being gay in at least this portion of gay males is not the same “kind” of neurological phenomenon as being gay in females. A mother would not produce an antibody to a female brain chemical or see it as foreign, and the stats don’t show that same correlation between same-gender siblings and female gayness. If being gay in males and females is a totally different neurological phenomenon, does it really make sense to rank them on the same Kinsey scale?

It seems likely that genes—along with other factors—play a role in gayness (genes may even play a role in the above mechanism, with some mothers having higher levels of anti-NLGN4Y). A giant study of around half a million people in the UK and the US across thirty institutions found that genetics explain about 25% of gayness.

So, if being gay is partially genetic, why did it evolve?

We are partial to the overdominance or sexual antagonism theories.

*Overdominance* takes place when a phenotype—the expression of a set of genes affecting an individual's physical appearance or behavior (in this case, gayness)—exists in a population despite its contributing no benefit to fecundity (the amount of surviving offspring an individual has) because an individual who has the same code, but in a small quantity, enjoys a significant advantage.

An easy-to-understand example of this can be seen with sickle cell anemia. Sickle cell anemia sucks, and it seems weird that certain populations of humans maintain the “code” that creates it in their DNA. However, it was evolutionarily worth it to preserve this dangerous code, because those born with one iteration of it also enjoyed protection against malaria. The populations of humans who preserved this dangerous DNA did so because their ancestors lived in areas with lots of malaria and it was “genetically worth it” for them to sometimes have a child die of sickle cell anemia so long as their other children had a resistance to malaria. We are clearly oversimplifying here, but this isn’t a book on genetics; we are just trying to convey the gist of a concept.

*Sexual antagonism* refers to genes that lower the chance of breeding in one sex but increase it in the other. Your genes don’t magically know whether you are going to be a boy or a girl (outside those in your Y chromosome and rare genes which detect your sex before being activated), so a genetic set that increases the number of children a girl has threefold—but means a boy will have no children—will still be passed on.

The current research seems to suggest that both overdominance and sexual antagonism are at play in the expression of gayness across species.

### The Fallacy of a Gay-Straight Spectrum

The gay-straight spectrum, a spectrum that presumes both males and females can be mapped on the same line based on how likely they are to be aroused by either males or females, is an artifact of a time when the concept of same-gender attraction was still a novelty and has no place in contemporary sexuality research or discussions. In addition to distorting the manner in which sexuality is investigated by forcing people into groupings incongruous with their underlying arousal patterns, the gay-straight spectrum fails to convey much about any individual’s arousal patterns beyond its demonstration that same-gender attraction exists.

The first clue indicating the spectrum does not represent real underlying patterns is that its existence implies men and women can be mapped on the same line, with a gay male being in the same spectrum “position” as a straight female. In practice, both gay and straight men tend to cluster around the extreme ends of the Kinsey scale, while women fall closer to the middle of the Kinsey scale (they are more likely to be attracted to both males *and* females—or at least not be actively grossed out by one gender in particular). In fact, research shows two-thirds of women show some level of arousal from pictures of both men and women. This is fairly rare in men.

Our survey showed similar results to the above-mentioned research: 83% of male respondents reported the male form to be aversive, with 59% finding it strongly aversive. Meanwhile, only 36% of our study’s female respondents reported finding the female form aversive, with only 15% finding it strongly aversive. The enormity of this disparity cannot be understated.

Were we dealing with a spectrum-based system that described male and female sexuality with equal accuracy, data taken from gay males would look similar to data taken from straight females—and yet this is not what we see in practice. Instead, the data associated with gay male sexuality presents a mirror image of data associated with straight males: Most gay men are as likely to find the *female* form aversive as straight men are likely to find the *male* form aversive. In gay females we observe a similar phenomenon, in which they mirror straight females instead of appearing in the same position on the spectrum as straight men—in other words, gay women are just as unlikely to find the *male* form aversive as straight females are to find the *female* form aversive.

Some of the research highlighting these trends has been conducted with technology like laser doppler imaging (LDI), which measures genital blood flow when individuals are presented with pornographic images. The findings can, therefore, not be written off as a product of men lying to hide middling positions on the Kinsey scale due to a higher social stigma against what is thought of in the vernacular as male bisexuality/pansexuality. We should, however, note that laser Doppler imaging systems are hardly perfect, especially when measuring arousal in females.

It is difficult to attribute these patterns to socialization, as they are observed across cultures and even within the earliest of gay communities that emerged in America, which had to overcome a huge amount of systemic oppression to exist. It’s a little crazy to argue that the socially oppressed sexuality of the early American gay community was largely a product of socialization given how much they had overcome just to come out.

If, however, one works off the assumptions of our model, this pattern makes perfect sense. There must be a stage in male brain development that determines which set of gendered stimuli is dominant, then applies a negative modifier to stimuli associated with other genders. This stage does not apparently take place during female sexual development. (We suspect this same system explains why it is common for males—but not females—to find things they are “supposed to” find gross arousing—more on this in the next chapter on page .)

This system must be pretty flimsy, as both men and women exist in positions all over the sexual attraction spectrum, but any theory of sexuality that cannot explain why men are either mostly straight or mostly gay across cultures—whereas women are more likely to hold positions closer to the center of the Kinsey scale—needs to be revisited.

What about the small portion of men who do rate themselves as aroused by both men *and* women? Actually, studies on such groups fuel our hypothesis that the spectrum-based system was misguided. For example, one study looked at the difference between men who rated themselves 5s (mostly gay) and 6s (totally gay) on a Kinsey scale. While 6s did not show any arousal when looking at gay female porn, the 5s did—BUT *both 5s and 6s showed the same level of arousal when presented with male stimuli.*

In other words the majority of men who are 5s on the Kinsey spectrum are no less attracted to men than men who are 6s. Instead, what differentiates these men is the presence of an entirely different, *additive* arousal system. The majority of males who fall in the middle of the Kinsey scale aren’t “half gay and half straight,” but could be seen as “100% gay and 100% straight.”[[18]](#footnote-18) The systems of attraction to each gender, when both active in a male, are normally not in competition with each other, but rather additive.

**There are two final points we need to emphasize before we move on:**

**1) It is very difficult for some people to empathize with what it feels like to find one gender aversive.** Specifically, people who do not experience aversion systems tied to any gender find it difficult to understand what it feels like to be grossed out by the idea of being intimate with a particular gender. If you do not experience an aversive reaction with any of your gender detection systems, try to think about a system you have that *does* yield an aversive reaction in you, but that others find sexually arousing.

Perhaps you find the idea of having sex with a 98-year-old aversive. That emotion you feel when you think about sex with a 98-year-old is the same emotion some people feel when they think about sleeping with someone of a specific gender. Telling someone to “just get over it” is as nuts as them telling you to get over your aversion to sleeping with a 98-year-old. Sexual aversion is an incredibly powerful emotion.

On a related note: Homophobia rates are statistically much higher in individuals with very low libidos. We suspect this is true for the same reason some pansexual[[19]](#footnote-19) people cannot understand what it is like to find one gender aversive. If you are a person who is not terribly aroused by anything, it is much harder to empathize with just how strongly others can experience sexual impulses. Given this, we imagine transphobia is likely highest not among those who are strongly attached to the sex they were assigned at birth, but those with little attachment to any gender, as they cannot empathize with what such an attachment feels like. (Our survey showed 14.5% of people fall into this category—more on this soon.)

**2) Just because someone’s gender-detecting systems are not active—or just because both are turned to negative—does not mean they do not experience sexual arousal when exposed to other stimuli.** We know people who would be considered completely asexual when it comes to their gender attraction systems but who become incredibly aroused by submission and humiliation. Honestly, what gender you find more stimulating is a very small part of overall human sexuality, and it is fairly ridiculous that we as a society focus so much on it.

**Notes from the Research:**

* Do sex hormones play a role in being queer (gay, bisexual, pansexual, etc.)?Queer women possess significantly higher levels of cortisol—a hormone regulating the response to environmental stressors—while queer men who display lower-than-average cortisol levels. One could argue this is due to living harder lives (an argument bolstered from data including black queer individuals), but queer women also boast higher testosterone and progesterone concentrations than average, whereas this difference has not been observed in men. In other words, sex hormones are probably related to the genders one finds attractive, but the power of this effect is uncertain.
* Theory: In *The Pragmatist’s Guide to Relationships*, we discuss how being polyamorous and sleeping with multiple partners typically increases testosterone in men, which contributes to lower body fat and more muscle. Could higher testosterone in men with several concurrent sexual partners be the source of stereotypes framing gay men as more fit/muscular than straight men, seeing as folks might be more likely to identify gay men as gay if they have several sexual partners at any given time?
* Polls show that lesbians who doubt a woman’s attraction to both women and men are generally assuming she is really just straight, whereas gay men who doubt a man’s attraction to men and women typically assume he is really just gay. It is weird that both assume that people of their same gender who are attracted to both men and women are really more attracted to men. It is also interesting that, as offensive as this stereotype is, it has an element of truth to it—for men at least (not that we don’t see this pattern in women, but the specific study we are referring to only looked at men). Around 49% of men who identify as gay identified as the variant of bisexual attracted to at least men and women before they identified as gay. This phenomenon is known as “transitional bisexuality.” When arousal patterns of this group of gay men were tested against those who identified as gay immediately, it was found they had the exact same arousal patterns as the group that had never identified as bisexual. That said, we need to be super-duper clear here that ***the accusation there is no such thing as a man who is attracted to both men and women has been repeatedly disproven***.Some reviewers were confused as to why we made this point so forcefully: There is a common myth that, because some people attracted to both men and women are in a state of “transitional bisexuality” or engaged in “performative bisexuality” (pretending to be attracted to both men and women to secure higher quality partners of the opposite gender—e.g., a straight girl kissing another girl on the dance floor), this means that simultaneous attraction to men and women is not really a thing, which is just stupid. There are absolutely people who are attracted to both men and women.

### Sexual Aversion, Looking Under the Hood

Human sexual expression is just as much a tapestry of the things that turn us *off* as it is a representation of things that turn us *on*. When exploring a specific kink or theme in erotic art, we must investigate both attractions *and* aversions that may have inspired it.

For example, in our survey 66% of men reported consuming erotic material focused on two women having sex and 21% of women consumed erotic material focused on two men having sex. Erotic art focused on same-gender relationships is very popular among straight communities across cultures and in a huge variety of forms, from Yaoi Dōjinshi to A/B/O, MPreg, and more vanilla “hot girl-on-girl action.” It is easy to look at the commonality of this category of erotic art and assume that we are seeing this trend because a large portion of the population finds gays to be uniquely hot or that the consumption is driven by a desire to see more people of a specific gender in erotic material (i.e., if one girl is good, then two girls is better). While this is likely the case for a portion of this population, there are other reasons a person might consume porn featuring same gender relations.

This same interest in sexually-homogenous erotic art subjects would emerge if, instead of finding gays hot, a portion of both men and women were highly turned off by seeing people of their own gender naked or in a sexual context. And wouldn’t you know it . . . that is *exactly* what we see. Better yet, we see this sexual expression more in men than women, and we see a stronger trend of opposite-gender-having-sex pornography consumption in men than in women. If a man finds the naked male form repulsive, he will be as disgusted by seeing a man in his porn as someone else may be by seeing a dog in theirs. If such a man wants to masturbate to two people having sex, his only option may be gay porn—well, *maybe*.

Futa porn (futanari), in which one of the participants has breasts and a feminine body but also a penis, presents a similar phenomenon. Remember that 26% of men who are reportedly aroused by the sight of a penis also report finding the male form actively aversive. It is likely that portion of those who consume futa porn are simply looking for porn in which they can see penis-in-vagina sex without having to see the naked male form because they find males sexually repulsive. A female mirror to futa occurs in a portion of females who consume MPreg literature, which presents a class of males capable of getting pregnant. MPreg scenarios are great for women who, while aroused by romance and impregnation, find the concept of other females in their fantasies to be aversive.

As with all sexual predilections, there is more than one underlying “sexual genotype” that can result in the same “sexual phenotype.” Two individuals may love MPreg scenarios but have a totally different underling sexuality. So just because you like gay porn because you find gay sex uniquely hot that does not preclude another person from liking it because they are repulsed by the gender not featured in it. Isolating exactly what is motivating the consumption of certain types of erotic material in varying percentages of the population is critical in getting a clear picture of human sexuality.

This is all to hammer home two often-overlooked points:

1. When trying to understand why an individual is consuming one type of erotic material over another, or why they would like to try one “kink” over another, we should focus as much on what is turning them *off* as what is turning them *on*.
2. Two individuals can have identical tastes in pornography, partners, and kinks, yet have fundamentally different sexualities motivated by different arousal patterns.

### Categorization and Volume Systems

When we first started playing around with the idea that sexuality did not exist on spectrums and was instead comprised of discrete volume systems, we figured the concept was indulgently iconoclastic. Given how much sexuality affects our daily lives, we imagined society would have noticed by now if sexuality does not indeed exist on a spectrum. Thus, we were shocked by how much our survey results neatly supported the idea that sexuality is not comprised of a collection of spectrums.

You may wonder why we thought to question the orthodoxy of the spectrum arousal system even before we had our data.

Our first clue was that, even though they are common in electronics, “spectrum-based systems” are extremely unusual in nature and human psychology. While one may find a spectrum of activation of a system (e.g., a person may have a system that can be half turned on), such as the autistic spectrum or the schizophrenia spectrum, a system specifically designed to detect things along a spectrum that can then be set to any level within the spectrum upon birth is extremely weird from an evolutionary perspective, (as the gay-straight spectrum system reportedly operates).

How do these neurological systems actually work? The most common system and the type of system we think is at play in human sexuality is what we will call the “Categorization and Volume System,” which is designed to “categorize” an environmental stimulus (e.g., blue spotting patterns on an egg or something that looks like a snake) then determine an appropriate volume and impulse based on the category of stimuli (e.g., the impulse to sit on the egg or the impulse to run away). The impulse created by these systems appears at different volumes depending on what category the stimuli is placed under and the amount of the stimuli detected in the environment because they function at the same time as other systems (like the one for sitting on an egg firing at the same time as the one for running from snakes). These volumes exist as a shorthand so organisms know which impulse takes priority.

Individuals that fail to assign optimal volumes to a stimuli die at a higher frequency. For example, birds who keep sitting on their eggs despite identifying the approach of a predator may die at higher frequencies than those who abandon their nests to flee predators, thereby surviving to reproduce again. This lowers the average volume of the “eggs -> sit” system or increases the average volume of the “snake-> run” system.

Let’s consider a human example of how evolution impacts Categorization and Volume Systems. Our brains have a system that (1) categorizes a smell as the smell of a rotting corpse as opposed to a freshly killed animal and (2) drives us to get away from the meat. If this system is broken in a human, they are much more likely to see a rotting animal as a source of food, eat it, then die and fail to pass on their genes.

These systems are common because they are extremely easy to neurally program over evolutionary time. It is very common with genetic mixing for an organism to end up with more or less of a piece of “code.” If an organism is missing some of the “code” for a Categorization and Volume System, it will usually still function fine—just at a lower volume—and if the code is accidentally duplicated a number of times, it will still function fine—just at a higher volume. (This is extremely simplified—especially in the context of cognitive proclivities.)

In contrast, spectrums actually represent two systems overlaid on top of each other: One system delineating the code for the spectrum and another delineating the number that determines a person's place on the spectrum. If a person is missing some of this code or experiences changes in some of a spectrum’s code, it often simply stops working altogether. It’s the difference between a system that operates based on piles and one that operates based on sliders. It is a lot harder to “break” a pile by mixing around the positions of its component pieces.

There is no reason a fragile slider system would evolve to manage a task as important as breeding when a volume, pile, based system is an option. To put it another way, slider-based systems require all the code for the system to “kind of” work. Slider-based systems rely on evolution only moving a person's position on the slider and not touching the rest of the code, whereas in a volume-based system, the strength of an impulse in reaction to a certain stimulus can be increased by sloppily copying code a few times and decreased by sloppily breaking the code.

### The Nature of Asexuality

We would be remiss were we to exclude asexuals—those who do not report a desire to have sex with either males or females—from our discussion of breeding target arousal. Surprisingly, it would be wrong to say that asexuals are defined by categorically not finding either males or females arousing.

At least on average, studies have shown what makes the average woman who identifies as asexual unique is not that she does not feel arousal, but rather that said arousal does not have an emotional impact on her or make her want to have sex. Asexual women, on average, generally show the same genital arousal patterns as any other female when shown pornography. What is different about female asexuals is that this arousal pattern does not generate sexual impulses. As determined by monitoring their emotional states as they watched porn, this lack of a “have sex” impulse among asexual women does not appear to stem from any fear of or discomfort with sex (or at least any more than the average woman). This implies that the majority of asexual women are not asexual out of some hatred toward or fear of sex, but rather asexual due to a general indifference toward it.[[20]](#footnote-20) (Apologies: We did not find much research on asexual men.)

If you have trouble imagining what this feels like, imagine seeing something arousing then having your genitals engorge with blood and feeling a positive sensation, but having no impulse to do anything about the situation. More of a “Hmmm, neat. Now, what was I doing again?” reaction.

The nuanced nature of asexuality in women—not necessarily being defined by a lack of arousal—is yet another reason to throw out the idea that an individual's sexuality is largely defined by a spectrum of attraction to either males or females. If we go back to the idea of “responsive desire” versus “spontaneous desire,” the average female asexual can be thought of as someone with an extremely high “responsive desire” system if this data is correct.

Are we saying that the average asexual is still aroused by things and engages in sexual acts? Absolutely. A whopping 56% of asexuals masturbate at least monthly (contrasted with 82% of sexual people) and 60% report having sexual fantasies (contrasted with 98% of sexual people). Asexual people may merely have more expansive concepts of sexuality, seeing as 11% of asexuals with sexual fantasies had fantasies that did not include other people (contrasted with 0.5% of sexual people).

The developmental processes that make people asexual seem related to those which make people gay. Why do we say that? Asexuals are more likely to be left-handed at similar rates to both gay men and lesbians (who are also more likely to be left-handed). In addition, asexuals are more likely to be born later within a group of siblings—just like gay men. That asexuality and being gay have the same weird correlations to some seemingly unrelated factors leads us to hypothesize that the developmental pathway that leads to each state is connected in some way. This may seem obvious, but there was a possibility that asexuality could have been a totally unique phenomenon instigated by a totally unique developmental pathway.

### Supernormal Stimuli, Group Sex, and Gender

There are many cases in which our gender detection systems respond to supernormal stimulation (stimulation beyond what one would receive in nature). Common examples of porn / erotic art exploiting this mental glitch can be seen with bakunyū / hyperboobs (breast inflation) and bukkake (experiencing sexual arousal when seeing someone covered in more cum than one human could produce)[[21]](#footnote-21).

Giant porn also stimulates systems to supernormal stimuli (though giant porn might also be tapping into dominance-submission attractions). We can't help but find this kink comical in its simplicity if it turns out to act as a generic supernormal stimulus. It would mean someone's brain is literally going: “Well if I like women, then a girl 100 times the size of a normal girl is *100 times more woman* and therefore better!”

Speaking of supernormal stimuli: You might be surprised to learn that the common trope of men wanting sex with as many women as possible in a given moment is not actually accurate. One study showed only one-third of men have fantasized about a threesome. In our study, 45% of female respondents—and only 48% of male respondents—reported fantasizing about a threesome. In general, group sex is not as common as you may assume, with only 8% of straight women, 15% of straight men, 16% of non-straight women, and 25% of non-straight men reporting past group sex. Interestingly, straight women generally reported group sex experiences to be less positive than any of the other groups. Much to nobody’s surprise, women generally want threesomes to be male-male-female, whereas men want it to be female-female-male.

### The Nuanced Female Detection System

The “breeding target” systems that evolved to detect females optimized for targets that were both (1) female (and therefore capable of producing offspring) and (2) young and (and therefore more likely to be fertile). This puts the feminine form in an interesting position when it comes to attracting sexual partners, as signs of female anatomical dimorphism are often at odds with signs of youth—from smaller breasts to a smaller waist-to-hip ratio. The result is an internal fight within these systems between “probably female” and “probably young.”

The arousal system used to identify optimally fertile female breeding targets ultimately creates a wide range of preferences in body types for women, some of which de-emphasize sexually dimorphic features. Collective research findings currently appear to indicate that “probably female” features are more popular among less wealthy individuals while “probably young” features are more coveted by wealthier individuals. Our survey’s data on wealthy male and female respondents who reported females arousing backs this up (we go into our stats on how wealth affects arousal in detail in the “High-Net-Worth Extravaganza” supplement chapter on page ).

### Genital Size

Though research can be mixed when the audience’s socioeconomic status is factored in, larger breasts on women generally appear to be popular. A study in France used a padded bra to test how often men would approach the same researcher with an A cup, B cup, and C cup when she was at a bar. When sporting C cup breasts, the researcher was approached by 56% of participants (versus only 26% of the time when wearing the B cup padded bra and 17% of the time when wearing the A cup bra). However, one of the “probably young” features hinted at above is that both wealthier men and women find women with smaller breasts more attractive (this has been found both in a breakdown of data from dating websites and from our own data).

Both men and women appear to appreciate larger-than-average penises, though it may be that men care more about penis size than women. One study found that while 15% of women are dissatisfied with their partner's penis size, a whopping 45% of men are dissatisfied with their own penis size. A different study found that only 0.2% of men wish they had *smaller* penises, while 9% of women wish they had smaller breasts. We do a breakdown of penis size and breast size preference by ethnicity in the “Mammary Mountain and Phallus Peak” supplement chapter on page , which—not to toot our own horn or anything—is pretty interesting.

### What's up with Foot Kinks?

We hypothesize that a foot kink is really just a normal attraction to a sexually dimorphic part of the human body. “Foot guys” probably exist right alongside “butt guys” and “boob guys,” as all three are just different parts of the human body that are sexually dimorphic. One can even probably find a supernormal stimulus manifestation of foot kinks in the ancient Chinese tradition of foot binding (i.e., if having small feet means female, then feet the size of a plumb must be *extra* female). Society just happens to view people with foot kinks as odd because they are less common than arousal patterns surrounding *other* gendered body parts like butts or breasts.

Some researchers hypothesize that foot kinks actually represent an entirely different type of attraction caused by accidental crosstalk between parts of the brain that process foot-related and sex-related stimuli. Essentially, the part of our brain where we map the sensory stimuli that we think other people experience when touched on their feet is near the part of our brain that processes arousal. Some people think that stimulation bleeds over between physically adjacent parts of our brain in some people (we discuss crosstalk as a concept in more detail early in this book’s “Emotional States and Concepts / Dominance and Submission” subchapter on page). Suffice to say, we do not think crosstalk is the driver of foot kinks as the pattern of appearance and age of onset for foot kinks matches fixation on other sexually dimorphic body parts too closely for our pet theory to be a mere coincidence.

Some research found the level of attention to feet in a given society appears to correlate with the level of STDs in that market, with foot kinks flaring during the AIDS epidemic of the 80s, the gonorrhea epidemic of 12th century Europe, and the syphilis epidemics in 16th and 19th century Europe. That said, we think this research is bunk. While we could see that people might be pressed into finding something far away from the disease-spreading orifices and mucus membranes to sexually stimulate themselves during times of high sex-borne illness, we fail to see how humans would be able to instinctually determine the level of sex-borne illness in a population. The trigger is way too complicated to have evolved such a nuanced response . . . unless humans release some sort of pheromone when they are sick with certain types of illnesses—like some types of plants and animals do—and people's sexuality patterns change when enough of the pheromone is in their environment. Were this the case, given the prevalence of AIDs, we wouldn’t have expected to see such a shift during the AIDs epidemic.

## Inverse Systems

Onward we venture to the second major source of arousal!

In a portion of the population, some stimuli that are “supposed” to elicit an aversive reaction elicit an arousal reaction instead. It appears that a negative modifier is getting swapped with a positive during some stage of this group’s development. We call this an “inverse arousal system.”

Do you get turned on by poo, dead bodies, the idea of sex with a sibling, getting farted on, being covered in goo, sex with a geriatric patient, or being covered in insects? If so, you have an inverse arousal pathway active in your brain. All of these things are supposed to cause a strong disgust reaction, but somehow in you a “-” was switched with a “+” and something you were “supposed” to find disgusting instead turns you on.

The arousal impulse we feel when interacting with something with which we want to breed begins to develop around the age of puberty. However, some individuals report feeling strong impulses long before puberty. After puberty hits, these individuals begin to realize these feelings were sexual in nature. These prepubescent impulses tend to be associated with the two pathways: The inverse systems pathway, discussed in this chapter, and the emotions pathway, which we will discuss in the subsequent chapter. By looking at a person’s age when an arousal pattern first appears, you can tell which pathway it utilizes.

The inverse pathway is not socialized. You do not get turned on by getting covered in insects (formicophilia) because society told you were supposed to. There are three core pieces of evidence for this:

1. The types of things that activate the inverse pathway are just not the sorts of things society glorifies or sexualizes.
2. The pathway appears way too early to be influenced by socialization. Arousal impulses in this category are typically first noticed when a person is a toddler (people realize this in hindsight—obviously, people don’t understand such things to be arousing until after they go through puberty and have more points of comparison).
3. They are highly gendered in their appearance, appearing much more frequently in men. You would expect slightly more gender equity in the appearance of these arousal impulses if they were socialized or about breaking society's rules (women get turned on by all sorts of rule-breaky things—just not *these* rule-breaky things).

If we don’t “learn” these arousal impulses and if they do not boost our odds of reproducing, where on earth do they come from?

**Evolution is a cheap programmer when it comes to behavior. Evolutionary forces often hijack or piggyback on systems that were originally evolved in reaction to some other evolutionary pressure.** Unfortunately for us humans, it looks like our sexuality is affected by evolutionary frugality and the same neural pathway fires when we experience aversion in sexual *and* non-sexual contexts. This results in our experiencing the same “ick” reaction when imagining an encounter with centenarians having sex that we feel when we fall face first into a pile of dog poop.

While we covered this a bit already, it is worth going over again: The aversion system in humans is literally the exact same system as the arousal system. It just uses a negative modifier.

Think about it, you walk into a room and see a rotting corpse. How does your body instinctively respond?

* You look away
* Your pupils contract
* You either hold your breath or hold your nose
* You try to get out of the room as soon as possible
* You have a strong impulse to not interact with the thing

Now suppose you see a hot person when you walk in a room. This time:

* You look at them as much as social conventions allow
* Your pupils dilate
* You might inhale deeply
* You look for excuses to stay around
* You have an impulse to interact with them

These two systems aren’t just eerily similar; they are *the same system*. The fact that this aversion pathway sometimes breaks in a way that causes strong arousal is proof of that in our minds. There is no other good explanation for why inverse arousal pathways appear before puberty, are heavily gendered, or really exist at all—but more on those three points ahead.

It makes a lot of sense that these two systems would be operating off the same code. Of all the categorization and volume systems animals have, the two (not tied to eating) that would have evolved earliest are:

1. The one that tells an animal to mate with something, and
2. The one that tells an animal that if it stays in an area with something, it may become ill.

The brains in which these systems evolved to work would have been simple in the extreme. If evolution could have found a way to program these systems with the same “code,” it would have. In the same way the original Mario games used the same image file for both bushes and clouds to save space because old cartridges had so little memory, when our brains operated in simple worm-like creatures, evolution decided to use the same system for arousal and aversion.

Sometimes part of the “code” that is supposed to find something aversive gets switched with the impulse to find it sexually attractive. Essentially, a (-) gets swapped with a (+) in a small portion of the population. This explains why people who have impulses tied to these things report feeling them before puberty. Systems like the one that keeps you from playing with fecal matter or rotting corpses are meant to be in an “ON” state from birth and not switch into an “ON” state at puberty, as those things are *always* a threat.

**Note from the Research:**

* An attraction to dead bodies motivates only 15% of necrophilia cases.

Inverse pathways leading to arousal are less common in women. We think this gives us a hint as to the source of this switch. Men tend to cluster along the far ends of gay-straight spectrum scales, whereas women do not (a gay man is more likely to be grossed out by the idea of sleeping with a woman than a gay woman is a man, plus a straight man is more likely to be grossed out by the idea of sleeping with a man than a straight woman is a woman). In men, there is some sort of neurological system designed to “flip” +s to -s that is not commonly present in women. We suspect this sign-flipping mechanism sometimes flips random +s and -s in roughly 15% of the male population and 5% of the female population, causing these individuals to become aroused by one or two random things that evolved to gross them out at a volume equal to what was supposed to have been output in disgust (this same switch also has the potential to cause someone to become disgusted by something that is “supposed” to arouse them).

Why would there have been stronger pressure on men to develop this system? Consider that if a man is sleeping with ten random people he finds attractive every couple of months, the fact that three of them just happen to be men is going to affect the number of children he has far more than a woman sleeping with ten random people every couple months, three of which just happen to be women. It appears that men addressed this greater potential for loss by developing some system that recognizes their gender of primary attraction, then flips the switches associated with the other gender to negatives early in childhood. The system, however, can be a bit faulty: Sometimes it flips the wrong switches and whatever process developmentally flips arousal to aversion is identical to the process for flipping aversion to arousal.

In short, many things you find gross at an instinctual level—usually from childhood—will turn on a small portion of the population; however, this is not true for other emotional states. For example, just because you have an instinctual fear of something does not mean a portion of the population finds that thing hot. While there are not large populations that get turned on by things like fire or heights, there *are* large populations that feel turned on by things like having insects poured on their face, being farted on, or being covered in slime.

### Zoophiles

One kink group that may be tied to inverse systems (due to its overrepresentation in males and early age of onset) is zoophilia/bestiality. Both of these communities are aroused by the idea of sex with animals and both are surprisingly common. Kinsey’s study back in 1948 found 8% of men and 3% of women had had sex with an animal, but with time these numbers have dropped, with more recent studies showing them at around 5% and 2% respectively (likely a product of lower access to animals in a more urban society). These numbers are fascinating when contrasted with our survey results, which suggested that only 6% of males and 2% of females are aroused by the idea of sex with an animal.

If the data is accurate, this indicates around 87% of people who are aroused by the idea of sex with an animal have tried it. This suggests the impulse must be incredibly strong in the portion of the population that experiences it, lending support to our theory that volume modifiers are developmentally separated from the +/- signs. The volume of the disgust generated by the idea of having sex with an animal is super high in the average person, so the arousal generated by the idea would be equally high to someone turned on by it—high enough to override the moral aversion in almost every individual who experiences this arousal pattern.

As is the case with many kinks, zoophilia and bestiality seem to be combining a few pathways. Interviews with zoophiles often cite an attraction to animal genitalia due to their novelty (specifically, in one survey, they said this attraction stemmed from the genitals being smellier, wetter, and harrier). Individuals aroused by this aspect of zoophilia and bestiality are likely being turned on by an inverse pathway that would normally create an aversion impulse at the thought of sex with something that was smellier, wetter, harrier, and well . . . not human. However, not all zoophiles are experiencing the same pathway tweaks; some are likely exercising a sub-dom arousal pathway and others still seem aroused by the idea of sex without fear of judgment.

**Notes from the Research:**

* Most zoophiles are specifically aroused by the idea of sex with dogs or horses. We suspect this may just be due to the high availability of dogs and large genitals of horses combined with their moderate availability.
* One study on the subject found the average zoophile has sex with an animal two or three times a week.
* 72% of zoophiles responding to one study reported to not see anything wrong with what they were doing and 80% claimed that they believed the animals had offered them consent. *As much as we have an impulse to condemn such acts as* *inconceivably reprehensible and remind our readers that animals cannot give consent, we would be hypocrites to do so as people who love to eat veal, enjoy a fresh glass of factory-farmed milk, and delight in playing with adorable dog breeds whose unique features are the product of forced sex between dogs. It is critical that we not shield ourselves from condemnation just because the way* we *lead animals to be tortured and forced to have sex is socially condoned. (But seriously, animals cannot consent.)*

While we are on the topic, we would be remiss to not mention a bizarre website that used to exist in the early 2000s, which featured an excruciatingly detailed guide for having sex with dolphins. It went through everything from where to buy a house and how to get to a location where dolphins congregate to how to sexually engage them. What makes it crazier is that dolphins have a prehensile penis (i.e., their penises are like an elephant's trunk), which could easily kill a person should they fail to execute every aspect of the courtship perfectly. The thought of a person who bought a house near a specific cove just so they could try to have sex with dolphins presents a splendid summation of just how far people will go to satisfy atypical sexual impulses that are very likely to get them killed. Humans are utterly bizarre.

## Emotional States & Concepts / Dominance & Submission

Now to the arousal pathway we personally find most interesting: The pathway tied to emotional states and concepts—dominance and submission among them.

Emotional states and concepts can yield sexual arousal, but unlike the previous pathways we have discussed, emotional states and concepts can begin to cause arousal at any point in a person's life, sometimes appearing before adolescence and other times appearing in adulthood. (As a refresher: Breeding target pathways almost always appear around puberty and inverse pathways almost always appear very early in life.)

The concepts and emotional states that ultimately trigger arousal appear to only be those which are most deeply programmed into us—those which would have been extremely relevant to humans in our early most stages of social evolution, when humans were tribal animals. Specifically, the emotional states most likely to be looped in with sexual arousal are associated with concepts such as: Submission, domination, anticipation, usefulness, betrayal, trust violation, the ability to impose an emotional state on another, rape, worthlessness, helplessness, being hunted/hunting, humiliation, feeding another, freedom/slavery/servitude, impregnation, surrender, dependency, being depended upon, gift exchange, subjugation, killing, being consumed, and predator-prey relationships.

In contrast, evolutionarily recent emotions and concepts, such as schadenfreude, war, driving, or the feeling you get from reading a good book, are rarely seen to be associated with sexual arousal. Something about these very early concepts and emotions, which played such an important role in our survival as a social species, got tied to arousal states in a portion of the human population.

The current go-to theory on this is that neural crosstalk plays a significant role in the connection between emotions, concepts, and arousal. Have you ever had the audio cord that connected to a speaker system get too close to a power cord, leaving you annoyed by the random noises that resulted? Essentially, this hypothesis claims something similar is happening when a person gets aroused by this category of stimuli.

The part of our brain that creates arousal impulses is nested between parts for social processing and the part of our brain for processing stimuli related to feet (this is unusually large in our brains, presumably because it was important back when our feet were used to grab branches). Many theorize that in a portion of the population, there is crosstalk between these older social parts of our brain and parts associated with sexual arousal. Essentially, a bunch of neural activity in one area could cause neural activation in adjacent areas or lower the threshold for activation in those areas.

We suspect that brain overlap theory is partially correct—or at least that it explains a small portion of cases in which a social concept arouses an individual. We do not, however, believe that brain overlap is the primary driver of conceptual arousal. If it were, we would expect a more even distribution of emotional concepts that arouse people, and this is not what we see in practice. Instead, emotional states that can be framed in the context of dominance and submission are far more likely to be tied to arousal pathways. Even more damning to this theory is the gendered nature of these pathways—something that is unexplainable by crosstalk alone as these parts of the brain are in the same locations and are roughly the same size in both males and females.

The role of dominance and submission in human sexuality cannot be overstated. Our survey suggests that the *majority*(over 50%) of humans are very aroused by either acting out or witnessing dominance or submission. But it gets crazier than that: While 45% of women taking our survey said they found the naked male form to be very arousing and 48% said they found the sight of a penis to very arousing, *a heftier 53%* said they found their partner acting dominant in a sexual context to be very arousing. **Dominance is literally more likely to be very arousing to the average female than naked men or penises.** To say: “Dominance and submission are tied to human arousal patterns” is more of an understatement than saying: “Penises are tied to human arousal patterns.”

We have a delectable theory about what is going on here: If you look at all the emotional states that frequently get tied to arousal pathways, the vast majority of them seem to be proxies for behaviors that would have been associated with our pre-human ancestors’ and early humans’ dominance and submission displays. For example, things like humiliation, being taken advantage of, chains, being used, being useful, being constrained, a lack of freedom, being prey, and a lack of free will may all have been concepts and emotions important in early human submission displays.

We posit that most of the time when a human is turned on by a strange emotional concept—being bound for instance—their brain is just using that concept as a proxy for a pre-human submission display and lighting up the neural pathways associated with it, creating a situation in which it looks like a large number of random emotional states are turning humans on, when in reality they all boil down to just a fuzzy outline of dominance and submission. Heck, speaking of binding as a submission display, there were similar ritualized submission displays in the early middle ages, in which a vassal would present their hands clasped in front of their lord and allow the lord to hold their clasped hands in a way that rendered them unable to unclasp them (this submission display to one’s lord is where the symbolism of the Christian kneeling and hands together during prayer ritual comes from). We suspect the concept of binding and defenselessness have played important roles in human submission displays well into pre-history. Should all this be the case, why on earth have our brains been hardwired to bind (hehe) our recognition of dominance and submission displays to our sexual arousal systems?!?

**Dominance and submission displays are near universal in social animals. Sociality doesn’t really work in intelligent species when a tribe doesn’t know which members’ preferences take precedence or if they have to fight every time there is a difference of opinion. When our ancestors first evolved sociality, the brain had to find a way to motivate these social-order-facilitating dominance and submission displays. It is not crazy to think the brain used arousal to motivate these displays instead of a more generic reward pathway, given how close the part of our brain that judges our position in a social hierarchy is to our arousal centers.** Further, if we assume that evolution was using arousal to reward dominance and submission displays, we doubt it had enough evolutionary time or incentive to quarantine this connection to only dominance and submission instead of associated concepts like predator-prey relationships, humiliation, and bondage. This would explain why there is such a range of dominance or submission associated concepts that arouse people.

There was likely another reason why evolution “chose” the arousal pathway to motivate dominance displays instead of a “more appropriate” reward pathway. **When our pre-social ancestors were first evolving submission displays and needed a system to motivate complex behavioral displays, they likely already had one: The system used for mating displays** (think of a bird dancing about and chirping in order to show another bird how great his genes are). Given its proximity to the act of sex, it makes sense that the mating display system would be using arousal pathways to motivate it and encourage action when it was detected in others.

It would have been much “cheaper” to just make some tweaks in the mating display system instead of building a whole new system from scratch—and since evolution is a cheap programmer, **it would be odd for evolution to not borrow pieces of the existing mating display system to build the dominance display system**. We are therefore willing to bet this cheap programming, as it were, explains why the majority of humans experience arousal when performing or witnessing dominance and submission displays.

**A similar pattern can be observed in all sorts of social mammals: The same behavior used to show one is ready for sex is also used as a submission display.** In most of these species, the way a female signals she is ready to be mated with involves a set of displays very similar to the ones that show submission to a more dominant tribe member. Heck, among many animals, all the nuance is taken out of it, and one individual, male or female, will simply mount another to show it is dominant while another—male or female—will prepare themselves to be mounted to show they are submissive.

Some species are strictly matriarchal, such as the spotted Hyena. Instead of adopting a behavior that mocks a female being ready to be engaged in sex as a submission display, such species mock a male being ready for sex as a submission display—with an aroused penis being a sign of submission in spotted hyenas in both males and females (females of this species have something called a pseudo-penis, hence this being possible). Long story short: The connection between dominance and submission and arousal is not a “human thing;” it is a “most social mammals” thing.

People often think of dominance and mating displays as sets of actions and not concepts; however, many animals’ mating displays are inherently conceptual. Think of the bird that brings a “gift” to a potential mate to show how good it is at procuring things. This is a conceptual display in the sense that the female must judge the quality of the gift. If a mating display system were to be hijacked to create human dominance and submission displays, those displays could easily be conceptual. Behaviors such as bowing, turning our heads to the side to expose our necks, and clasping our hands together are pretty clear instinctual *actions* showing submission in humans (likely to make ourselves look smaller or expose vulnerable regions of our bodies), but there are also *concepts* that can signal dominance or submission such as humiliation, bondage, control, chains, and slavery.

To see why concepts like dominance and submission that seem silly in modern human culture were so critical to our early ancestors, take a step back from what dominance and submission mean in the context of BDSM and our *current* culture and consider what dominance and submission meant to our ancestors.

For the sake of argument, let's use chimpanzees as a proxy for our early social ancestors. Almost no cognitive ability affects a chimpanzee’s survival more than its ability to understand its position within a tribe’s social hierarchy and signal that it understands its position to other members of its group. A chimp who cannot understand when another chimp is above it in the dominance hierarchy and signal that it understands its lower social rank through a submission display has almost zero chance of surviving. It is not an exaggeration to say that a chimp who does not know how to find its own food has higher odds of survival than a chimp that fails to understand its position within his or her tribe’s social hierarchy.

To create dominance hierarchies, chimps must have a repertoire of dominance displays and submission displays deeply ingrained in their behavioral sets. When you see BDSM in this context, it becomes quite comical: A ridiculous Kabuki theater for acting out early hominid dominance and submission displays that in turn piggyback off of the “code” used to motivate pre-human mating displays, all to masturbate a very specific neurological pathway.

Similar to attraction to either males or females, arousal/aversion from dominance and submission does not work on a spectrum, functioning instead as two independent systems. Just as a person can receive emotional rewards from the systems for detecting men *and* the systems for detecting women, a person can also be turned on by performing/watching both dominance displays *and* submission displays. The same way a person can be turned off by men *and* women, a person can be turned off by both dominance *and* submission displays.

Much to our fascination, it seems to be possible for a person to be turned on only through one specific subcategory of dominance or submission. For example, someone may *only* get turned on by the feeling of being constrained or humiliated—and no other aspect of the submission pathway. We are unsure why this happens, though our survey shows such narrow and specific tastes are rare. In our survey, most people who are reportedly turned on by one subcategory of submissive behavior also reported being turned on by submission in general (the same goes for dominance related behavior).

**Notes from the Research:**

* Female submissives (at least on the BDSM front) have lower empathy than average females.
* While BDSM is often conflated with abuse, surveys indicate that 70.8% of women participating in BDSM report that BDSM reduces psychological stress “always” or “almost always.”

Being Bound

Arousal from being tied up or immobilized is strikingly common (45%f and 23%m). It is easy to assume that the impulse driving this behavior comes from being bound serving as a submission display—and sure we can see a rope bunny who gets aroused by being tied with rope maybe deriving arousal from a submission pathway, but not every outlet for this kink looks like a clean-cut proxy for submission.

Consider latex vacuum beds in which all the air is sucked from a vacuum bag, completely and tightly immobilizing a person. This is well-known in BDSM circles, is seen as an extension of the latex and PVC rubber kink, and (contrary to popular opinion) did not arise in Japan, but likely emerged in Western Europe instead. Given how clinical and separated from potentially historic interaction patterns vacuum beds are, they do not seem like anything proximate to a classic submission display.

So, what do we think might be going on here? We think that a portion of “kinks” around being bound or otherwise immobilized are not actually kinks at all, in that they are not motivated by an arousal impulse. Instead, we posit certain interests are widely believed to be driven by an arousal impulse, not because they are motivated by an arousal system, but because the types of places that accommodate them (such as BDSM dungeons) typically focus on arousal pathways.

What if positive emotions from being bound represent a misidentified impulse? What if the positive emotional feedback actually felt by individuals indulging in these kinks is a swaddling impulse that doesn’t turn off fully in a portion of the population? For those who have never cared for a baby: Human infants take immense comfort in being snugly swaddled. It would almost be weird if there was no portion of the population that didn’t have this impulse “shut off,” especially when you consider there would not be a strong evolutionary pressure to ensure we only feel the swaddling impulse in infancy.

That we can’t look around and identify the portion of adults whose swaddling impulse never turned off suggests they are being obscured by some other group or behavior. We suspect that these people make up portions of the populations involved with what is traditionally thought of as bondage, recreational use of weighted blankets, and obsessively tight tucking in of sheets.

This is one of those things to always be careful about when trying to parse out drivers behind a human behavior pattern. When you are looking at behavior from the perspective of arousal impulses, it is easy to forget that not every weird mental pathway *must* be driven by an arousal system, there are plenty of good feelings that don’t come from arousal systems and not everyone compelled to a non-socialized behavior pattern are doing it because of an arousal system.

### Dominance in Self vs. Others

One interesting thing we decided to test for in our study was whether there was perfect overlap between people who feel aroused by seeing their partner acting dominant in a sexual context and acting submissive themselves in a sexual context. There was not.

It is actually quite common for a person to not be aroused by acting submissive themselves in a sexual context and yet to find it very arousing to see their partner acting dominant. The inverse is also true.

We find it a little odd that the systems shook out this way, but being aware of the dynamic is useful when mapping a person’s sexuality.

### The Non-Sexual World of BDSM

When some small sliver of a subgroup toys with sexual arousal, our society tends to perceive the *entire* community as primarily focused on sex. This tendency can obscure totally-non-sexual factors that draw many (if not most) members to these groups.

Given the theming of this chapter, let’s consider the BDSM community as an example. Many BDSM community members are attracted to the subculture by totally non-sexual interests. For example, BDSM scenes can induce something called “subspace” in the submissive individual (this comes in a number of variations, including petspace, ponyspace, and littlespace). Subspace is a trance-like state that combines a constricted perception of reality with a sense of euphoria capable of transforming the perception of other stimuli (i.e. pain might be perceived as pleasure). Depending on the individual, this experience can be completely non-sexual and yet it presents a huge appeal of BDSM to a significant number of participants in its adjacent communities.

Don’t misunderstand us—even subspace is not the major non-sexual draw for the majority of BDSM practitioners. There is a broad diversity of motivating factors drawing people to BDSM, ranging from a sense of community to the opportunity to master new skills and the manner in which BDSM roleplay allows people to assume new roles that extricate them from the doldrums of daily life.

Very, very, very few communities of any type are predominantly focused on sex or sexuality—this is probably why whenever any community is sex-adjacent in any way, outsiders assume it is *all about sex*. We see this phenomenon affecting communities as diverse as diverse as the poly, leather, pony play, Second Life, and furry communities. Consider how, as kids, when we first hear about dating and marriage, we think it’s all about kissing and sex, but as adults we come to see those things as making up less than 1% of the holistic dating/marriage experience and representing very little of dating/marriage’s appeal.

### One Way We Could Be Wrong

Our data suggest that 80% of women who tend toward the center of the gay-straight spectrum are aroused by submission, contrasted with only 62% of straight women. Recall how women in general in our data reported being more aroused by submission than the naked male form or penises. What if this explains why women are more likely to fall in the center of a gay-straight spectrum than men?

What if all our theorizing about an inverse system is just coincidence, and what is *really* going on is that women predominantly have a dominance-oriented sexuality? Could it be that the mostly-male lens through which sexuality has historically been investigated has led researchers to incorrectly assume that if males have a “naked-female-focused” sexuality, women must in turn have a “naked-*male*-focused sexuality?”

More females than males may appear to fall around the center of the gay-straight spectrum because more women’s dominance-detecting systems eclipse those meant to detect gender (meaning these women are not necessarily pansexual, but rather more attracted to dominance or submission than any particular gender). In this case, while many women placing around the center of the gay-straight spectrum in surveys would indeed be “bi” in the classical sense of being actively aroused by at least men and women,[[22]](#footnote-22) others would merely be women whose gender detection systems pale in comparison to their dominance-detection systems. Even if members of this second group were not aroused by anything tied to females, the relative volume of their female-detecting systems when contrasted with their dominance-detecting systems might be so weak that they would glean more arousal from a very dominant female than they would from most men.

We still don’t like this theory as much as the larger framework we present, but it may represent another way of looking at the larger truth.

**Note from the Research:**

* Can an emotion like fear increase our attraction to someone? A famous study conducted in the 1970s that reported to show that men who interacted with women in a dangerous situation felt a stronger bond with them than those who did not. Specifically, researchers had a girl interview men on a fear-inducing suspension bridge and on a normal bridge and recorded whether these men reached back out to the girl more often when the interview happened on the fear-inducing bridge.

This study has since been picked up by pop culture both due to its clever design and the fact that it yields a surprising result while simultaneously validating a hunch people kind of believe is true (these are the sorts of studies that spread the most, like that garbage study about babies and classical music). We would not take this study's findings as strong evidence of its claims. Obviously, people who interviewed someone in a unique and interesting environment and thus have an “excuse” for outreach are going to follow up with someone more than those who didn’t.

We mention this study to highlight the relative absence of strong evidence that emotional pathways outside of disgust, love, and dominance/submission proxies have ties to arousal.

### Transformation

BDSM, bondage, slavery, and humiliation are clearly tied to the dominance/submission pathway of arousal, but what about some of the less obvious kinks related to this arousal pathway? Transformation presents one interesting example.

The key to unlocking the mystery of what causes people to be aroused by the idea of transformation involves exploring the gender breakdown of transformation arousal (f16% m5%) and the variable age of onset. With this information, we can confidently say that transformation scenarios activate the human submission pathway.

As with most kinks that lean female, most transformation “porn” manifests in the form of narrative fanfictions and romance novels—typically, werewolf and vampire stories. The narrative structures of fanfiction and romance novels allow us to focus on the emotions experienced by characters during transformation fantasies, which in turn enables us to pinpoint what specifically triggers arousal. Arousal triggering emotions in transformation-focused romance novels and fanfictions typically fall into one of two categories: Either the transformation purifies the individual, making them somehow “cleaner” and more perfect, or the transformation revolves around pain, a lack of control, dehumanization, and/or surrender of control to another individual, who assumes a dominant role over the individual being transformed (Think: Sexy male vampire transforming a woman into a glittering vampire or a woman, recently attacked by a bloodthirsty werewolf, having her bones painfully crack and reshape as she becomes a beastly werewolf and loses control of her actions).

One interesting exception can be observed with superhero and magic anime girl transformations, which involve empowerment of the individual being transformed. While such transformations are often sexualized, they do not inspire the same amount of porn or erotic fiction as, say, werewolf, vampire, and animal transformations. This suggests that superhero / magical anime girl types of transformation are not effective at activating a transformation kink. This is neat because less sexualization of empowerment-based transformation makes sense if the above framework is correct—that transformation is a proxy for submission.

The counterpoint to the above argument is that transformation is actually overrepresented in females because it has something to do with pregnancy. Women have a portion of their life cycles in which their body rapidly and dramatically transforms, whereas males do not. We do not buy this theory but wanted to point it out as another option.

### Signs That our Framework May Be Wrong

Some emotional state associated kinks do *not* seem to reinforce our framework. We are never ones to hide evidence that we may be wrong, so let's take a quick look at four of these: Poppers, looners (those who engage in balloon play), voyeurs, and those aroused by sex in public spaces.

Poppers deviate from our model that implies all emotional turn ons are proxies to the dominance-submission pathway. While popping could be seen as engaging dominance-submission pathways (in that somewhat-unpredictable inanimate objects over which people do not have total control can be seen as being the dominant figures in a scenario), we hesitate to say this connection is definitive. Kinks of this sort may genuinely exemplify a case of crosstalk: If you tickle the part of the brain associated with anticipation—or non-sexual stimulation from certain emotional states like anticipation/release—enough, for whatever reason, it may directly affect the arousal system in a portion of the population through a potentially-unique pathway. Alternately, these kinks may involve a source of non-sexual stimulation being mislabeled (we suspect this happens frequently, with unusual sources of positive stimulation getting looped in to “sexuality” even when they are not activating arousal systems because they often take place within sexual contexts—for a more generic, if imperfect, example of this, think of a massage).

Looners gain arousal from sexual scenes involving balloons. From what we have learned from community members, interest in balloons arises before puberty, indicating it is either an inverse pathway (which we doubt) or an emotional state pathway. The problem is we can’t pinpoint exactly what emotional state balloons might be tied to. One community member we interviewed said they contextualized it as part of the BDSM community and to them it was an extension of submission or a tool for use in eliciting submission pathways. If this particular looner is right, it would be in line with our theory that all emotional state pathways are really just proxies for dominance and submission.[[23]](#footnote-23)

Voyeurs and those aroused by public sex may seem to be related on a superficial level but run off totally different arousal systems. Voyeurism is likely just a “breeding target” pathway functioning normally. The abnormal aspect of it lies in the lack of aversion the average person evolved to feel when they see the target of their sexual interest with another person. That said, many who practice voyeurism say the aspect of “betraying/violating” their target through watching is an important aspect of the arousal pathway, which would indicate a purer emotional pathway. While this might be a proxy for dominance, we doubt it.

Public sex seems to be motivated largely by the fear or heightened emotional state created by the risk of being caught. We suspect this is also a genuine case of crosstalk (we didn’t collect the data necessary to see if there is an overlap in these kinks, but if our crosstalk theory is correct, there would be).

**Notes from the Research:**

* One survey found that 66% of male and 57% of female participants had fantasized about the thought of public sex. Two predominant emotions appear to be at play here: “putting on a show” and “anticipation from fear of being caught.”
* Studies indicate that roughly two-thirds of men and one-third of women report having fantasized about voyeurism. Our survey showed 23% of females and 35% of males consume erotic material related to voyeurism. Personal accounts from voyeurs suggest they derive pleasure from the emotional states of their targets, specifically their targets’ suspicions of being watched or the concept of “betrayal” associated with their actions towards their targets.

## Emotional Connections to People

Some people—heck, *most* people—feel a sexual impulse when exposed to stimuli they associate with a person to whom they are emotionally connected, or at least experience a lowering of the threshold required to feel a sexual impulse created by other pathways. Some people—demisexuals—*only* experience sexual stimulation in concert with strong emotional connections. This arousal pathway kicks in during puberty. (Note: The Westermarck Effect is why you don’t end up attracted to family members even though you have a strong emotional connection to them; we discuss the Westermarck Effect in detail later in this chapter).

It is easy to understand why humans evolved to experience greater sexual arousal from those to whom they have an emotional connection. This development facilitates pair bonding, increasing the odds that people will care for any offspring they have together. Amusingly, our brains are not designed to separate an emotional connection with a real person from an emotional connection with a fictional person, so almost any popular show, book, or movie will end up with an immense amount of porn dedicated to it.

The fact that fictional characters activate this pathway gets interesting when people form attractions to characters that you really would not expect to see sexualized. Consider the porn generated by the large adult fan bases surrounding children's shows, such as “My Little Pony” and “Transformers.” Alternatively, consider the “fake” porn created of people with a public profile (and not just actors). Even Sarah Palin has had her share of erotic material created about her.

Despite stereotypes to the contrary, enjoyment of erotic material related to known characters is *not* the exclusive purview of “weird male loaners.” A robust 8% of females and 9% of males in our survey reported consuming erotic material depicting pop culture figures targeted at children, while 11% of females and 16% of males reported consuming erotic material focused on pop culture figures targeted at adults. This gender parity should not be surprising, as preferentially wanting to mate with individuals to whom someone has an emotional connection is evolutionarily beneficial to both males and females. This gender parity is only surprising because society has created a default assumption that all sexually deviant activities skew male.

Fan bases have been sexualizing cherished characters since at least the 1920s, which saw the emergence of little porn books called Tijuana Bibles (also known as eight-pagers, Tillie-and-Mac books, or jo-jo books). These publications were typically purchased under the counter from bars, bowling alleys, garages, barbershops, and second-hand bookstores. Tijuana Bibles featured popular characters of the time, such as Popeye, Blondie, Dick Tracy, and Little Orphan Annie in sexualized contexts. We would bet that this behavior goes back much further. It is possible, for example, that sexualized political cartoons alleging that Marie Antoinette had lesbian relations with the duchess of Pequigny were more driven by this sexual drive than any political gripes, and that as long as humans have been forming emotional attachments to fictional characters, they have been finding ways to create stories that sexualize them.

Emotional connections might also stand at the root of the aversion impulse most people feel when someone with whom they feel emotionally close engages sexually with another person. In other words, if you have an emotional connection to a person or a fictional character, you will likely find the idea of them having sex with someone else gross and be similarly repulsed by the idea of someone else masturbating to them. In a small portion of the population, this aversion reaction is flipped (as happens with any attraction or aversion impulse per our theory).

An inversion of the disgust most people feel when they see someone to whom they are emotionally connected engage sexually with another person likely explains the drive behind a portion of the hotwife/cuckold community. We would argue the drive to see someone with whom you share a strong emotional connection have sex with someone else is *not* primarily driven by a desire to be humiliated as is often assumed by outsiders (though humiliation certainly does play an important role for a portion of the community). If “hotwifing” is indeed driven by an inverse pathway, this would also explain why the behavior is so overrepresented in men (f11% m17%), as inverse pathways do not occur as frequently in women, (conversely, if it was over represented in females, we could assume it was motivated by the dom/sub pathway, which is seen more in women).

Contrary to what pop culture would have you believe, the tendency to perceive individuals to whom you have an emotional attachment as more attractive is incredibly strong—even among long-term romantic partners. About 90% of people have sexual fantasies about their current romantic partner, and two-thirds have these fantasies frequently, whereas only about 10% of people frequently fantasize about Hollywood celebrities, porn stars, politicians, or other famous people. Interestingly, while fantasizing about your partner is shown to increase the quality of your sex life with them, research has also shown fantasizing about other people is not linked to a decline in a couple’s sex life (though after a breakup, people will often look for “evidence” like this that the breakup was inevitable).

This category of arousal is one into which label-happy individuals have really sunk their teeth. The most common label related to this connection between increased arousal and emotional connection is “demisexual” to denote an individual who has emotional connection as their primary arousal pathway. People with a sign flip, who receive aversion from this pathway (e.g., they find the thought of sex with people to whom they have a strong emotional attachment aversive) are called “akoisexuals” or “lithsexuals.” “Lithromantic” is a term for individuals who primarily derive arousal from this pathway but have aversive reactions through enough of their other pathways that they prefer to fantasize about relationships over actually being in them.

Rather than assign a litany of labels to different types of sexuality, we prefer to clearly describe sexuality by stimuli, reaction, and volume. We see ultra-specific labels, such as “lithromantic” as inefficient because no one has time to remember them all. A word to which only you know the definition isn't useful at transferring information to another person, which is, well . . . the purpose of language. *(Not that we think people should abandon words describing specific sexualities: These ultra-specific terms can help people feel more comfortable with their sexualities and provide a sense of belonging. However, when it is presumed that sexuality is primarily described through specialized terms, they run an equal risk of causing someone to feel forced into a sexuality only adjacent to their own—or isolated, should an adequate term for their particular sexuality not exist.)*

### Sex Without Emotional Attachment

Individuals with an inverse pathway in relation to emotional attachment get turned on when they see others hooking up with people to whom they are emotionally attached (in the form of cuckolding). We also see something of an opposite phenomenon in which people feel rather turned off by the idea of sexual intimacy with someone to whom they feel emotionally connected (this is what the term akoisexual is meant to describe). Just as a small portion of the population will find typically aversive things to be arousing due to a sign flip, an equal portion will find something normally arousing to be aversive, which is the dynamic at play when people feel grossed out by sex with those they love.

Such people often fantasize about sex without an emotional attachment. This is pointed to as one of the major drives behind bestiality by zoophiles (in studies exploring what drives people to want to have sex with animals). This desire for sex without emotional attachment may have added some fuel to the broader “sex robot” trend, with one (admittedly non-peer-reviewed) study showing 11% of females, 17% of males, and 23% of non-binary individuals reporting having fantasized about it (7% of women and 8% of men responding to our survey reported consuming erotic works involving sex with an android). Still, 70% of people rarely or never fantasize about emotionless sex, meaning that wanting an emotional connection to a partner is the norm.

### Laughter & Attraction

Much to our surprise, we could not find any study that showed laughter directly leading to arousal in and of itself—outside of neurodivergent case studies. That said, laughter *does* seem to promote emotional closeness in a large portion of the population, which in turn makes arousal more likely to form. Studies have shown that the more times a guy can get a girl to laugh, the more likely the girl will be to want to date him (though even a stronger metric on this front is the number of times both partners laugh at the same time during their first encounter).

Why do people bond more quickly with those who are funny? Surprise: It's not that being able to make someone laugh should be seen as a proxy for intelligence. In fact, University of Kansas researcher Jeffery Hall was unable to find any connection between humor and GPA scores, SAT scores, or self-perception of intelligence. Instead, being funny seems to track with extraversion and agreeable personalities, which seems to be the reason we preferentially sort for a sense of humor in partners.

“So,” you may be wondering: “is it that humans developed humor to signal extraversion and agreeableness?” We do not think so; rather, we think laughter being picked up in this way is just a happy accident that was then conveniently co-opted by our relationship-building systems.

### Why Do Humans Laugh?

Sometimes we have a theory we really want to get out there in the world, and we know it’s not going to fit in any book we plan to publish in the near future, so we sneak it in somewhere kind of relevant in one of our books. This particular theory is on why humans laugh, a question which stands proudly in the realm of great mysteries in cognitive science.

There are three keys to this theory:

1. The first involves identifying *when* people laugh: People laugh when exposed to surprising information—or information that fits into their larger understanding of the world (or a schema presented in the context of the joke), but that still took them by surprise (perhaps it was framed differently). Basically, a laugh means: “Oh wow, that makes sense, but I didn’t expect it.”
2. The second key to this theory involves determining the stage in life during which humans laugh most: It appears that humans laugh most frequently when they are very young (from infancy to toddler age).
3. The third key to this theory entails how one feels when seeing an adult versus an infant laugh: If you have had kids, you know you have a very specific and unique positive reaction to seeing an infant or child laugh that motivates you to repeat whatever stimulus you created that caused the child to laugh.

At this point, you probably see where we are going with this. We suspect adult laughter is just an artifact of a response that is “meant” to only appear in early childhood but has been co-opted by social schema in a way that promotes group bonding. We theorize that laughter still exists to a lesser extent in most adults only because there is no strong evolutionary pressure to get rid of it (similar to crying, which probably is only meant as a communication tool for pre-verbal infants, but is still present to a lesser extent in many adults because, again, there was no evolutionary pressure to get rid of it).

When functioning properly in young children, laughter is meant to positively reinforce the provision of novel concepts by caregivers, training caregivers to stimulate children and help them learn important skills. Think of an infant laughing at a game of peekaboo: He is beginning to understand the concept that a person is still there even when their eyes are covered, but still needs some more exposure to it for it to fully “click” and is signaling this to the caregiver. This in turn causes the caregiver to want to continue playing a “game” with the child even if they don’t understand what the child is extracting from it.[[24]](#footnote-24)

Essentially, we think laughter is a bit like lactose tolerance. Up until fairly recently in our evolutionary history, only kids could drink milk without getting sick, and then the system for digesting milk essentially turned off. Only very recently did a portion of the world's population begin to evolve the ability to keep that system operational. We suspect something similar happened with laughter just a few million years earlier.

Another use of laughter in infants could have been to bond infants to their caregivers and vice versa. If this were the case, it would make hijacking the system for mate selection especially easy as the basic “machinery” that facilitated an emotional bond based on laughter was already in place.

***BUT***

There are two other reasons for laughter not discussed above, and both are very relevant to human relationships in the modern age—just not in the ways you might expect:

* **Sympathetic laugher:** This involves laughing when you see another person laughing. Old sitcoms used laugh tracks in the background to subconsciously “trick” the audience into laughing at things that were only mildly funny.
* **Nervous laughter:** A lot of older research has a big blind spot: women. Women just were not used that much in older studies, meaning many of our theories on the manner in which humans react ignore responses that are more common in females. One big one is the concept of the “fight or flight” response, which is predominantly used in men when they feel threatened while the “tend and befriend” response is more common in women. Part of this tend and befriend response is to laugh when in socially uncomfortable situations or physical danger.

Why do these two other types of laughter matter in relationships? Sitcoms.

Sometimes, sitcom writers get lazy and instead of writing things that make people laugh by subverting the audience’s expectations (the kind of laughing that feels good) they would write things in a way that made people laugh by putting characters in uncomfortable, socially threatening situations and then play a laugh track over the situation to normalize laughter in response to such circumstances. This may seem like innocuous lazy writing and social manipulation, but it led many men to interpret nervous laughter the same as “real laughter,” causing them to overstep their bounds with women and feel positively emotionally rewarded for behavior women find weird, creepy, and otherwise threatening. Essentially, sitcoms have led otherwise well-meaning guys to misinterpret the “oh my God this guy is going to kill me; someone get me out of here” nervous laugh with giggly infatuation.

### The Westermarck Effect & Sex with Siblings

*Before we explore this subject in detail, a warning: Some recent research has challenged the Westermarck Effect. However, this research does not represent a majority opinion in the scientific community at present and no research of which we are aware has challenged the differential attraction to biological relatives.*

People appear to find their relatives much hotter than other people—but only when they do not know they are their relatives. If you are separated at birth from your brother or sister, but meet them later in life, you will likely be very attracted to them. This is a bit of a problem with prolific sperm donors—there are actually online support communities for people who encounter siblings later in life that they subsequently find sexually attractive.

Given this apparent attraction, plus the strong emotional closeness we have with our siblings, why do we not want to bang our brothers and sisters when we know they are our siblings? For this saving grace, we have the Westermarck Effect to thank.

The Westermarck Effect causes people who live in close proximity in their early years to develop a sexual aversion to each other—regardless of how related they are. Simply put, anyone around you a lot in childhood, be they a step-sibling, a parent, or a biological sibling, will generate a strong sexual aversion impulse.

The Westermarck Effect has caused problems in societies with arranged marriages involving a future wife moving in with the husband’s family in early childhood. In some countries, families buy brides while the girls are still children and raise them with their future husbands, which unfortunately results in husband-wife pairs who experience a high level of aversion toward each other.

As with any sexual aversion system, the Westermarck Effect can be subject to an inverse arousal pathway, which leads one to be attracted to—rather than grossed out by—siblings. To make matters more awkward, given how strong an aversive impulse the Westermarck Effect creates, the attraction impulse generated when the sign flips is quite strong.

#### Roleplaying Relatives

Interestingly, many people who find the concept of sleeping with family members arousing actually still experience the Westermarck Effect and are quite repulsed by the idea of sleeping with their own family members. In such cases, either people find someone *pretending* to take on the social role of a fictional child, parent, or sibling of theirs arousing or they find it arousing to watch two people who are related engage sexually (see “twincest” or “wincest”). Instead of involving arousal at the idea of intercourse with actual siblings or parents, these kinks involve arousal derived from the social dynamics that these family relationships represent on a societal level.

In the case of people who are aroused by sibling porn or roleplay: Their brains may be using the sibling dynamic as a cultural shorthand for intimate trust. Through this shorthand, these individuals can quickly activate arousal pathways through either a betrayal of this trust or an indulgence in that trust depending on what emotions arouse them most.

In the case of father-daughter roleplay, which boasts a fairly large community (called “Daddy Dom / Little Girl” kinks or DDLG for short), arousal appears to stem from dominance and submission dynamics (as can be inferred from the overrepresentation of this kink in women). People are drawn to this dynamic because, in our society, dominant-submissive relationships are almost never painted in a positive, caring, and protective light—except within father-daughter relationships. The father-daughter dynamic is likely one of only a few schemas many people have that presents a warm, caring, and protective submissive relationship in which the submissive party still has autonomy.

Within the context of a society that shames almost every other type of submissive relationship, it makes sense why the daddy-daughter dynamic is so commonly seen in sexual roleplay. We also imagine a lack of respected dominant-submissive relationship schemas in which the female is dominant explains the popularity of teacher and nurse kinks among men. These social schemas represent caring-yet-dominant figures that do not challenge men’s masculinity (i.e., a person can still feel like a tough, masculine guy and be submissive to a female nurse in a roleplay situation).

#### The Common Practice of Marrying Cousins

While we are on the subject of incest: In cross-cultural research, the most common preferred partner is a cross-cousin marriage (one’s mother's, brother's child, or one’s father's sister’s child). Among small tribes, cousin coupling reduces odds of severe inbreeding more than any other pairing.

It might seem odd that marrying a cousin might reduce inbreeding. This happens because of the Westermarck effect: When you live among a small tribe in which people occasionally cheat, about the only individual in the tribe you can be *sure* they didn’t cheat with is their own sibling—thus your cousins are the only people in the tribe you can be certain are not your siblings. At any rate, the risk of inbreeding drops significantly when people shift from siblings to cousins.

Keep in mind that royal families did this for centuries, and it usually took a royal family a couple of generations for inbreeding to catch up with them. According to some historical theorizing, Catholic Church laws stand behind society’s taboos around inbreeding with second cousins and other fairly distant relationships. These laws, as it happens, were most likely created to decrease power consolidation within families, which in turn boosts the church’s odds of inheriting land from the deceased. We are not sure if we believe this, but it makes for an interesting story and is backed up by the fact that, in the early 9th century, the church banned marriages with relatives as far away as 6th cousins, making finding someone to marry in a small town without an incest waver from the church VERY difficult.

## Tropes

Trope attraction involves experiencing sexual arousal upon seeing someone who fits a certain type, trope, or role. Sexual stimulation derived from tropes is uniquely difficult to understand, explain, predict, and analyze. People who experience this type of attraction are uniquely attracted to a certain “type,” such as goths, punks, soldiers, teachers, biker gang members, nerds, etc.

Why would a jock guy develop a differential sexual output when looking at cybergoth girls when contrasted with girls who associate with different styles or tropes? Trope attraction is neither an evolved attraction nor one that has been influenced by straightforward socialization or conditioning (or at least we don’t see any obvious ways trope attraction could be tied to these pathways).

Some guesses:

* Perhaps people subconsciously pair tropes with desired traits in a partner, then create an attractiveness modifier in their brain.
* It could be that trope attraction is somehow tied to people one found attractive early in life (e.g., that goth girl who always sat at the front of the classroom in 10th grade biology).
* Maybe trope attraction is tied to fictional characters to whom one has grown attached.
* Perhaps the modifier that makes us more attracted to people to whom we feel emotionally close can form into amalgams if one repeatedly fantasizes about a specific type of person enough.

If you found our non-committal answer here unsatisfying and want to dig into the tropes individuals find most attractive, check out the “Arousing Dioramas” supplement chapter on page .

## Novelty

There is an old joke about something the 30th President, Calvin Coolidge, may have said while he and the First Lady were being shown around an experimental government farm. When Mrs. Coolidge came to the chicken yard, she noticed that a rooster was mating very frequently. She asked the attendant how often that happened and was told: "Dozens of times each day."

Mrs. Coolidge said, "Tell that to the President when he comes by."

Upon being presented with this fact, the President asked: "Same hen every time?"

"Oh, no, Mr. President,” he was told, “a different hen every time."

President: "Tell that to Mrs. Coolidge."

While this story is likely apocryphal, it struck a chord with enough writers to generate a name for the dynamic it describes: The Coolidge Effect. This effect is both real and extremely pronounced in males across species and exists to some extent in females as well. When a male rat is put in a cage with a number of females, he will mate with each until he becomes exhausted, after which he will then ignore the females despite being nudged and licked. That said, the male rat will immediately become alert and begin mating again as soon as a new female is added to the cage.

The effect is present in humans, whose arousal levels quickly decline when exposed to the same arousing imagery on multiple occasions and rise when imagery is varied. Another study showed that if you expose a male to porn featuring the same actress over the course of a few days, then show him porn featuring a different actress he will ejaculate faster and release more active sperm.

This tendency does not bode well for monogamous relationships, as you might imagine. The situation is actually worse than it appears at first glance, as it is amplified by the testosterone decrease and associated libido decrease men experience when in long-term, pair-bonded relationships (this decrease in testosterone is amplified after having children, further compounding the effect). So not only do men in long-term relationships have on average lowered libido overall, but the sexual arousal men derive from seeing their partners naked will decrease.

This damper on the sexual spark of long-term relationships will be mollified to a slight extent by the increase in arousal created by any strong emotional bond created—though in the average male, this is not nearly enough to cancel out the above two effects. This is not to say that the world is devoid of men for whom these pathways are broken in some way, but in the vast majority of cases, choosing a guy or girl for a long-term relationship because you like that, during a short term relationship, they are always horny and wanting to have sex is probably a bad idea given the Coolidge Effect.

Participating in a polyamorous relationship appears to nullify the Coolidge Effect. In fact, a man who is having enjoyable sex with another, secondary female partner will report enjoying sex with his primary partner more. Having additional partners will also increase a male’s testosterone and thus their libido, so men engaging sexually with multiple partners will not only feel as though they’re having higher-quality sex with their primary partners on average but also cause them to desire more of it.

Sadly, the enhanced-enjoyment effect is reversed in females. Statistically speaking, females enjoy sex with their primary partners less if they are sleeping with other people and enjoying it. Obviously, people’s personal experiences vary, and this is just the statistical average of how the presence of additional partners affects each gender.

While many couples claim to try to mix things up through new positions and novel forms of sexual engagement, such measures are unlikely to remediate the effects of the Coolidge Effect. The Coolidge Effect appears to be triggered in part by olfactory cues (at least in rats), so it would seem that “spicing things up” outside of adding additional partners will have a limited effect.

It is hypothesized that the Coolidge Effect, or something similar, led to the evolution of traits like eye color, red hair, and freckles in humans, as such traits made their bearers appear more unique. These traits seem to evolve more frequently in populations with more females than males (often due to war and extreme conditions such as cold and high altitudes), in which there would consequently be more inter-female competition.

The Coolidge Effect is often used to talk about men, but what about women? Do women lose arousal to a partner over time as well? A 2012 study with 170 participants found that women's levels of sexual desire declined much more quickly than men’s as relationships aged. A study of 2,100 women in 2016 showed that women who had stayed in a single relationship throughout the course of the study reported less desire, arousal, and satisfaction from sex (though we can’t help but wonder whether sex drive may be a correlating factor for women who leave relationships). Finally, two German studies in 2002 and 2006 showed that women who lived with a partner saw their desire drop dramatically over the course of 90 months—a phenomenon these studies did *not* observe in male participants. Despite societal stereotypes to the contrary, it looks like women may experience a Coolidge-Effect-like phenomenon that affects them even more strongly than men.

## Pain & Asphyxiation

Pain and asphyxiation hijack fairly deep neural pathways—pathways deeper and more primitive than any of the arousal pathways discussed so far. Pain and sexual pleasure from physical stimulation rely on closely related neurochemical pathways that may have significant crosstalk in some individuals (with pain, it is the closeness of the neurochemical pathways that causes this crosstalk and not the spatial closeness of where it is processed like in the theorized case of feet or some social cues).

More specifically, both pleasure and pain are related to humans’ dopamine and opioid systems, which regulate neurotransmitters involved in reward pathways, causing things such as the motivation to eat, drink, and have sex. Pleasure and pain are also associated with some of the same regions of the brain: The nucleus accumbens, the pallidum, and the amygdala.

Arousal from pain is super common, with one survey showing around 44% of men and 24% of women fantasizing about spanking or whipping someone else during sex and 36% of women and 29% of men fantasizing about receiving such treatment—though it is worth reminding readers this isn’t a clear-cut activation of the pain pathway, as both spanking and whipping would activate the dominance display and submission display pathways.

In our survey, we asked: “Does this statement describe you: “I sometimes look at pornography or read romantic literature in which one of the partners appears to be in pain.” and found:

* Yes with a focus on physical pain: f20%, m15%
* Yes with a focus on emotional pain: f8%, m1%
* Yes with a focus on both physical and emotional pain: f10%, m11%

Other pain and asphyxiation related stats from our survey:

* Regularly consume erotic material that contains sadomasochism: f18% m18%
* Regularly try biting during sex: f29% m22%
* Regularly try being bitten during sex: f25% m29%
* Regularly try scratching during sex: f26% m11%
* Regularly try being scratched during sex: f19% m24%
* Aroused by being choked during sex: f26% m12%
* Aroused by choking someone during sex f10% m21%

But again, most of these survey answers are capturing arousal from dominance and submission displays that involve pain or hypoxia, rather than pain or hypoxia themselves.

As a side note: We would draw readers’ attention to how much more women are turned on by submission-related concepts than men, with 800% more women consuming erotic material that focuses on emotional pain when contrasted with men. This aligns well with what we discussed in relation to higher female arousal from submission and narrative format erotic art.

While asphyxiation does not necessarily enhance arousal through pain, it makes sense to thematically group the two. Erotic asphyxiation leverages a state of hypoxia to enhance orgasms, making them feel quite different than an orgasm obtained outside of a state of hypoxia. While this pathway is unique in that it should work for all humans, people with a strong sexual aversion to submission will likely be unable to utilize it.

Erotic asphyxiation also appears to create orgasms that are more addictive in nature and can lead to extremely destructive behavior as individuals chasing higher highs. Autoerotic asphyxiation fatalities account for about 1,540 and 3,850 each year (these numbers are from Alberta's medical examiner, Dr. Anny Sauvageau, and are much lower than previous estimates)—though we suspect the actual number is likely much higher, as we have read it is rare to find evidence of masturbation at the scene of an autoerotic asphyxiation, so most instances of death by autoerotic asphyxiation are just reported as suicides.

From a neurological standpoint, we wonder whether pain alone, in the absence of hypoxia, can really create arousal in a person or whether pain is just a proxy for a submission display. Some have theorized that the high reported from long pain sessions during BDSM is closer to a runner’s high than a true arousal response.

We would love to see a penile plethysmograph (a measurement of blood flow to the penis to gauge sexual arousal) conducted in conditions similar to the Milgrim experiment (in which test subjects were instructed to subject others to painful electric shocks), but without the authority figure (which was present in the Milgrim experiment to order subjects to shock others) to remove other potential stimuli. With such an experiment, we could not only probe for the existence of people who are only turned on by pain, but also determine if true sadists (people turned on by causing pain outside of causing pain being a dominance ritual) exist. Alas, ethics boards would probably prevent such experiments from taking place because they are populated by killjoys more concerned with the safety of the general public than having fun.

One of the sex researchers we consulted when sanity testing this book attested to encountering those who derive sexual pleasure and excitement from pain alone; however, she never had the opportunity to ask what those people were thinking about while inflicting or experiencing that pain (those thoughts, rather than the pain, might have really been the source of arousal). She theorizes perhaps some of the pleasure derived from pain involves a feeling of release or an excuse to release.

What we can say is that when people are consuming erotic material tied to pain, it appears to be pain as a concept that is most erotic and not the idea of pain being inflicted on them or inflicting it on others. More specifically, when we asked: “When you consume material in which it appears one of the participants is in pain, where do you place yourself in that fantasy?”[[25]](#footnote-25):

* I sometimes imagine myself being the one in pain: f48%, m42%
* I sometimes imagine myself causing the pain: f27%, m58%
* I sometimes take the role of an observer: f52%, m67%

In other words, the average person who is aroused by pain finds *concepts on their own* to be more arousing than the manner in which these concepts relate to them personally. This implies that the majority of the people who use pain to become aroused are actually receiving arousal from the dominance/submission arousal system and not the pain system directly.

**Note from the Research:**

* On the topic of BDSM and pain, two studies in the *Archives of Sexual Behavior* found that when participants engaged in sadomasochistic acts as part of erotic play, they bonded more with their partners and developed more trust in them when contrasted with partners who did not participate in sadomasochism.

### Warning: Choking Hazard

Choking during sex can act as both a dominance ritual and create hypoxia, enhancing orgasm, which is why it is such a common practice. While choking may make you and your partner feel good, you really should not do it (assuming you value your life or the life of your partner—if not . . . you do you). Sometimes you should not do things that turn you on, even if they are widely socially accepted as “not that weird” or “not that big a deal” and are fairly common turn ons.

We failed to find any method of suffocation or strangulation that can be carried out without the risk of cardiac arrest. Worse, there is no reliable way to determine when the risk of cardiac arrest becomes imminent. The probability of successfully resuscitating someone after cardiac arrest is fairly low (about 90% of people who experience cardiac arrest outside a hospital die).

You might imagine that so long as you do not take choking to a point at which you pass out, the warnings above do not apply to you. That assumption is incorrect. It is impossible to parse out the point at which unconsciousness will occur until you actually become unconscious. More importantly, unconsciousness is a symptom of other things you cannot easily identify. Stuff still goes wrong before the unconsciousness happens.

You might at this point be thinking to yourself: “No, it’s totally cool; I know this safe way of choking where you avoid the windpipe and press on the arteries that deliver blood to the brain, leading to hypoxia with no risk.” Frankly, that method is not any safer. Pressing on the carotid arteries puts pressure on the baroreceptors—known otherwise as the carotid sinus bodies. This pressure can cause vasodilation in the brain. Simultaneously, the vagus nerve sends a message to the pacemaker of your heart, telling it to decrease the force and rate of your heartbeat. While most of the time this is not that big a deal and your heart rate will just decrease by about a third, some of the time your heart rate will actually *increase* by three thirds and then . . . to zero as it “flatlines” into asystole. This is a uniquely difficult-to-treat form of cardiac arrest and has been documented in cases that result from as little of five seconds of this form of choking.

But then again, we drink alcohol, and we know it could kill us one day, and some fellow idiots climb Everest even though 6.5% of them will die in the process, so maybe you just like being choked enough to keep doing it despite the considerable risks and stark fact that a lot of people die engaging in this hobby on an annual basis. All we ask is that you fully, logically acknowledge the risks and do not strive to prevent such risks from being taught. This is one of the many reasons why sex education that focuses on “kinkier” sex is critical. When roughly one in four people have been chocked or choked someone during sex, we don’t get to pretend that the dangers involved in sexual asphyxiation only affect “kinky people.”

## Basic Instincts

It seems as though basic instincts drive a certain amount of human arousal. We like to describe behavior driven by these instincts as "sexual autopilot mode."

We like to chuckle at kids who smash dolls and other unwitting, inanimate victims together and say things like "Now, KISS!!" but it does seem as though physical proximity is indeed—through some basic, instinctual mechanisms—a source of arousal.

If not explicitly a source of arousal, at least close physical proximity appears to occasionally trigger something we internally refer to as "sexual autopilot mode,” which compels sexual behavior without necessarily inciting someone to feel arousal. This pathway is also seen in behavior like the dry humping instinct that some people feel when they cuddle with someone. The pathway might represent the remnant of a precognitive attraction system designed to get our ancestors to mate that only still manifests in bits and pieces within modern humans.

While this is not an easy state to study, we would be remiss not to mention that it exists as a category of attraction. This pathway may even be working off of a neurological system independent from the arousal system, as it is more of an impulse to complete an action, whereas the arousal impulse is more of a reward mechanism.

## Physical Stimuli

As you are no doubt aware, when you touch erogenous zones on a person's body, they may feel arousal and pleasure. That said, receiving sexual stimulation from touch is a little more complicated than just “touch spot X with pattern Y; sexual arousal level 2 will result.” Arousal resulting from physical stimulation is not only modified heavily by other stimuli triggering sexual impulses; these systems also work differently in different people with different levels, types, and patterns of physical engagement.

Impulses generated by physical stimulation are not always contextualized as sexual in nature. Consider the autonomous sensory meridian response—ASMR for short (look it up on YouTube if you are interested). For some people, subtle auditory and visual stimuli, such as the sound of a crinkling bag, can generate a response similar to the response triggered by light sexual touching. That said, many who experience the response do not contextualize it as sexual arousal due to the environmental stimuli that cause it to be so non-sexual in nature.

**Note from the Research:**

* Generally, female rats will evade their partner during sex. Some researchers theorize this to be an attempt to extend the length of sex because rat females find sex more pleasurable when it lasts longer. In some studies, graduate students are tasked with stimulating the female rats by rubbing their clitorises—and when they stop, the female rats will tug the students' sleeves which some students interpreted as the rats “asking” for more. We’re not sure if this is relevant to humans, but we nevertheless found the behavior entertaining enough to mention after stumbling upon it while looking for info on physical stimulation, as it relates to arousal in non-human mammals.

## Conditioned Responses

Pavlovian—or conditioned—sexual responses are a product of training. In one experiment, scientists were able to manufacture an arousal impulse upon exposure to pictures of boots by associating pictures of boots with images of attractive women. It is conditioning like this that most likely leads to traits like shoe kinks, seeing as we can neither find an evolutionary reason a person would find a shoe attractive nor secure evidence of any sort of neurological crosstalk that might mix up the recognition of shoes with some other arousal pathway. Furthermore, instances of female kinks around male shoes are extremely rare, which would imply that something about women’s shoes must be constantly sexualized in society, and, *surprise, surprise,* this is exactly what we see.

In one particularly bizarre study, researchers put some male mice in little jackets that they wore the first nine times they had sex. For their tenth sexual encounters, both the control mice and the jacket mice were randomly assigned to either wear a jacket or be in the nude. The control mice were still able to have sex in both conditions; however, some (40%) of the jacket mice had trouble in the nude condition (a similar study was conducted in which the female rats wore little jackets while having sex, which yielded the same results). Still other studies revealed we can block the kink/fetish preference using naloxone, a chemical that blocks endorphin receptors (and if it works with naloxone, it would also work with naltrexone, which is easier to get in the US).

Though this is purely anecdotal, we have observed women to be less susceptible to Pavlovian sexual conditioning than men. Consider even simple things like the smell of a perfume or cologne: When a man is exposed to a smell repeatedly in association with a pair-bonded partner, he tends to become aroused when exposed to that smell out of context or later on, whereas women seem to be more likely to develop feelings of nostalgia instead. We have seen no study that attempts to parse out if there is a gendered difference in the way Pavlovian sexual conditioning “takes” and would love to gather some experimental data on this.

Sexual conditioning is quite distinct from what some ideologies refer to as “socialization” and does not appear to function as one would expect socialization to function. In what we will call “socialization theory,” society teaches you what to find attractive. For example: If a society repeatedly contextualized women with highly-visible moles as hot, regularly featuring them in ads, socialization theory would have it that men would start to become more aroused by women with moles. This form of sexual socialization does not appear to work. You cannot teach someone what to find arousing; however, through conditioning, you can affect someone’s arousal. (We discuss evidence backing this up in the next chapter.)

Some of the historical political regimes most infamous for being effective at goading people into going *against* their instincts knew full well that they were better off leveraging conditioning instead of socialization. Consider the Nazis, who notably created anti-Jewish propaganda in which footage of Jewish people was interspersed with things that caused a disgust reaction, like rats, to lead people to develop an otherwise unnatural disgust toward a specific group of people.

In contrast to socialization, conditioning pairs a stimulus that triggers sexual arousal or disgust/aversion with a secondary stimulus that does not. Conditioning completes this pairing by repeatedly showing these two stimuli together. For example, advertising agencies may pair something like an attractive woman or female foot, which many already find highly sexual, with a shoe until some begin to see the shoe as sexually arousing as well.

A case exemplifying how conditioning can happen by accident in a human can be seen in a man who, as an adolescent, would hide in a small closet to masturbate and is now aroused when he sees doorknobs. Conditioning is *not* at play in a man whose dad insisted he needed to be tough who, as an adult, derives sexual pleasure from acting dominant. In the case of the closet masturbater, a stimulus was specifically paired with an aroused state. In the case of the man with the tough dad, he was simply told a stimuli *should* be paired with an aroused state. The closet masturbater illustrates a case of conditioning, which does affect arousal pathways; the dominant man illustrates a case of socialization, which doesn’t affect arousal pathways. .

Conditioning is more complicated than we imply. Few men are aroused at the sight of a computer monitor or a box of tissues, even though both are frequently associated with masturbation. We are uncertain why this is, but we assume it may have to do with rumination or the point of the arousal cycle at which the stimulus is introduced.

A separate phenomenon called sexual imprinting may or may not involve the same pathways used in conditioning. A goat raised from birth with sheep will become sexually aroused by sheep and not goats. A man exposed to a breastfeeding mother between the ages of 1.5-5 will be more likely to be attracted to breastfeeding women. In general, individuals who grew up with a younger sibling (and thus were exposed to pregnancy early in life) have a 66% increased level of attraction to pregnant women (Fun fact: “pregnant” is now the 107th most popular porn search in the United States, putting it right up there with “redhead” and “babysitter”). Another example of sexual imprinting among humans can be observed in people's tendency to be attracted to those who resemble their opposite sex parents.

In animal studies, imprinting appears to affect different genders differently. For example, while a male sheep who imprints on goats during his formative years will never show a desire to mate with female sheep, female sheep who imprint on goats can be trained to be willing to mate with male sheep later. Basically, imprinting is irreversible for males and reversible for females.

# Things That Do NOT Cause Arousal

Though we briefly dispelled common myths about arousal patterns at the beginning of the book, let's do a second, deeper dive into arousal pathways in the popular zeitgeist that do not appear to be well supported by evidence.

## Socialization

As we mentioned in our discussion on conditioning, socialization probably doesn’t stand behind a significant proportion of the population’s sexual impulses—and yet the idea that most of a person's sexuality is “socialized” or the product of societal preferences is downright pervasive. While society can teach people what they are *supposed* to find arousing and aversive, we find little strong evidence suggesting that society can change people’s underlying patterns of arousal and aversion simply through instruction or inundation. You can change what a person says is arousing, but not what physiologically arouses them.

The clearest indication that socialization isn’t shaping our sexual preferences can be seen in the fact that men prefer women of healthy weights in their pornography and in their partners. Men raised in Western culture are socialized from birth to believe that rail-thin models are the ideal of beauty. From video games to billboards and television, people are taught that women at unhealthily low weights should be more arousing. Despite this, men do not prefer skinny women over women of a healthy weight in the majority of studies conducted on the subject (though in the name of full disclosure, a minority of studies do show that skinnier is always better).

In our survey, 21% of men reported consuming erotic material depicting overweight women while only 14% reported consuming erotic material featuring underweight women. This finding is supported both by extant research and the marketplace. On Alexa’s adult website list, there are (as of 2019) 504 sites dedicated to heavier women and only 182 dedicated to skinny women and three fat girl searches for every skinny girl search. **The average American porn actress is in the healthy range of BMI. Only famous non-porn celebrity movie actresses regularly fall below the healthy range.** This data shows that on average, men find women of healthy weights to be arousing, despite being socialized to see underweight women as ideal.

It appears that there is an average range of weights that people find most attractive in their partners and that range cannot easily be “socialized” up or down.

You may be furrowing your brow with consternation given our neglect to mention various “tribal groups” who favor fat women, plus evidence that ancient Western cultures loved fat women. You may be under the impression that these examples “prove” that cultures *can* socialize people into being aroused by individuals at higher body weights. Surely if the most attractive body weight in women differs widely between cultures, then socialization must be affecting arousal patterns.

The myths suggesting these cultures are common stem more from racist Victorian cultural tropes of fat-worshiping savages than real anthropology. Cultures that find fat women attractive are much rarer than those which favor forms of conscious self-mutilation, such as the use of gauges to create giant earlobes or full body tattooing. Moreover, these cultures have never been tested in a way that would enable us to determine whether people are sexually aroused by overweight partners or whether individuals within them are merely gaining societal validation from association with someone who can “afford” to become overweight.

This lack of concerted research is particularly damning given that in every single case in which a culture equates obesity with beauty that we could find, obesity was first and foremost seen as a sign of wealth. In cases in which these cultures got wealthier and were re-surveyed after this societal shift, obesity ceased to maintain its status as a good signal of wealth, and the societal predilection for fat people appears to have been unceremoniously dropped.

Consider how in modern Western societies, people would (on average) prefer a partner with a really nice car over one who rides around in a clunker. In such cases, the car does not actually turn people on; it simply signals a secondary sign of fitness (wealth). It seems that extra body weight played much the same role in some societies: People were not *turned on* by the extra weight; instead, they were attracted to the wealth it signaled.

As for the myth that people in Medieval Europe on average found obesity attractive: There is hardly any evidence for this outside of two painters: Peter Paul Rubens and Titian (Tiziano Vecelli). In modern terminology, these painters had what we would call a kink. Writings of their contemporaries make it quite clear that their society thought obesity was a sign of bodily weakness, which the society associated with spiritual weakness (gluttony). Some scholars attempt to argue that Rubens painted plump women in an attempt to highlight how far his society had fallen from the time of the greats, but this strikes us as a tortured argument, especially given that Rubens had a rotund wife who he seemed to find quite attractive given the fairly pornographic art he created depicting her (see: Hélène Fourment in a Fur Robe, a portrait of his second wife, or any of the pieces in which she served as a model, such as Venus, Mars and Cupid, Andromeda, or The Birth of the Milky Way). Why can’t we all just come together and say that dude was kinky, had a wife and lifestyle that enabled his kink, and spent his life in cheery pursuit of this predilection for rotund women? Even in our society, this is one of the most common kinks (as our data shows).

The only strong claim that an attraction to obesity at a cultural level was ever anything other than a predilection felt by a population’s minority comes from Venus figurines: Small figurines of obese women that date back to Paleolithic times. As we do not understand the context of these figurines, any larger associations are just conjecture. Even if these societies saw fat as a positive sign in a potential mate, it is likely because extra fat signaled wealth and abundance.

This is not to say men are never attracted to heftier women. Actually, 21% of men who responded to our study reported regularly consuming erotic content specifically containing overweight women. This suggests that the number of men in the US who consume porn depicting fat women outweighs (hehehe) the collective population of the nation’s 28 lowest-populated states. (Contrast this with only 2% of our female survey respondents who reported consuming erotic materials featuring overweight men.)

Also, while there is a range of weights men typically prefer across cultures, this range can be affected by environmental factors. Statistically speaking, the more stressed a man is, the more he receives sexual stimulation from heavier women. We would assume this is a response we evolved to search for mates with more fat reserves in times of famine. This tendency also indicates that, despite societal pressures to find skinny women more attractive, many men cannot be socialized away from finding rotund women more appealing when subject to certain conditions. You may be noticing a trend here: You cannot socialize someone to be attracted to something.

Just because socialization does not affect what turns people on does not mean socialization has no effect on sexual behavior. People may take action in their sex lives in an effort to project a certain self-image celebrated by society. That action may have nothing at all to do with arousal pathways. For example:

* A man may only date rail thin women because he believes it to be a sign of status.
* Many couples have more regular sex than they would have otherwise because they feel the need to prove their relationship isn’t dead.
* Many men seek out a high number of sexual partners merely to prove their virility to themselves.
* An individual may act as a sexual dominatrix to validate their sense of power or gain sexual partners they would not otherwise be able to secure.

This desire to fulfill certain self-images we were socialized to find valuable can skew data on sexuality.

One commonly reported attraction pattern may even be a product of self-image based socialization. Specifically, we are referring to attraction to intelligence (many surveys show people rank intelligence as one of the most attractive traits). When attraction to intelligence is a uniquely pronounced aspect of an individual’s arousal pattern, it is known as sapiosexuality. We say we suspect sapiosexuality is a product of socialization as there is no realistic pathway for the lower-order parts of our brain associated with arousal to judge a person's intelligence. Instead, we would need to process a person’s intelligence within the higher order, “socially informed” parts of our brains, which would theoretically prompt some other, older neural pathways to receive that judgment and yield arousal.

The likelihood that some element of socialization is at play with this form of attraction does not explain its existence entirely. A similar dynamic is at play in the system that outputs arousal in relation to social status. In fact, it is possible that—depending on a person’s social context and worldview—intelligence may be synonymous with social status and that sapiosexuality is an output of this status detection system (in the same way something like vore might be an accidental proxy for the dominance and submission system).

How can we make such a controversial claim so confidently? Because despite being one of the top ten things people report to find attractive in a partner, there is no widely popular category of erotic art that targets people aroused by intelligence (outside of pornography focusing on “nerd” tropes, which would be unlikely to arouse someone genuinely turned on by intelligence in isolation).

**To be clear, if true, this theory does not invalidate sapiosexuality as a sexual identity; it just implies that sapiosexuality would not appear in other cultures at equal proportions and if a sapiosexual person stopped respecting intelligence, intelligence would likely stop turning them on (which is not true for other forms of attraction, such as attraction to certain genders—if someone stops respecting men, they may still find men attractive).**

## Parental Screw-Ups

Stuff that happened to you as a kid does not appear to have a huge impact on arousal. In our study, we failed to find significant correlation between adult arousal patterns and childhood home conditions, family wealth, size of childhood friend groups, or family social status.[[26]](#footnote-26) Even seemingly-obvious factors, such as whether or not a person was spanked as a child, did not seem to affect whether or not spanking turned them on as an adult. We also found no connection between pre-pubescent sexual abuse and adult arousal patterns. This shocked us. For more detail, refer to the “Childhood Sexual Assault vs. Sexual Assault in Adolescence” supplement chapter on page .

When you ask someone (or they ask themselves) why they have an impulse that they don’t understand, their default answer is almost always going to be either “society made me do it” or “my parents screwed me up.” These answers allow someone with no understanding of how arousal pathways work to create a somewhat complicated-sounding explanation for the impulse, allowing them to feel smart. These answers are reinforced by the prevailing social schema that encourages people to create a narrative in which they are a victim with no agency. Almost everyone either wants to be a victim or hero (or in best-case scenarios, both); attributing distasteful arousal patterns to one’s upbringing makes it easy for people to play the victim.

People are extremely willing to accept the parental screw-up explanation for any arousal impulse that society considers taboo, yet they find such explanations extremely offensive for any non-taboo aspect of our sexuality. Consider how common an explanation bad parenting and “corrupting” societal influences (socialization) were for gay individuals when their sexualities were considered taboo—and yet it would be quite offensive to make such assertions today.

There is some vague cultural understanding that the socialization/parent screw-up explanation *really* exists to stifle exploration of the areas of our arousal patterns that we are not yet comfortable exploring as a society. As soon as society accepts an arousal pattern, the prevailing narrative swings from “my parents screwed me up” to “some people are just this way.”

This is not to say that nothing that happens to a person in childhood will have any effect on their adult sexuality—there are actually some studies showing that an effect is possible, which we will address shortly. We are merely arguing there isn’t a great evidence-backed argument to be made that one’s childhood will have a huge effect on adult arousal patterns. (To be transparent, when we first started to dig into this, we were so sure that childhood conditions lead to adult arousal patterns we wasted about half of our study on questions asking about them.)

### The Myth of The Childhood Abuse Cycle

On the topic of kids getting screwed up: It is often said that people who sexually abuse children themselves were abused as children, and this creates a cycle of abuse that explains why sexual abuse of children happens. This is another one of those weird Freudian “just-so stories” that somehow captured the popular imagination. We get why people want to believe that sexual abusers are primarily a product of sexual abuse. It would be very comforting if there were a clear reason why the people who abuse children do so. It would bring hope to believe that this abuse exists in a cycle that can be broken through active efforts. Sadly, such beliefs do not appear to reflect reality. Sometimes people just randomly abuse children—sexually and otherwise.

In interviews of more than 34,000 adults in the US, it was found that around 10% experienced childhood sexual assault. If 10% of the general population was sexually assaulted and around 23% of people who sexually assault children were themselves sexually assaulted, then we can assume being sexually assaulted approximately doubles one’s probability of sexually assaulting a child. If childhood sexual abuse had no effect, the percent would be the same as it is in the general population: 10%. This suggests that while being sexually assaulted as a child almost doubles one's odds of sexually assaulting a child later in life, the majority of people who were sexually assaulted do not assault children and the majority of sexual assaults on children are carried out by people who were not, as children, sexually assaulted themselves. (An important caveat: The stats presented here only look at male sexual abusers.)

In no way do these findings indicate a correlation between arousal resulting from the idea of assaulting a child and childhood sexual assault. These statistics merely show a connection between the behavior patterns that likely stem from the normalization of sexual assault. For information on how childhood sexual abuse affects adult arousal patterns, refer to the “Childhood Sexual Assault vs. Sexual Assault in Adolescence” supplement chapter on page .

We take time to call this myth out as it is wildly damaging to tell someone who was sexually abused as a child that they are now predestined to become an abuser themselves or that they are not safe to be around children as they will require enormous cognitive effort to not to sexually assault them. We hate the idea of childhood sexual abuse victims believing they caught the urge as though it were an STD or something that is so often peddled in our popular media.

## Social Taboos and Rule Breaking

The concept of social taboos inherently turning people on plays out constantly across pop culture. Perhaps it is a weird hold out from the Freudian period. There is virtually no evidence suggesting that rule breaking itself is inherently arousing, yet the narrative is so easy to understand and so prevalent in our society no one thinks to challenge it. If it were true that the act of doing something taboo itself activated an arousal pathway, you would see people turned on by any social taboo at approximately equal levels (in association with how taboo the activity is). This is not seen in practice.

Perhaps we have come to assume that social taboos incite arousal because teenagers, experiencing sexuality for the first time, simultaneously experience strong drives to rebel and break rules. The teenage drive toward rebellion likely evolved to encourage people to move out of their birth tribe as well as push boundaries—it is not part of a person's arousal pathways. At any rate, because teens are introduced to a surging desire to both rebel *and* have sex at the same time, people may have trouble parsing these impulses out and ultimately come to associate rebellion and boundary-pushing with sexuality.

In *The Pragmatist’s Guide to Relationships*, we do actually recommend getting a target partner comfortable by breaking social conventions with you before making a move. We recommend this not because breaking social conventions causes arousal, but because people tend to contextualize themselves as having a closer relationship with those with whom we feel comfortable breaking social conventions.

“Why, then,” you may wonder, “are so many kinks socially taboo?” A kink, as a concept, is literally defined by something you find arousing that is also a social taboo. Being gay used to be considered a paraphilia (the clinical term for an intense kink) in the standard diagnostic manual (DSM). Now, being gay is *not* considered to be a kink because it is no longer taboo—and those in our society who still see being gay as taboo likely would still offensively claim that it is a kink. Back when it was mainstream to contextualize being gay as a kink, there were actually people who claimed that the only reason people found same-gender relationships arousing was because it was a social taboo. Heck, when oral sex was less socially acceptable, one can even find mentions that the reason people enjoyed it was because it was taboo—something we now know to be absurd.

Kinks are always taboo—not because taboo things cause kinks, but because we use “taboo-ness” to define something as a kink. Continuing to attempt to explain away your sexuality with the easy just-so story of social taboos retards genuine personal exploration and your ability to predict behavior in others.

# The Impact of Gender Differences on Human Sexuality

Let’s explore disproportionately male and female kinks and turn ons. Many of these differences will deeply offend, trigger, and disturb readers. Even we, as dispassionate as we try to convince ourselves we are about these things, cannot help but find some of these tendencies concerning.

## Inconvenient Things that Arouse Females

The topic of gender differences in arousal patterns becomes increasingly uncomfortable the deeper you dig, so let's get the worst of it out of the way.

**First, a warning:** Many people, ourselves included, have trouble with the reality that women get disproportionately turned on by some dynamics that, for lack of a better way of putting it, are not in their best interest. It is tempting to want to believe that some external source forced this on them—that they were brainwashed by society to get turned on by things that hurt them. Alas, the data does not back this up. In fact, women who report being more secure with these controversial fantasies also report higher self-esteem.

We understand why the reality the data depicts is uncomfortable. In many respects, it runs contrary to basic human logic and acts as an affront to the ideal, enlightened societies we wish to create (or believe we occupy at present).

Face it: *Many* things about our sexuality are suboptimal, if not outright repulsive. It is infuriating that sometimes people involuntarily become aroused and orgasm when they are raped, which only compounds the emotional pain of the experience. It is horrifying that some otherwise-good people live with shame over becoming aroused when they see their partners cry. It is sickening that some murderers get aroused by torturing their victims.

You cannot control or choose which things arouse you. That which turns you on does not say anything about what you want to happen to you or how you think the world should work. The things that create arousing sexual impulses in your brain are just the things that create arousing sexual impulses in your brain. Because you cannot consciously choose these turn ons, they say nothing about you as a person. The character of a person can only be judged by the manner in which they allow their turn ons to influence their behavior.

At any rate, let’s dig in: Many kinks that are held by females at a higher rate than males involve submission or violence. Disproportionately female arousal pathways include: Submission, getting spanked, heavy bondage, being choked, being hit, being tied up, being raped, piercing, being a slave, and cutting.

While we have touched on this a few times, it bears repeating: 53% of females taking our survey reported that a partner acting dominant in a sexual context is very arousing while only 45% reported finding the naked male form very arousing and only 48% found the sight of a penis very arousing. **The “default” human female arousal pathway is not arousal from the idea of sleeping with men, but arousal from the idea of sleeping with a dominant partner** and more extreme submission fantasies are seen disproportionately in females.

Anecdotally, we have observed an unusually high number of female participants in the following kink communities (given how extreme they are):

* Human doll (acting like an object)
* Public use (a fantasy of being chained up somewhere public for sex)
* Painful/forced transformation into something not human (werewolf and vampire stuff are most common)
* Petplay (dressing up like and being treated like an animal)

We would be remiss to not mention this uncomfortable gender split goes both ways. For example, men are more likely to be aroused by hitting someone than women, as well as choking someone, owning someone, etc.—but this difference is far less pronounced and prolific.

This tendency for females to be aroused by submission and violence is further backed up by online porn search data. **A quarter of porn searches conducted by straight women involve searches for acts that depict male violence against women like “painful anal crying," "public disgrace," "extreme brutal gangbang," “forced,” and “rape.” Women search for porn featuring violence against women at more than twice the rate of men.** Dr. Seth Stephens-Davidowitz, a Google data scientist-turned-writer/lecturer, who conducted the aforementioned research, writes: **"If there is a genre of porn in which violence is perpetrated against a woman, my analysis of the data shows that it almost always appeals disproportionately to women.”**

Studies have also suggested that 31% to 57% of women regularly fantasize about being raped and 9% to 17% of women mark these as very frequent or their favorite fantasy experience (our data does not show numbers that high, but makes these numbers appear plausible)[[27]](#footnote-27). Heck, one of the bestselling books of all time—with a primary audience of women—was *50 Shades of Grey*, an erotic novel decried by almost all mainstream BDSM communities due to its extreme and abusive eroticization of sexual violence against women.

Upon going over these stats, one of our friends told us she didn’t care what the numbers said, they couldn’t possibly be true. When we pointed out that both her own mother and sister were avid readers of the *50 Shades of Grey* series, her response was: “Well, shit.” This more or less sums up how we feel about this, too.

The fact that any single woman may not exhibit these arousal patterns is irrelevant from the perspective of the larger data and understanding arousal pathways. We explore kinks that are present more often in one gender than the other to elucidate how arousal pathways develop holistically. We do *not* claim that all women follow this same arousal pathway.

A Warning: Don’t read the above and think we support dominance-based strategies for “picking up chicks.” These strategies, often promoted by pick-up artists, involve the use of dominance to secure relationships with female partners and are not the most expedient methods for generating happy, healthy relationships—or even just “getting sex.” We discuss the hazards of dominance-based approaches in excruciating detail within *The Pragmatist’s Guide to Relationships*.

**Notes from the Research:**

* A recent study showed dominant behavior is more highly correlated to mating success in males than physical attractiveness. This makes sense when you look at our research showing women on average are more aroused by dominance than the naked male form.
* Women tend to be more attracted to men who view females as pure and nurturing, but also weak and needing extra care (a concept known as benevolent sexism). That this dynamic can be displayed by a man who is not “socially backward” through historical fiction romance novels is likely a huge contributor to the success of the genre. On a similar note: The popularity of vampires in female sexual fantasies is likely due to a similar dynamic of being able to see oneself as falling prey to a man, but not because one is lesser than a *human* man—with the added benefit of being able to lose one’s agency through mind control, thereby being freed of responsibility for one’s total submission to a man.
* The most differential search terms used by women using Pornhub are “pussy licking” (viewed 260% more often) and “solo male” (viewed 222% more often). That said, females rarely consume erotic material through this format, so information from Pornhub is not likely to present super robust insights into female arousal patterns.

## Inconvenient Things that Arouse Males

We are keeping this discussion short, as we already explored the primary dynamic at play in men’s less convenient kinks, and we don’t suspect anyone is that surprised by them. The unsavory tendencies exhibited by men reflect what our society generally expects from kinky men.

Our polls were poor at putting a magnifying glass to the gender distribution of the rarer turn ons—they’re not common enough in the general population we surveyed. Fortunately, others have done the legwork on this, specifically targeting communities with less common kinks to get an understanding of the gender breakdown in a way that wouldn’t be represented in a general population survey like ours.

One thing you often see in these other surveys is that most “inverse system” kinks (getting aroused by something a normal person would find to be gross or a turn off) are overrepresented in males. In general, males are way more likely to find things that would gross out the average person hot when contrasted with women. This means that if someone is getting turned on by being farted on, rolling around in poo, having worms poured on their face, or sleeping with a sibling—that person is likely to be male.

We talk about the evolutionary pressures that we think might have led to this gender difference in the “Breeding Targets” subchapter startingon page . We hypothesize that the male brain’s “software” for flipping an attraction to an aversion can change an aversion to an attraction just as easily and through the same process, and that sometimes this “code” malfunctions and flips the wrong signs (these kinks are also observed in women—just at much lower rates).

Another big difference in male and female sexuality (though not an inconvenient one—for males) is that male sexuality is much more inclusive. For example, our survey results imply that:

* 21% of men consume erotic material depicting fat women, whereas only 2% of women consume erotic material featuring fat men—though this might be a subject matter issue, as only 1% of men included fat men in their interests while 13% of women included fat women.
* 23% of males consume erotic material featuring females of low wealth while only 18% of females consume erotic material featuring males with low wealth.
* 48% of men consume erotic material featuring people much older than them while only 34% of females do the same. (Another study showed the most popular ages men search for in porn are 16 and 18, followed by 50, 40, and 60.)

It is easy to attempt to dismiss these stats by claiming that men feature a greater diversity of erotic interests in general, but our data indicates this is clearly not the case when narrative forms of erotic art (like fanfictions and romance novels) are included in the dataset.

Finally, as we touched on when talking about inconvenient female arousal patterns, **males are much more likely to be aroused by scenarios that involve them hurting another person.** For example, 13% of males responding to our survey reported arousal at the prospect of hitting someone while only 8% of females did, 15% of males reported feeling turned on by tying someone up while only 7% of females did, and 7% of males reported feeling aroused by the thought of *actually* (not role-play) raping someone, contrasted with 3% our female survey respondents.

### Suppressing Inconvenient Arousal Patterns

If a person experiences inconvenient arousal patterns, surely they should just learn to suppress them . . . right?

While a person's arousal patterns do not reflect their values, morals, or logical desires, arousal patterns are not necessarily easy to suppress. Often against our logical, moral, emotional best interests, our biology conspires against us if we try to suppress them.

Study after study shows that suppressing one’s natural sexuality has many potential negative consequences. Specifically, suppressing an impulse decreases cognitive load capacity, thus lowering intelligence. Suppressing sexual thoughts decreases general cognitive wellbeing and increases compulsive sexual behavior (likely related to the specific modality of arousal you are trying to repress, but studies don’t separate these out).

Worse, studies have identified a rebound effect tied to the suppression of sexual thoughts: Suppressing a sexual thought increases the probability of subsequent preoccupation with that thought. Nevertheless, what choice do you really have when you know something that arouses you is immoral, maladaptive, and detrimental to society?

Fortunately, such maladaptive arousal patterns can often be indulged in harmlessly through fictional content. Contrary to a popular misconception, indulging in a fantasy through pornographic material makes whatever sexual impulse that fantasy indulges easier to suppress and makes a person less likely to act on that sexual impulse in real life. We go over this in more detail later in this book’s chapter on masturbation, but suffice to say for every 10% increase in internet access in the US, there is a corresponding regional decrease of 7.3% in rapes—and when porn was made legal in the Czech Republic, rapes declined by 37% in one year with similar results seen in Denmark, Japan, China, and Hong Kong when porn was made legal in those countries.

## Female vs. Male Erotic Material Preferences

One of the most striking sexuality-related gender differences is seen in the overwhelming female preference for narrative forms of erotic material. Mercifully, this gendered difference does not come with much political baggage and is generally well known.

Women taking our survey disproportionately prefer romance novels (f47% m4%), erotic young adult novels (f15% m4%), and erotic fanfiction (f17% m8%). Our survey’s male respondents differentially prefer visual representations of real people having sex, such as live action video (f53% m81%) and still photographs (f23% m59%). Note that we specify men’s differential interest in “real people having sex,” as reported consumption rates of hentai video in our survey was gender neutral (f13% m14%) (this really surprised us as we had assumed that hentai was consumed disproportionately by males).

Why is there this distinct difference in male versus female consumption of erotic material?

Some research suggests that women are more likely to encode emotions through the left amygdala, whereas men are more likely to process emotions through the right amygdala. The right amygdala enhances memory for the "big picture" of an experience, while the left amygdala enhances memory for peripheral details. This might explain the female preference for erotica and the male preference for visual pornography, as the right amygdala is more active in men viewing pornography while the left amygdala is more active in women processing erotic narratives. This could be tested were we to find men whose brains are more likely to encode with the left amygdala (vice versa for women) and see if they have a different preference in erotic material.

Our go-to hypothesis is a bit simpler. We suspect narrative-form erotic material is simply a superior method of conveying erotic content in both men and women. Men just consume it at lower rates because it is difficult to consume while actively masturbating and given the way male arousal systems work, men are likely to want to masturbate while consuming erotic content (e.g., it is hard to masturbate to the point of orgasm while reading a fanfiction, but easy to do so while watching a video or looking at a picture).

If this is interesting to you, flip to the “Erotic Material Exhibits” supplement chapter on page , in which we both look at the percent of females and males who consume different types of erotic material and dig into the general phenomena in more detail.

**Notes for Context:**

* One of the reasons the surveys we ran were able to ferret out a clearer view of arousal pathways than some past research is that it included questions about romance novels and erotic fanfiction. It is easy to look at a porn website and think: “Wow, men are into some weird shit,” while forgetting to look at a corresponding fanfiction site frequented more by women.
* We wish we could have explored in greater depth how men and women’s sexual fantasies shift in response to current events. Anecdotally, during the 2020 COVID-19 outbreak, the number of quarantine-themed erotic fanfictions (consumed primarily by female audiences) dwarfed the corresponding R34 anthropomorphized COVID-19 pornography (consumed primarily by male audiences). It's hard to make an apples-to-apples comparison with this type of thing, but still fun to think about.

## Do Men Really Have Higher Sex Drives?

The data (and we are talking about huge, cross-cultural studies of 200,000 people) makes it clear that men have much higher sex drives than women. This effect holds across cultures, meaning women’s lower sex drives are likely biological and not socialized. As with any heavily studied subject, you will find a few studies suggesting the contrary, but findings from the vast majority of studies with larger data sets align with this claim.

While the data makes it clear that women have lower sex drives on average, the data we collected also indicates that the diversity of kinks and things that cause arousal in women is no lower in women than it is in men. The average woman may not want sex as much, but is just as sexually diverse as the average man.

There has been a recent rash of authors and individuals fudging evidence in an attempt to argue that women have a higher sex drive than men. We find it bizarre that someone would want to misrepresent data merely to assert that women are hornier than men. Do those concerned with this difference equate low sex drives with disempowerment? Are their missions to somehow prove that women are super frisky carried out in an effort to empower women? This would be odd, as the belief that women’s sex drives were higher than men’s sex drives used to be a mainstream opinion in Western society—during the Victorian period, an age in which women were clearly *disempowered*. At this time, women were seen as dominated by their sexuality as they were supposedly more irrational and sensitive—this was such a mainstream opinion that when Freud suggested a core drive behind female self-identity, he settled on a desire to have a penis, and *that somehow seemed reasonable to people*. (See *Sex and Suffrage in Britain* by Susan Kent for more information on this.)

If the data doesn’t suggest that women have a higher sex drive, and if arguing that women have a higher sex drive doesn’t serve an ideological agenda, why are people so dead set on this idea that women are just as keen on sex—if not more—as male counterparts?

In the abovementioned study, **female variability in sex drive was found to be much greater than male variability**. Hidden by the claim, “men have higher sex drives in general” is the fun reality that, in general, those with the very *highest* sex drives are women.

To put it simply, some studies show that while the average woman has a much lower sex drive than the average man, a *woman* with a high sex drive has a *much higher* sex drive than a *man* with a high sex drive. Perhaps women who exist in the outlier group on this spectrum become so incensed by the normalization of the idea that women have low sex drives they feel driven to twist the facts to argue that *all* women have higher sex drives than men. “If *I* feel this high sex drive,” we imagine them reasoning, “it must mean *most women* secretly feel this high sex drive as well, but are socialized to hide it—I just need the data to show this to the world so they don’t have to be ashamed anymore.”

We suppose we can understand this sentiment. It would be very hard to live in a world in which few people believe that someone like you exists and people always prefer to assume that everyone is secretly like them rather than think that they are atypical.

Alternatively, the push back against the reality that women on average have a lower libido than men may just be an overreaction to an implication some people take from this—that women do not like, want, or enjoy sex. This is not true. Given how prevalent this myth is in our culture, and how it toxically suggests women are somehow deviant for enjoying sex or having sexual thoughts, we can understand the desire to fight it. We merely draw the line at blatantly spreading misinformation.

## Ovulatory Shift Hypothesis

The ovulatory shift hypothesis proposes that when women are fertile, they find men with higher genetic quality (or at least men with more testosterone) to be more attractive and when women are not fertile, they prefer men who are better providers. Some recent research challenges this hypothesis, especially with short-term pairings, but by and large the consensus is that the ovulatory shift hypothesis describes a real and significant effect.

A sexual therapist with whom we have consulted on this book suggested that some women make a point of tracking their cycles and the manner in which their arousal patterns change throughout them in an effort to gain a clearer picture of their exact sexuality and understand what they really need to satisfy their sexual needs. She also said she recommended men experiment—with their partners’ consent—with providing more structure (i.e., dominance) during times of fertility. (This seems a little extreme for us, but hey, you do you.)

Here are some additional weird shifts females appear to experience as a product of their ovulatory cycles:

* It has been shown that women are more assertive when they are more fertile—perhaps to provide more protection against unwanted advances when there is a risk they might lead to pregnancy.
* Female brain volume changes in sync with hormones. Specifically, the hippocampus increases in volume (both in grey and white matter) in lock step with rising estrogen levels leading up to ovulation.
* Women’s verbal and spatial reasoning is affected by hormones associated with the menstrual cycle. The effects of this are actually quite complicated, so if you would like to dig deeper check out: *“*Modulation of spatial and response strategies by phase of the menstrual cycle in women tested in a virtual navigation task*”* in *Psychoneuroendocrinology*.
* Women find men more physically attractive after the men have complimented either their possessions or appearance using metaphoric language (as opposed to literal language). This effect was observed to be stronger when the compliment was given to their appearance as opposed to their possessions. Interestingly, compliments on appearance using novel metaphors were preferred by women in a relationship during the fertile phase, but by single women during the luteal phase.
* Women evaluate their relationships more negatively and their partners as less physically attractive on days just prior to ovulation. Men also perceived their partners to be less satisfied at this time. Interestingly, the study that found this did not find support for the ovulatory shift hypothesis in the classical sense.
* Women are more likely to denigrate other women when they are more fertile. Specifically, Fisher 2004 showed when a straight female is more fertile she will give lower attractiveness to other females and Karlijn Et al 2012 showed younger (and thus more fertile) women engaged in more derogatory gossip about other women.

# Using Sexuality As A Looking Glass Into Our History

Now for the fun part: The “so what?” Armed with all the above information about human arousal patterns, is there anything we can tease out about the evolutionary pressures that may have created them?

## The Hazards of Evolutionary Psychology and Worshipping Past Cultures

Before we explore that which our present sexuality might reveal about early human societies, bear in mind that there is nothing morally superior about historical societal structures and cultural practices. An observation that people used to own slaves is not an argument we should go back to owning slaves.

It has become rather fashionable to believe that, at some point in our distant history, things were perfect, and if we could only get back to that time, things would be perfect again. Such trendy memes are what fuel the present impression among some that the invention of agriculture was somehow the beginning of the end of humans’ quality of life—as if we would somehow be better off living more or less like troupes of chimpanzees or bonobos, foraging for food, having sex, sleeping, and dying of parasitic infections without the distinct delicacies of culture, science, technology, or the uniquely human drive to advance.

It pains us to see people suggest there is credible evidence suggesting humans lived with less daily pain and illness in the pre-agricultural period than in a developed country today. Yes, the very first people living in agricultural settlements likely had a worse diet, more diseases, and worse living conditions than their immediate predecessors—but modern humans live an almost inconceivably better life than said predecessors. Consider one of the earliest near-modern human skulls we have: Cro-Magnon 1. The dude’s face was *literally eaten off by fungus to the bone while he was still alive*. A female living with him lived a portion of her life with a fractured skull and her brain hanging out. The fused neck vertebrae of others in Cro-Magnon 1’s cave suggests severe injury was common in humans living during that period. Trepanning, *literally drilling a hole in a living person's skull*, was such a normalized procedure during this period due to the extreme pain people lived with on a day-to-day basis that is found in 5%-10% of *all stone-age skulls.* We feel fairly secure in our sentiment that people who succumb to the instinct to worship past cultures are egregiously misinformed.

Beware the countless (and honestly enjoyable and entertaining) pop science books out there that cherry pick evidence and anecdotes in an attempt to argue that humans are either “naturally monogamous” or “naturally polyamorous” and proceed argue that if only people could go back to our supposedly natural monogamous / polyamorous / whatever state, the world would be a better place. These books shovel forth transparent agendas and make ultimately ridiculous arguments. Any honest look at history will reveal that those looking to create a perfect society should look into the future of our species—not its history.

Bring a critical and even mindset to any discussion of evolutionary psychology. While we adore how evolutionary psychology yields fascinating insights into how our current sexuality may have come to be and how it may work at a systems level, we dislike seeing evolutionary psychology used to justify fringe political ideologies. **Evolutionary psychology is about spinning interesting stories from scant evidence. Evolutionary psychology is for musing and entertainment. Evolutionary psychology categorically should *not* be the cornerstone of one’s political ideology or worldview.**

## Using Kinks to Find Clues Into Early Human Cultures

Back when I (Malcolm) worked in paleoanthropology at the Smithsonian, I was accustomed to seeing researchers bemoan the fact that we could never catch a glimpse of the social structures of early human groups. Researches regret that it is hard to know which, if any, of today’s “uncontacted peoples” (primitive tribes still living in isolation and untouched by modern society and technology) have social structures similar to those of our early ancestors. Time has passed as much for uncontacted peoples as it has for us—we can only expect that they, too, would have changed dramatically.

Are we really doomed to eternal ignorance of societal structures throughout most of humanity’s evolutionary history? After all, 98%+ of the time during which our ancestors have been human-like flew by before written records began to be kept. Groups before written records produced very few artifacts revealing the clues we normally use to learn about life, social structures, and relationships.

We propose there actually *are* means by which we can gather some evidence of early human tribal social structures—the academic community merely has not yet considered it. All one must do is explore (surprise, surprise!) internet pornography, smutty fanfictions, and romance novels.

Kinks do not develop out of thin air. If we find that humans statistically react in a predictable but peculiar way to a stimulus, and if we are fairly certain that reaction is not socialized, we can safely guess that humans who did *not* exhibit that peculiar reaction had fewer surviving offspring. By determining which behaviors lead our ancestors to produce more viable offspring, we can gather clues about their cultural practices.

While all our closest relatives’ tribes (bonobos, chimps, gorillas, etc.) do have “default” social structures and mating customs into which they sort, they also deviate from these set patterns, with individual tribes featuring unique cultures. We suspect early humans were the same. An investigation of kinks and the clues they send about past societies only indicates what would have been the most prominent social structure and relationship type in human tribes. Just as is the case today, early humans were grouped into many different tribes, which no doubt formed many unique social structures. There was never a time in history during which there was a “correct way” to be human that everyone followed.

## Were Early Humans Monogamous?

Did early humans have pair bonded relationships? Did they have long-term partners from whom they expected fidelity?

Questions about monogamy in early humans should be broken into two parts:

1. Were early human *females* expected to be faithful to a single male?

2. Were early human *males* expected to be faithful to a single female?

To understand why this clarification is needed, look at the default gorilla social group, in which females are expected to be faithful to a single silverback male while this single, dominant male breeds with any of the females he wants.

The testes of an animal relative to that animal’s size yield clues about the extent to which females of that species sleep with multiple partners, as males whose female partners sleep around need to produce more sperm in order to compete with the sperm of other males. Human testicles fall, on the relative size spectrum, between those of chimps (which have large testes and almost no expectation of fidelity from females) and gorillas (which have small testes and extremely strong expectations of fidelity from females).

There is also evidence from sperm morphology studies suggesting that humans produce significantly more abnormal spermatozoa in their ejaculate than chimp and bonobo males produce—but around the same amount as gorillas.

Some argue that the human male foreskin’s ability to act as a “pump” (in the sense that its shape facilitates scooping out ejaculate from a previous partner) means there was high sperm competition in our early ancestors. This is not a very strong argument, as most mammals have a similar penile sheath—even those with low sperm competition. Moreover, chimps, our closest relatives, have a very similar foreskin, suggesting it was a morphological trait our common ancestor had and our species never experienced strong evolutionary pressures to lose it. (Note: We couldn’t find whether gorillas have a penile sheath or not—and our dedication to this book's stops were Googling pictures of shaved gorilla penises starts.)

At any rate, findings regarding testicle size and sperm morphology imply that either early human females were somewhat faithful to pair-bonded relationships or that humans were in the process of transitioning between a species without an expectation of female fidelity to a species with an expectation of female fidelity.[[28]](#footnote-28)

The fact that human males have an urge to care for the children of their pair-bonded female partners serves as fairly strong evidence suggesting that **humans have historically experienced strong pair bonding with an expectation of female fidelity**. There is not a single intelligent species whose males care for a specific female’s offspring to the exclusion of the tribe’s offspring without some expectation of fidelity from that particular female. While there are some species featuring males that are generally caring toward the tribe’s offspring without expecting female fidelity, there are no cases in which a male bonds to only the children of a specific female with no expectation of fidelity.

While some human tribes conceptualize children as a communal asset and responsibility, we doubt there are many who would claim that it is not in the default human mental tool kit for a father to specifically love his own children very deeply and uniquely. Just because not every culture uses a tool sculpted by evolution does not mean the tool doesn’t exist. Some cultures lack the concept of romantic love; this does not mean that humans did not evolve the capacity for love at some point under specific evolutionary pressures.

The rather unique fact that human females do not visibly signal when they are fertile presents another piece of evidence providing hints into how early human relationship structures may have worked. Most of our closest relatives signal fertility with something like an inflated red butt to show all the males that a mating during said period is likely to end in offspring. Though human female behavior is influenced by hormone fluctuations and ovulation, these effects are subtle and certainly not broadcast publicly. The fertility-signaling trait common in our closest ancestors was lost far too quickly and way too thoroughly among humans to be merely a product of disuse. There must have been fairly strong selective pressures nudging women to hide periods of time during which they were fertile.

We can think of three theories as to how a woman would have benefited from hiding her fertility (from an evolutionary perspective). The first is that early human society was a complete sexual free-for-all and, in this free-for-all, early human females traded sex for resources. In such a world, women could get more resources if males did not know whether they were fertile or not. As this theory doesn’t fit with the data from sperm and testicular morphology, we are fairly confident it can be discounted as a possibility.

Our second theory behind hidden female fertility is inspired by an interesting study on gorillas conducted by the Mondika research center in the Congo. In the group of gorillas studied by this center, females have been observed faking fertility—even when they are already pregnant—when another, lower-ranking female is in her fertile period. This indicates that human females may have shed fertility signals to both block male access to other fertile females (by keeping male partners occupied with sex with them) and frustrate other females attempting this strategy. This would suggest early humans were polygynous like gorillas. We doubt this theory, as were this the reason behind humans’ hidden female fertility, we should also see a dramatic increase in libido among women in committed relationships—which we do not see. That said, this is a very interesting sexual strategy that would probably work among humans, so we are a little surprised we haven't seen more human females guard against infidelity by constant and frequent sexual aggression with committed male partners.

Our strongest theory explaining the lack of fertility signaling is that women experienced evolutionary pressures to trick males who are not the actual biological fathers of their children into believing that they *are* the biological parents of those children. This misdirection would allow women to secure resources for their children from men who make for optimal providers (think the wealthy-but-ugly man) while securing genes from men who were more genetically desirable, but perhaps less available to provide resources to offspring on an ongoing basis (think the hot guy stud who sleeps around a lot). This in turn suggests that, while there may have been an expectation of fidelity from early human females, they occasionally cheated with higher quality (from a genetic standpoint) males when they had a chance. This theory aligns with changes we see in human female arousal patterns during different stages of their ovulatory cycles.

We can argue with some confidence that humans have been “cheating” a lot and for a very, very long time. We cannot think of any other way the human female could have evolved a subconscious tendency to find lower testosterone males (with lower average genetic fitness) more attractive when they are *not* fertile and higher testosterone males (with higher average genetic fitness) more attractive when they *are* fertile.[[29]](#footnote-29)

While attraction to higher testosterone males during fertile periods in modern human women may be completely subconscious, it could not exist without women differentially being “genetically rewarded” for sleeping with one type of male over another when they were more fertile over tens of thousands of years. To put it more simply, there appears to have been a systematically rewarded behavior pattern in which a woman would convince a less genetically attractive male that he had exclusive sexual access to her and would use sex with him when she was not fertile to create a pair bond with him—while nevertheless becoming impregnated by a more genetically attractive male (likely covertly, while maintaining a resource flow from the less genetically attractive male). *This is not pleasant, but we really can’t think of other realistic things that could have motivated women to find less-fit men more attractive when they were infertile.*

What about males? Were *male* humans expected to commit to only one female, and if so, did they cheat on those females? The answer is complicated. It appears there may have been one mating pattern between 50 and 20 thousand years ago, another between 20 and 10 thousand years ago, yet another in the early agricultural period between 10 and three thousand years ago, and a final pattern between three thousand years ago and now.

We know this because of a great study: *A recent bottleneck of Y chromosome diversity coincides with a global change in culture.* It shows that about 4000-8000 years after the invention of agriculture, there was an extended period during which on average only one human male bred for every seventeen females that bred. While this ratio didn’t stay this extreme throughout the entire period, after looking at the data it would be very hard to argue that humans living between ten and three thousand years ago were not polygynous.

Think about it: One would really have to twist the data to explain the seventeen-to-one female-to-male breeding ratio in a society that was not polygynous. The only way we can imagine explaining this ratio without polygyny would be to argue that:

* A tribe of “Amazons” swept the globe, systematically killing most male babies during this period
* A disease arose that only killed males while leaving no archaeological trace
* Inter-tribal conflict (war) was so common—as was the use of exclusively male child soldiers—that only one in seventeen men made it to breeding age.

We don’t find these alternatives to be particularly compelling.

Research also indicates that a significantly higher portion of the female population was breeding when contrasted with the males between 20 and 10 thousand years ago, but the ratio was nothing as extreme as the ten-to-3-thousand-year-ago period. Data on the period between 50 and 20 thousand years ago suggests significantly more equity between male and female breeding rates.

If we were to extrapolate from current uncontacted tribal cultures and primate behavior to guess at what human social structures were like between 20 and 10 thousand years ago, we are probably looking at packs with a strict hierarchy run by dominant males, each with differential access to females, that are regularly attacked by outside tribal groups (more on this shortly).

When we venture back to the period between 50 and 20 thousand years ago, we really don’t know what we can reasonably deduce—it is hard for us to draw data on this period from either the genetic evidence or from modern kinks. Monogamy, polyamory, and about a thousand other systems could produce a pattern like this. We nevertheless doubt that the manner in which these earlier humans related to each other intimately would fit well within modern relationship definitions like monogamy and polyamory. There have been enough genetic bottlenecks since then that few of the behavioral impulses from this period still affect us as much as those from 20 thousand years ago to the modern period.

For the rest of this chapter, we will focus on the period 20 to 10 thousand years ago and the period 10 to three thousand years ago. At the end of the book, we will return to a focus on how the extreme polygyny of this second period transformed into the monogamous culture that is currently dominant.

The data suggesting that some form of polygyny (with a genetic bottleneck tied to it) was practiced between 10 and three thousand years ago makes a lot of sense given how humans seem to naturally sort themselves. A hefty 84.6% of unique human societies are polygynous. Yes, you read that right: 84.6% of human societies are polygynous (one man with multiple women), with only 0.3% being polyandrous (one woman matched with multiple men). Most of the rest are monogamous. Polyamorous societies are fairly rare.

We can also say with some certainty that Western society has not corrupted the data, either through the lens they are using to look at it or through colonialism, because a similar distribution can be observed in both historical anthropological sites and in travel descriptions written by pre-imperial writers in both the east and the west. When humans randomly sort themselves into small groups, more often than not those groups have a similar social structure, and that social structure is polygynous. All of our closest relatives, such as chimps, bonobos, and gorillas, also have default social structures into which they sort most of the time—even when raised in cultural isolation—so it isn’t surprising that humans would have a default social structure of their own.

If polygyny is the default human social structure, why do most people living today live in monogamous societies? In a sedentary, post-agricultural world, monogamous societies outcompete polygynous ones and thus the cultures dominating today’s political, social, and economic spheres are monogamous. Stats suggest that polygyny increases social unrest when practiced above certain population thresholds, increasing rates of rape, murder, terrorism, theft, etc. (This is not to say monogamy is the most stable model; others like polyamory have not been experimented with on a societal level, so we don’t have stats on how they would affect social vices.) We will discuss why this appears to happen in more detail at the end of the book, where we discuss how sexuality might affect the future of dating, as this recent monogamous period of human history likely had little impact on our genetics given how short it has been. For more information on this phenomenon, we recommend checking out the literature review: *The puzzle of monogamous marriage*.

## Gender Relations of Early Humans

We have fairly strong evidence the human males that historically bred most were the most dominant in their groups and that female dominance did not affect their ability to breed as much. We can infer this from the extremely low rates of women who report gleaning sexual satisfaction from acting dominant when contrasted with males and the extremely high rate of females finding it arousing when a partner acts dominant.

You may think it axiomatic that women do not need to be dominant to breed at the same rates as males, but this is not true for all species. For example, among packs of wild dogs, only the alpha female breeds, which suggests that engaging in dominant behavior is likely a turn on for most female wild dogs, as in wild dogs, a female’s dominance profoundly affects the number of surviving offspring she has.

Humans likely sorted into polygynous structures because, unlike wild dogs in which the alpha female is the only female in a pack to breed and does so in large litters, a human female can normally have at most two children per gestational cycle (and those gestational cycles are pretty long). Tribes of humans that experimented with a dominant female who acted as the only breeder would have almost certainly been overtaken by competing tribes who allowed more women to reproduce at once and therefore gained more human capital.

Within societies in which every female—but *not* every male—can breed, women who expend significant energy to climb a dominance hierarchy are not going to have significantly more kids than their less ambitious and submissive peers. This puts very little evolutionary pressure on females to get turned on by acting dominant themselves while simultaneously putting significant pressure on them to identify dominance in males and find it arousing, as a more dominant male will be able to more adequately protect her offspring.

We are deeply sorry to burst the bubble of any who wanted to believe that early humans commonly formed matriarchies. While we do not doubt that at least *some* small tribes for limited periods of time were (and are) matriarchal; we are simply stating there is little evidence that early human societies were matriarchal. We do not take Venus figures and some early religious traditions as strong evidence for matriarchal cultures, as despite the fact that ancient Greeks had some badass female Gods like Athena and Artemis, they barely even allowed their women to talk in public.[[30]](#footnote-30) **Signs of a religion focused on powerful females are not indications of gender equity in a society.**

The data we collected on differential gendered arousal patterns in modern humans shows it was probably worse for ancient women than even the above picture paints.

Consider the findings from our survey:

* People who get turned on from being hit: f26% m17%
* People who get turned on by hitting someone: f8% m13%
* People who get turned on by being tied up f45% m23%
* People who tie others up during sex f7% m15%
* People who get turned on by losing agency f17% m8%
* People who get turned on by the thought of being owned by someone: f28% m10%
* People who get turned on by the thought of owning someone: f12% m15%
* People who get turned on by cutting and piercing: f4% m1%

Since we have evidence supporting our theory that socialization isn’t playing a big role in human sexuality, the gender differences in those arousal patterns must be coming from somewhere else. The picture this paints of the lives of our early human ancestors is a little terrifying.

We suspect women in these tribes lived brutal, degrading lives. Ten thousand years ago, women were likely treated like livestock. Twenty to ten thousand years ago, women likely lived within social structures in which even a low-ranking male will be treated as superior to most females (you see this pattern in chimps). The kink patterns of modern humans reveal a genetic scar from lives in which women who received arousal from being property, being hit, or being bound, survived at higher rates than men with the same arousal patterns. We say this because we cannot imagine what other evolutionary pressures could have caused these kinks to appear at such high rates in women—they are really weird, creepily specific, and present in women from an early age (so again, they are probably not socialized).

There *is* an alternative to a bleak history in which women were more or less treated like chattel in their day-to-day lives. Just because women who were turned on by losing agency, being owned by someone, being beaten, or being tied up had more surviving children at a rate (differential to men with the same predilections) does not necessarily mean that such selective pressures existed in women’s daily lives. Arousal upon exposure to lost agency, slavery, and bondage could have evolved as a product of repeated bottlenecks.

For example, if 30% of women in this time period experienced violent turnover at only one point in their lives due to an outside tribe or group of males coming in and killing the existing males and their offspring, that could still be enough selective pressure to create differential arousal patterns. If a portion of the females in these conquered tribes got turned on by the experience in any way, the likelihood that they survived long enough to have more children in the future would almost certainly have been higher than the women who resisted.

This theory, combined with the other data we have presented, suggests that between 20 and 10 thousand years ago, many humans lived in tribes in which one male held a dominant role, but negotiated support from subordinate males. These dominant males had access to more resources and breeding opportunities than the less dominant males. Tribes likely treated females as subordinate to males but were not egregiously violent or physically abusive toward women of their own tribe (we assume this, as this impulse doesn’t seem to exist in men today in large volumes). These tribes were either occasionally attacked by groups of roaming bachelors or other similar tribes of both males and females. We think the latter occurred, because both males and females are (roughly) equally likely to be turned on by the idea of owning someone else (f12% m15%). During these attacks, males of the attacked tribe were killed, children were killed, and females who resisted were killed.

**Note from the Research:**

* There is a fascinating study from Paul Sabatier University—the findings of which conflict with some of our hypothesis, but we never want to be seen as obfuscating contradictory evidence to paint a simpler picture. Specifically, male horses and female horses do not (allegedly) show statistically different behavioral patterns in terms of “moodiness,” yet it is commonly believed among horse riders that male horses are less moody, which leads them to be preferred. What is crazy cool is that we can use DNA to go back and see when humans first began to exhibit this illogical preference for male horses and through that investigation, we can get some idea of when those groups started to form certain ideas about females in general (the idea that female horses were moody came from somewhere—and it wasn’t from the horses). Specifically, despite domesticating horses 5,500 years ago, the preference for males didn’t surface until 3,900 years ago. This is around the same time that Bronze Age men became much more likely than Bronze Age women to be buried with jewelry and other valuables—a tendency (this study claims) was not observed in Neolithic burials. However, this could be an illusory pattern more indicative of the beginning of mass husbandry of horses (in such a case, female horses would stay disproportionately at “breeding centers” while the disposable males would be more likely to be seen in the possession of “customers”). *(Note: Our horse friends say this study is BS, obviously motivated by politics, and conducted by people who don’t know much about horses. Apparently, riders prefer gelded horses and female horse behavior is a unique and obvious problem when they are in heat).*

## Chad & The Myth of the Alpha Male

Before we accidentally cultivate an obsession with dominance among our male readers, we want to highlight that a lot of misinformation is presently spread about “being alpha.” This misinformation is based on a misunderstanding of how dominance hierarchies really work in species in which multiple males are allowed to breed, such as wolves and chimps. In reality, the beefiest, strongest male is not always the alpha. The “real alpha” (with “alpha” being a colloquial term for the dominant male—the status of alpha male is not a real thing that exists in these tribes) is the male who can convince two other males, who otherwise have no chance of rising in the hierarchy, to team up with him to kill the beefy strong chimp/wolf/whatever who presently blocks their access to fertile females.

In these species, the males at the top of the social hierarchies are often quite generous and kind to their followers and those they believe can be convinced to follow them. In a high school context, the alpha isn’t the beefy meat head Chad Chadlington who bullies little Nigel Wilber; the Alpha is Mike Dexter, football captain and future astronaut, who protects the wimpy foreigner Nigel Wilber from Chad—with the implied agreement that after they kill Chad, Mike gets Chad’s girlfriend and all of Chad’s possessions, while Nigel gets to bone Sheena Simpson, the goth with bad hygiene who is secretly cheating on Nigel with Mike while she is ovulating (OK the analogy kind of breaks down, but you get the idea). Being alpha is not about being a beefy meat head; it's about being cunning, kind, and generous. Being alpha involves building social coalitions while publicly neutralizing anyone who actively challenges your authority and privately neutralizing anyone who poses a threat.

The “Chad” archetype of a young, beefy meat head who generally mistreats others, surrounds himself with other men, and otherwise bucks the larger social structure of his society does have a corollary in nature. If a Chad were anything in the wild, he would be a dominant member of a roaming bachelor group. Roaming bachelor groups are not “mopping up women;” they are disaffected males searching for a place in the world—for a tribe to accept them (thus why they disproportionately lie about having sex). Chads should be looked upon with pity, not seen as sexual competition.

## Early Human Warfare

Among groups in which a male gains authority by building a coalition, the evolutionary pressure from violent turnovers normally stems from strategies in which men gain access to additional females by conquering other tribes and killing off the male members of those tribes (as well as all their babies). This would explain why males who became aroused by violence against others and rape would have differently more surviving offspring than the females who were aroused by the same things. Sadly, this dynamic also explains why women who got turned on by the thought of being raped would have more surviving offspring when contrasted with men who bear the same arousal pattern.

We can even gain some insight into how one of these fights might have played out. One study showed that while men’s preferences for facial cues related to dominance in allies strengthen following losses (compared to wins) in violent contests, women’s preferences for facial cues related to dominance in allies weaken following losses (compared to wins) in violent contests. It is so neat that our instinctual preferences grant us an imprint of hundreds of thousands of slaughters favoring men who knew they were going to die if they didn’t double down in their support of the dominant male and privileging women who felt compelled to soften their support from the dominant males “on their side” as it appeared they might lose. While naturally not every fight went down this way, enough did that women who had one preference produced more surviving offspring while men who had another produced more surviving offspring, which ultimately produced the above gender split in behavior patterns when it looks like one’s own side is losing. In short, the conditions under which our species evolved rewarded men who doubled down in support of their team when losing a violent fight and rewarded women who began to consider switching sides when it looked like their team was losing.

Why do we think that raiders killed all the men of the tribes they conquered? First and foremost, this is a common behavior across species with harem-like social structures. Why? Because it makes genetic sense. Killing the male members of a tribe you conquer will grant your genetic material greater odds of spreading. What do you gain from keeping potentially dangerous conquered males around? And what do these conquered men gain (from a genetic perspective) from living if they have no chance of breeding? The conquered men would be almost certain to develop a strong genetic impulse to revolt were they to be denied their breeding rights, so it only makes sense to kill them. After all, this impulse to revolt in men who cannot access females can be seen even today in the higher rates of murder within polygynous cultures as well as the higher rates of terrorism seen in societies like modern day Egypt when social factors like an economic depression depress marriage rates.

Female attraction to violence is a very real strategy for a portion of the population. Virtually every serial killer has received tons of admiring love letters from female fans. These female fan letters dwarf the number of fan letters serial killers receive from male fans. Among tribes in which individuals still regularly kill other people, like the Yanomamo of the Amazon, men who have killed the most other men have the most wives and offspring, which suggests that, **in aggregate,** **women systematically prefer murderers as mating partners when not polluted by the “civilized instinct” to not want to be seen dating a murderer**. There is, nevertheless, a good reason why large societies do not celebrate murder: Once a human settlement reaches certain population levels, accepting murders on a societal level is not productive and thus cultural norms develop to isolate, shame, and otherwise neutralize murderers as social actors.

Why do we think raiding behavior was frequent? Human sexual differentiation in arousal tied to violence seems more baked in than most other gender-differentiated preferences. It would also seem that females’ tendency to be turned on by watching abuse against women is baked in uniquely deeply because it exists *despite* the fact today’s women grew up in a society in which they are told they should think less of themselves for getting turned on by being dominated and physically hurt by men. Women would only still indulge in this attraction at the levels we observe—in spite of the very strong societal pressure against it—if the selective pressure for it in our evolutionary history was very, very strong.

## Smashing Babies on Rocks

Why do we think that raiding males killed babies? For starters, this behavior is seen in 25% of ape species. It makes sense to kill a group’s babies to get the females ready to breed again sooner, as nursing babies delay ovulation in females. Even peaceful gorillas go nuts on babies and smash them on rocks when a new dominant male comes to town.

We also have behavioral evidence for infanticide—or at least a lack of care for non-biological-children among fathers—in modern humans. Just peruse the survival rates of kids with stepdads while controlling for other life conditions. Survival rates are WAY lower if a stepchild is an infant or toddler. Subconsciously, some male behavior leads to the death of very young step kids (a child living with an unrelated adult has *50 times*the odds of dying) and abuse is 10 times more likely when a stepparent lives in the home (though conscious self-interest may also contribute to this behavior).

The evidence suggesting baby killing that we find most compelling is actually biblical. The Old Testament has some of the earliest detailed accounts of what happened when ancient humans conquered a city and what they thought about that behavior. In the Old Testament, the practice of killing babies after conquering a city is actively encouraged: Psalm 137:9 “Blessed shall he be who takes your little ones and dashes them against the rock!” Not only is this exactly the way gorillas and chimps kill infants after deposing a dominant male (smashing babies against rocks), but if this were not an ancient tradition, we cannot think of a good reason for doing it. Killing babies by dashing them on rocks seems like a weird thing to do randomly when conquering a town, right? Humans in aggregate do not randomly commit unthinkable, violent acts without some benefit or cultural tradition behind them. For some reason, the first civilized humans believed that smashing babies on rocks was just part of standard operating procedure when conquering another group of humans.

A look at the behavior of recently contacted tribes, such as that of the Aché tribe, also supports a human infanticide instinct. Aché children of males who have died also die at much higher rates than children with living fathers. Infanticide is rare to non-existent in totally monogamous species with equal birth rates of males and females; there is just no strong reason to kill babies from a genetic perspective, which lends further support to the idea of early humans being polygynous.

This behavior presents strong evidence against early human societies being matriarchal. Species that tend toward matriarchies, such as bonobos, do not exhibit systematic male infanticide against children that are not their own (though they still show male bullying of other younger males—see the article: *Aggression by male bonobos against immature individuals does not fit with predictions of infanticide*).

## Female Promiscuity

The impulse driving many men to have sex with a large number of people is hardly a mystery from an evolutionary perspective. More sexual partners lead to more surviving children for men and more children lead to more of whatever behavioral impulse created those children. We have already addressed the core reason a woman would benefit evolutionarily from covertly sleeping with individuals who are not her primary partner, but let’s do a deeper dive into evolutionary pressures motivating female promiscuity.[[31]](#footnote-31)

Contrary to a weirdly popular belief in some academic circles, it is not an effective evolutionary strategy for a woman to openly have sex with a variety of men in an effort to obscure the paternity of her children and thus shield them from infanticide. Studies on the Aché (an indigenous hunter-gatherer culture in Paraguay sometimes referred to as a potential model of what early human societies were like) suggest this tactic is moderately successful when a child has two potential fathers, but when a child has three potential fathers or more, their risk of death increases dramatically. Essentially, males do not care about children that only have a 33% chance of being theirs any more than they care about children who have no chance of being theirs. In real-world scenarios, clouding paternity almost never leads to more investment from males of a tribe.

Contrary to popular belief, a female’s drive to promiscuity cannot be explained by a desire for genetic diversity in her children. After all, how much could genetic diversity in children possibly increase the survival rate of a woman’s children: Maybe 15%, max? In theory, increased genetic diversity in a female’s offspring will increase the number of children that survive some specific diseases, (or a few other extremely specific circumstances from which local genetic variation could protect offspring). The problem is that women in these historical contexts would not have typically been able to find multiple partners with genes different enough to differentially protect certain children—plus tribes would not often be afflicted by one of the rare diseases against which *some* humans are conveniently genetically resistant. Furthermore, any disease-resistant benefits gained from having kids with more diverse genes would be mitigated by sexually transmitted disease in cultures that didn’t have antifungals or antibiotics.

Even if women desire multiple simultaneous partners at lower rates than men, there still has to be some evolutionary pressure motivating that portion of women who do strongly desire multiple partners. While not a perfect proxy, we say women want multiple partners at lower rates than men because in our modern culture they “cheat” much less often (with numbers ranging anywhere from men cheating 30% more frequently to at twice the rate of women). Still, many things may motivate a desire for multiple partners that are driven more by socialization and self-identity than arousal patterns and evolutionary pressures.

We already addressed the biggest evolutionary motivation by far: Women throughout history evolutionarily benefited from straying in order to breed with a male with great genes (social intelligence, attractiveness, dominance, etc.) who could not be convinced to raise these women’s children—all while still enjoying the support of a caregiver who *is* willing to raise children he believes to be his (hidden fertility and ovulatory shift provide evidence of this pressure). We can see this evolutionary motivator represented in current female behavior. When women cheat, it is more often than not with individuals who are “hotter” than their primary partners while males will cheat with significantly less attractive women just as readily as they will cheat with more attractive women. However, there are a few other motivators.

Infidelity appears to be more common among people who have specific types of oxytocin and vasopressin receptor genes. Vasopressin is a hormone related to social behaviors, including trust, empathy, and sexual bonding. A whopping 40% of instances of infidelity in women and 62% in men are partially influenced by oxytocin and vasopressin receptor genes. In these cases, this push toward cheating is a bleed over of evolutionary pressures pushing for more Machiavellian social tactics in non-romantic contexts.

Finally, cheating is not always sexual. Emotional affairs also exist, with 5% of men and 35% of women having admitted to having an emotional affair. We suspect the larger number of women having emotional affairs is either a product of women being more emotionally aware of what they are doing (and thus being more likely to admit to it on a survey) or women having more to gain from emotional affairs than men. More specifically, the mental reward pathways for the narrative around a relationship are stronger in women, leading emotionally driven affairs to be more likely to pull them towards infidelity.

If you think any of this makes our female ancestors look predatory, put their behavior in context. At least they do not have a history of maintaining giant harems, raiding tribes, raping unwilling sexual targets, and dashing babies against rocks, right? Nobody comes out smelling like roses.

## Why Men are Aroused by Dominance

Even though men are aroused by dominance at lower rates than women, it is still worth asking why so many men find dominance arousing.

As to why women are aroused by dominance, the answer is fairly straightforward:

1. Having a dominant partner massively reduces the risk of infanticide (we see this in the Aché, with dominant males sometimes killing the children of other males for shits and giggles (well, that’s the best way we can think to translate some of the stories anthropologists report). These killings are likely driven by an impulse to augment the resources to which these men’s own biological children have access. Having wimpy Nigel telling someone not to kill your kid is much less effective than Mike Dexter.
2. In polygynous cultures, dominant males can get more resources and female partners, meaning that the genes that make them dominant will be passed on to their male children, thereby increasing the number of offspring those children have in turn. Women’s children are much more likely to have many descendants of their own if they carry the genes of a dominant member of their tribe, which increases women’s likelihood of finding dominance arousing.
3. Dominance is a strong proxy for good genes overall. If an individual has a strong drive to act dominant but lacks the physical fitness to back up the position they seek, they are likely to be killed or expelled from the group—or at the very least, fail to attain a dominant position within the group. Females can therefore be fairly certain the larger “genetic package” a dominant male offers is top notch, increasing women’s probability of finding dominant partners arousing.

Back to the question at hand: Why are around half of men aroused by dominance? Recall that while 70% of men get turned on by seeing their partners act submissive, 49% get turned on by seeing partners act dominantly as well (contrast this with women, of whom only 27% get turned on by seeing their partner act submissive while 75% get turned on by seeing their partner act dominant). Why are males more aroused by dominant partners than females are aroused by submissive partners? Why are around half of males aroused by seeing dominance in a partner?

Consider the high school analogy we presented earlier, in which dominant Chad got iced and at least wimpy obsequious Nigel got a chance to breed with Sheena the goth with bad hygiene. In a chimp tribe, most male members are submissive to at least one other chimp. One dominant male—future astronaut Mike Dexter in our example—typically depends upon the support of his troupe’s submissive males to secure his role. This dominant male rewards supporting males with access to females—who, per what ovulatory shift indicates, would then sometimes covertly attempt to impregnate themselves with the dominant male’s genes.

It would therefore make sense that male sexual strategy would be divided into a high risk, high reward dominance pathway and a low risk, medium reward submission pathway. This would lead to a sizable portion of the male population being more aroused by taking on subservient roles. It also explains why men with less money are more turned on by acting submissive than men with more money (naturally submission is the better strategy for men with lower resources, as they are going to have a hard time beating a male with greater resources when deploying a dominance-based strategy).

## Polymorphism

We could be either totally or partially wrong about everything.

If you take one particular species of cute grasshoppers and put them in a large group (or rub their legs for four hours with a Q-tip) they transform into the dreaded locust. Their behavior patterns and morphology completely transform into something monstrous. This is called polymorphism—and perhaps it has happened to humans.

Primates of a single genetic line can have multiple, entirely different “default” social structures that manifest depending on environmental resources and conditions (specifically we are thinking about Baboons here). Essentially, certain ecologies put primates into a different social “mode.”

What if humans work like this as well? What if we have a few different evolutionarily conditioned behavior patterns that appear in different circumstances? What if there is a switch in us at a young age that, through some environmental stimuli toggles on our ability to be sexually stimulated by dominance or/and submission? What if we are wrong about everything and socialization *does* really exist—not in a too-many-ads-depicting-skinny-women kind of way, but in an on/off-switch kind of way, triggered by weird things like childhood diet or your-family’s-perceived-position-within-the-local-dominance-hierarchy kind of way? What if something about post-industrial society is “switching” tons of women to a submissive stance—as well as many men, and therefore the distributions of arousal patterns we are seeing are not “natural”?

It would make sense: The two ecological conditions that most often cause a switch like this involve either growing up in a social group above a certain population threshold or growing up in a group that has a high level of access to resources. For example: Why risk dying to climb a social hierarchy if there are enough resources to go around? Wouldn’t it make sense for both males and females to differentially adopt submissive strategies in such an environment?

We got a little too excited by this line of thought, which ultimately inspired the survey we conducted and explore in depth in this book’s supplement. Sadly, through our surveys, we found no evidence of a polymorphic excuse—our ancestors were just monstrously terrible beings. (Though a preference for polyamory might have a polymorphic component in human females—more on that in *The Pragmatist’s Guide to Relationships.*)

At any rate, present human kinks paint a picture (albeit a rough one) suggesting that most early human societies were patriarchies featuring a dominant male who had many partners that were semi-faithful—as well as a number of submissive males who also had access to a female or a few females they believed were faithful to them, but who were, in fact, not. Our interpretation of the evidence suggests that groups would frequently raid other groups, kill their men and babies, and absorb their women.

## Bonobos

Some of our readers may be wondering at this point why we have not referred to bonobos, it has become popular to cite bonobo behavior as evidence that humans, in their natural state, would form free-loving, polyamorous, matriarchal communes. This view of bonobos has been aggressively pushed by those whose political agenda benefits from the belief that our distant ancestors lived in this kind of utopia.

First, we would point to the fact that women tend toward submissive sexual fantasies much more than men, that this tendency does not appear to be socialized, and male humans almost certainly have an infanticide impulse. This serves as fairly concrete evidence indicating that early humans did not interact like bonobos do (or at least how people *believe* Bonobos interact). Matriarchal utopias do not create evolutionary pressures nudging women to become turned on by violence against themselves or sexually aroused by men stomping on babies like Lucy McGillicuddy in a grape vat.

Furthermore, the concept of the peaceful, hypersexual, matriarchal, polyamorous bonobo is complete pseudoscience motivated by political fringe groups. Read *The Naked Bonobo* for a more in-depth review of the scientific literature about this species; it bucks the mainstream narrative (though it certainly has its own axe to grind). Real bonobo behavior is far more interesting than the myth and no less of a living nightmare than the situation we propose for early human social structures.

For example:

* There have been instances of female bonobos holding other females’ infants’ lives hostage in exchange for sex. (Imagine a woman picking an infant up by the head and threatening to wring its neck unless its unpopular mother went down on her.)
* While bonobo societies are more matriarchal than those of other apes, only males can inherit their mothers’ ranks and males can outrank females.
* High-ranking females will fight to increase the social status of their sons, but not that of their daughters.
* Low-ranking female bonobos trade sex for food, while high-ranking females never do. This implies that low-ranking females do not particularly *enjoy* doing this (i.e., they are being forced to be prostitutes to eat).
* Male aggression rates in bonobos are equal to those among chimpanzees.

There is no perfect society out there, hidden in the mists of our distant history, enjoyed by some undiscovered tribe, or orchestrated by another species of ape. People desperately want to believe that if they just travel far enough and pull back that last bit of dense foliage they will finally find, like some sort of social El Dorado, some obvious and easy utopia.

**The Pragmatists of the world know where our hidden utopia lies: It is not being lived out by some faraway tribe or described on a dusty tablet chiseled by our ancestors. Our ideal society lies in the future we have the power to create. Optimal societies aren’t easy, they aren't obvious, and they certainly aren't about following some simplistic ideological doctrine to the letter. An enlightened society will be nuanced, slow to build, and in need of constant experimentation. Citizens of a truly perfect society must update their beliefs about the world as they try new things to see whether they succeed or fail. No one alive today knows how to create this glittering society—not yet. The best anyone of our generation can hope for is to climb Mount Nebo and catch a glimpse of what might be. For now, we must be content with our lot as one of many diligently marching the desert. We cannot allow ourselves to be distracted by the glittering idols of simple, easy answers.**

**Every day we reap the rewards of ancestors who suffered so that our species might ascend from the total depravity of our primordial conditions and basal instincts. We spit on their sacrifice by not doing our part to advance the flame of civilization because it is that flame which holds back the darkness both in the world and within ourselves.**

*Yikes . . . we blacked out there for a second. Did we just go on another crazy rant? You can see we are literally driven to madness by the bizarre concept that we should rediscover and try to recreate our distant ancestors’ way of life.*

**Note from the Research:**

* On the topic of the bonobo myth: What happens when women rule an otherwise-male-dominated society? The real-world scenarios in which this has happened certainly defy stereotypes. A study investigating rulers between 1480 and 1913 found that Europe’s queens were 27% more likely than its kings to wage war, according to economists Oeindrila Dube and S.P. Harish. This is a fun historical nugget, though it probably doesn't say anything innate about female rulers. Queenly warmongering was more likely a product of the societies in which queens lived (as most things are). When you break the stats down further for married and unmarried queens, married queens appear far more likely to go to war (though unmarried queens had war declared on them more often). During this period of history, a married queen could socially pressure her husband's country to go to war with her to “protect” her while kings could not do the same with their wives’ countries as easily—making war slightly easier and thus more tempting for women. Still . . . neat tidbit.

## The Slave Race?

One of the wackiest revelations about humanity we had while writing this book occurred to us on a morning walk as we discussed selective pressures that might have given birth to certain kinks. Simone turned to Malcolm and asked, “Malcolm, are we a slave race? Are humans a slave race?”—and gosh darn it, it wasn’t a dumb question. The fact that such a juicy question isn’t a ridiculous line of thought compels us to explore it further.

Most of the selective pressures exerted on our species throughout our history were applied to servants, slaves, surfs, etc. Very few people are at the top of the totem pole. Historically speaking, almost everyone had a master and those few humans without masters didn’t have as many selective pressures applied to their cognition. If you mess up as a master, you probably still breed and your kids probably still survive, whereas if you mess up as a surf, you are screwed. Even in present-day situations with strict dominance hierarchies, the only way to gain a position of dominance is through becoming skilled at holding a subservient position (most of the time, people who become bosses get the job because they are good at being employees—not at being bosses).

Is it possible that humans are so optimized for subservience that they feel fundamentally uncomfortable with power when they ultimately luck into it? In the Great Chain of Being (a medieval hierarchical structure), even *the king* was understood to be a servant of God (and everyone else was a servant under the king, his direct reports, their direct reports, etc.). Modern presidents and prime ministers frame themselves “servants of the people.” CEOs of giant conglomerates talk about themselves as slaves to their shareholders. It seems the more power a person gains, the more they subconsciously try to frame themselves as subservient to a master.

Perhaps freedom is merely aspirational—not a burden which humans are optimized to shoulder. Perhaps forcing freedom upon a species that evolved to serve places a huge burden upon their shoulders and rips at the edges of their sanity, forcing them to invent fictional masters or slowly become burdened with ever-increasing anxiety, depression, self-doubt, megalomania, and narcissism. Perhaps robbing humans of masters creates unfillable voids at the backs of their minds.

There's an obscure, otherwise-unremarkable anime from the early 2000s called DearS (ディアーズ, Diāzu) that features a fascinating core conflict: Essentially, humanity’s first contact with intelligent extraterrestrials is with a crashed ship of a species genetically engineered to be slaves. These extraterrestrial humanoids feel deeply unfulfilled when they don’t get to live out this role for which they were designed, but given modern human societies’ prejudices against the concept of slavery, they end up hiding their nature from humanity and are forced instead to play the role of a magnanimous ambassador of peace and technology instead of their preferred role of slave. The show’s central thesis is the only type of freedom that matters is being able to choose who or what you are a slave to—that being in such a position is more enviable than *not* being a slave. We mention this show because it highlights a truth about our modern culture: It is fundamentally, deeply, uncomfortable with the idea of subordination being anyone's preferred state.

But of course, we couldn’t possibly be insinuating that humans have any parallels to this fictional alien race, right?

The survey we ran when putting together this book certainly surprised[[32]](#footnote-32) us on this point:

* Women taking our survey who reported being happy were also more likely to report assuming the submissive role in BDSM contexts (32% to 19%).
* The more unhappy our female survey respondents reported to be, the more likely they were to also report assuming the dominant role in a BDSM context (23% to 7%).
* While happy men taking our survey were slightly more likely to report being doms in a BDSM context (12% to 8%), they were four times more likely to report playing a sub (8% to 2%).

Could it be that the key to happiness, mental health, and personal fulfillment lies in service and complete dedication to a genuinely worthy individual, ideology, or vision of one’s choosing?

Western society has an obsession with power and an inability to tolerate any worldview that doesn’t strive for it above all else. Even groups that are presumably open to those wanting different things from life exhibit this deep discomfort: In the BDSM community it is not uncommon to hear people go on about how the sub is *really* the one with the power (a sub is the subordinate partner in a dominant-submissive coupling) and in the poly community, people frequently belittle the concept of someone “belonging” to someone else.

As we point out in *The Pragmatist’s Guide to Relationships,* the idea that all humans everywhere are always better off being their own masters seems to have emerged from Western cultural traditions and come into being fairly recently. This bias certainly did not yet exist at the time of The Great Chain Of Being. Favoritism of self-determination also does not seem to have been appropriated from Eastern traditions or indigenous populations during the time of colonialism.

Society’s present phobias around the surrender of power appear to be tied to the emergence of capitalism in the West and an association between power and wealth. This general phobia of power relinquishment could also be a reaction to chattel slavery, but we doubt this, as the idea’s spread aligns more with the ascension of capitalism than with any spike in chattel slavery.

Do we really think that humans are a slave race, languishing in cultures that grind us down, forcing us to saddle ourselves with the burdens of freedom and autonomy? Not really.

More of our species’ relevant evolutionary history took place in environments in which most socially oriented evolutionary pressures involved navigating small, local dominance hierarchies, which have nothing to do with slavery—though these structures did, nevertheless, sometimes favor those who knew their place and when to defer to those higher on the totem pole.

But damn if it isn’t a cool perspective we hadn’t heard before. And who knows? Maybe it is true. Maybe real freedom should be defined as getting to choose your master, be it a person, organization, or an ideal. Maybe true bliss can only be found when you find a worthy something to which you can holistically subordinate your life and needs.

# Human Sexuality’s Advanced Settings

Now that we have explored what arouses people, why various things arouse different people, and what human arousal patterns imply about our historical societies, it is time to start digging into some of our “advanced settings.” The following chapters explore how various systems interact with our higher cognition, some of our most basal human sensory systems, and each other.

Specifically, we will look at:

* How smells interact with arousal: Here we will go into evidence for the effects of pheromones in humans on both arousal and pair bonding.
* The concept of gender display impulses: A gender display impulse is a strong impulse to act out the role of a specific gender, like holding one's hands in a specific way, walking with a certain gate, and wearing specific types of clothing. While the impulse itself is not in the category of arousal, it does interact with many arousal pathways.
* How arousal pathways interact with moral judgments: Can an animalistic system like arousal really have a significant unconscious impact on higher-order judgments like the morality of an action another person takes?
* How a desire for validation affects the way sexuality is expressed in people: Here we will dig into the strongest driver of sex in humans—a desire for validation—and how this desire interacts with arousal patterns.
* How kinks express themselves: Finally, we will look at how all these interactions and the arousal pathways discussed above come together to form cohesive “kinks.”

## Olfactory Cues in Arousal and Pair Bonding

Do pheromones affect mate choice in humans? The answer is an overwhelming . . . *Probably*. Subconscious olfactory cues do seem to play a role in who one finds attractive, *however*, the effects are light. Olfactory cues should be viewed more as an amusing novelty and less as something around which one will be able to develop a meaningful sexual strategy. More importantly, many claims based on olfactory cues in arousal and pair bonding are probably bunk, such as the claim that human leukocyte antigen (HLA) system, a gene complex encoding the major histocompatibility complex (MHC) proteins, has a large effect on attraction. To be honest, the people doing much of the research in this field have a financial benefit in the public believing their findings due to various companies they started, which has us reviewing their work with an extra level of scrutiny.

If many claims about smells and arousal are false, what is probably true?

We can assume with some confidence that both men and women use their senses of smell to modulate both their pair bonding and arousal pathways—mostly in subconscious ways—with the effects being more powerful in women than men. People who are more sensitive to smell consistently rate their sexual experiences as more pleasant. This is true among both men and women. Women who are more sensitive to smell even appear to have more frequent orgasms.

Several rather famous experiments imply that we can use our noses to detect all sorts of useful information about a partner. The human sense of smell appears to be capable of detecting how symmetrical and thus genetically healthy a partner is likely to be, whether or not a woman is ovulating. Human smell also appears to be able to estimate the attractiveness of a particular subject with a fair degree of accuracy. However, one is unlikely to feel these subconscious effects enough to put a finger on exactly what is causing them. For example, when we say a man can detect when someone is ovulating by smell, what we mean is that men slightly prefer the smell of shirts of women who are ovulating, and that their apparent ability to detect the slight difference in smell between ovulating and non-ovulating women is strong enough that their preference for ovulating women’s shirts held as long as a week after the shirts were stored at room temperature. This slight preference for certain smells hardly suggests that men are sniffing out women as though they are bears.

Other studies’ findings suggest that when a woman is more fertile, she will find male smells more pleasant and may even release chemicals that increase the testosterone of her pair-bonded partner. Furthermore, women find the smell of attractive men differentially better when they are more fertile. In the context of mostly concealed human fertility periods, this suggests there was an evolutionary pressure for women to not always find more attractive men more sexually compelling, which adds to the already-mentioned evidence of a long evolutionary history of women pair bonding with one partner, then becoming impregnated by another (more attractive) partner.

Can we wear body spray to become more attractive? The answer is . . . sort of. There have been studies showing that people are more attractive when wearing certain body sprays and perfumes, but other studies performed using the same methodology without allowing the judger to smell the target observed the same effects. In other words, it is not the smell itself that increases attractiveness, but the smell’s effect on one’s confidence that makes one more attractive by changing posture and stance. That said, due to the close connection between smell and memory, smells can be used to elicit attraction from individuals through non-arousal pathways (e.g., wearing the same cologne as a father figure with whom the target had a good relationship could evoke trust, familiarity, or fondness).

**Random fun findings on smells from various studies:**

* A diet rich in carotenoids (compounds found in orange and yellow vegetables) appears to make sweat smell better.
* Some studies have indicated musk from the anal glands of animals can make men more attractive to women. Women are over 1000 times more sensitive to the smell.
* Androstenol, one of the female pheromones, makes people see things as “warmer and more friendly” when they smell it (even buildings).
* Male pheromones like androstenone have been shown to improve women’s moods, especially when they are ovulating.

## Gender Displays

Some humans appear to have an impulse compelling them to perform gender displays in which they act out a particular gender stereotype in an exaggerated fashion.[[33]](#footnote-33) Many species signal sex through behavior patterns and in humans, gender is often used as a social proxy for the sex of an individual.

Even though the current social cues we associate with being male or female are ephemeral and tied tightly to the society in which we live, subconscious systems for bundling social cues into “gender packages” appear to be quite old in that at least two gender packages can be observed in every culture ever studied, historic or modern (though it is not uncommon for cultures to have more than two). The gender system is so deeply pre-programed into the human brain that it frequently imposes itself on inanimate objects and abstract concepts—as can be seen by the fact that 40% of languages feature grammatical gender (English speakers encounter grammatical gender applied to inanimate objects most frequently when learning Spanish or other romance languages, but grammatical gender occasionally surfaces in English as well, with objects like ships being granted female pronouns).

Without some neurological system compelling us to see the word in terms of “gender packages,” [[34]](#footnote-34) it would be unlikely that a system like grammatical gender, which adds little utility, would be retained, evolve so frequently, and evolve independently (grammatical gender can be found in everything from the Indo-European language families to the Afro-Asiatic language families). [[35]](#footnote-35)

While it seems the primary purpose of “gender packages” was originally to serve as a proxy for the sex of the individual displaying them, the concept of gender also appears to have been hijacked to signal other social roles (especially in societies featuring more than two “gender packages” of behaviors).

We see the mental systems we use to pick up on these gender packages as being analogous to the mental systems we use to learn languages. As with our concepts of male and female, English is an evanescent product or our current culture. Though our distant ancestors did not use English to communicate, mental systems evolved in them that simultaneously facilitate our ability to learn English and, to an extent, compel us to learn it (children do not choose to learn English). Just as a person is subconsciously compelled to learn language from their environment at a young age, they also pick up their society’s “gender language” at a young age. In the same way babies feel an impulse to babble—or adults feel an impulse to yell an obscenity—a person might be subconsciously compelled to “blurt out” gender displays. And as with language, concepts of gender change with time and distance and may even be seen varying in the gender equivalent of regional “accents.”[[36]](#footnote-36)

While watching gender displays leads to a sexually charged arousal response, the brain pathways that drive us to make these gender displays do not appear to be sexual in nature (well, not usually; there are always exceptions such as transvestic fetishism in which a person gets aroused by cross-dressing). In other words, by and large, people do not appear to become aroused by acting manly or girly outside of the context of our association between these gender roles and dominance/submission due to cultural connections (this is called petticoating or pinaforing), however people *do* appear to be sexually aroused by seeing others make these displays. **In the majority of the population, gender displays are not motivated by an arousal pathway and are instead driven by an entirely separate impulse system.**

Male cross-dressing behavior is the most socially visible example of a strong gender display impulse. Importantly, cross-dressing rarely involves just wearing the clothing of another gender, but also entails acting out a full gender display, including everything from gate to vocal pitch and mannerisms. While many are tempted to assume cross-dressing is a sign of being trans or gay, it just so happens that the majority of cross-dressers are married, cisgendered, straight men, which makes the cultural trope of the cross-dressing gay man really strange. We assume this trope emerged from drag culture (which represents a vanishingly small proportion of the cross-dressing population)—because drag participants do skew LGBT.

We need to be careful when conflating drag culture with cross-dressing, as only a tiny minority of cross-dressers identify with drag culture. Moreover, not everyone who participants in drag culture feels the gender display impulse. For many, drag culture is a form of performance art that grants an opportunity to artistically explore gender norms. If we return to the language analogy, drag can be thought of as a form of “gender poetry”. Furthermore, drag is only one of many artistic traditions that involve cross-dressing. Just because someone is cross-dressing for art’s sake does not mean they are in “drag.” For example, Yarō-Kabuki (modern Kabuki theater) often involves cross-dressing, yet it has no cultural connection to the drag movement.

The apparent fact that most cross-dressers are straight, cisgendered men[[37]](#footnote-37) indicates that trans people are not trans just because of a gender display impulse mix-up. There is a huge difference between an urge to *make* a gender display and an urge to *be* a gender.[[38]](#footnote-38)

While some men appear to have kinks tied to cross-dressing that do activate their arousal systems (e.g. transvestic fetishism and pinaforing), a portion of cross-dressers make it very clear that this behavior is not activating their arousal systems but that some other impulse is driving them to engage in the behavior. We see no reason why a male cross-dresser would lie about this lack of arousal, as this is not a claim made by a large portion of those who openly indulge in any other “kink.” Given that cross-dressing is not activating an arousal system, but instead activating a gender display pathway system, we are somewhat uncomfortable even calling cross-dressing a kink. Instead, cross-dressing should be thought of its own unique thing, not tied to gender identity but also not tied to arousal.

Cross-dressing impulses seem to be tied to some innate brain pathway not working as “intended” and are clearly not a product of socialization. Straight, cisgendered men have not been taught by society to dress up like women in private. There is no social benefit to this behavior. That said, some gender displays cross-dressers choose to make are either socialized or made more compelling through conditioning, as a cross-dresser in the US will put on a very different display than one in Japan. If we return to the language analogy, cross-dressing could be thought of as comparable to Tourette syndrome (with Coprolalia) in that a Japanese person with Tourette’s will use different words than an American with Tourette’s—yet the underling neurological pathways compelling the behavior are the same. As with Tourette’s, the fact that the words being said are influenced by a person’s culture is not evidence that the behavior overall is a product of socialization (and comparing Tourette’s with poetry in that language—drag in this analogy—would be seen is wildly offensive).

Gender displays are also not merely under the jurisdiction of cross-dressers. We see gender display systems being manipulated by environmental factors even when they are working as intended (by “working as intended,” we mean signaling one's sex to the opposite sex using the proxy of our social concept of gender through behavior patterns such as tonality, gate, and clothing).

There is some cool research showing that females exaggerate gender displays (as measured through social media posting) in societies featuring high *income* inequality, but not in societies featuring high *gender* inequality. We imagine this is the product of some sort of polymorphic switch triggered by situations of high income inequality that lead women to prefer polygynous strategies to monogamous strategies. This makes sense given that, in a society in which one man has the wealth of thirty, it is evolutionarily better to be one of his ten wives than the sole charge of a poor man. This exaggeration of sexual displays in cultures with high income inequality means that such cultures present beautiful case studies of uniquely extreme gender displays.

One fascinating study suggested that in Western societies, men do not automatically sexualize women based on revealing clothing or bare skin but *do* sexualize women who are posing provocatively. This suggests that when a woman strikes a “gender display pose,” it triggers something in the male brain causing him to sexualize her entire gender display, including her clothing, meaning a gender display always consists of both clothing and body language and that body language is the trigger for sexualizing the clothing.[[39]](#footnote-39)

We enthusiastically encourage you to check out the pictures used in this study, as they make the results even more impactful. The study is titled: *Revealing Clothing Does Not Make the Object: ERP Evidences That Cognitive Objectification is Driven by Posture Suggestiveness, Not by Revealing Clothing.* If you don’t have time to dig up the study, we encourage you to consider instances in which you’ve observed people wearing little or no clothing and not sexualized them due to their postures (consider a naked woman in a medical textbook picture or a woman showing exposed breasts in a National Geographic article).

Bits and pieces of other research also seem to suggest that exaggerated gender displays are much more common among a population’s poorer groups and more valued as a sign of attractiveness within these groups. This is perhaps what fuels stereotypes involving poorer women displaying more exaggerated hip sways, longer nails, tanned skin, higher heels, longer hair, more ostentatious jewelry, etc. We are not sure why this would be. Exaggerated gender displays among the poor may be tied to the economic inequality predictor discussed above, but we do not think the dynamic explains everything about this difference, as stats from our survey show that wealthy western men prefer women with lower levels of female gender displays.

It seems to us (though this will be seen as controversial by some) as though the impulse for male gender displays in humans may be incredibly weak. As evidence for this, consider the relative rarity of straight, cisgender, *female* cross-dressers when contrasted with straight, cisgender, *male* cross-dressers. Contemplate the relative absence of studies showing how environmental conditions exaggerate male gender display behavior.

That said, anecdotally, it seems as though poorer men exaggerate masculine gender displays in a pattern similar to that presented by poorer women (with their exaggerated feminine gender displays). When we contrast image searches showing examples of “male runway fashion” against image searches showing examples of “male street fashion,” male runway fashion looks significantly more feminine.

The paucity of studies showing male gender displays changing with economic conditions could be explained by a dearth of research attempts, while the rarity of straight, cisgender female cross-dressers could be a product of women not being noticed so much when wearing male clothing. If a woman sometimes feels like wearing male clothing, we doubt she or anyone else would think of it as something worth noting. It may be that we simply don’t notice male gender display impulses as much as female gender display impulses, even though they could be just as common.

### Is Being Trans More Common Than We Think?

If being trans is not the product of a gender display impulse, what is it? As we mentioned at the beginning of this book, this is not a topic we will explore in detail. Not only is the research on this subject evolving quickly and the whole thing a question of self-identity rather than sexuality, but we personally don’t find questions around why someone might want to identify as a particular gender as interesting as questions about more perplexing stuff—like why someone may want to be a slave, watch someone die, have sex with an animal, or get turned on by seeing a person get eaten (all of which are *more common* than identifying as trans, which only 0.6% of the population does). In contrast to all the wild aspects of human sexuality, the gender with which a person identifies seems like a rather pedestrian point, which makes society’s intense focus on it quite bizarre.[[40]](#footnote-40) *(This is not to belittle the struggles trans people go through because of society’s wacky fixation on the topic.)*

Our intuition is that the factors that influence people to be trans make up a constellation of five or eight totally unrelated things that manifest similarly enough to each other that they cause individuals to be persecuted due to the same set of societal prejudices. By dumping all of these disparate factors into the same category and attempting to research them, the results will always end up muddled.

The concept of being trans is not the first concept that would have been grossly oversimplified by academics and professionals for a period; consider the widespread diagnoses of hysteria in the 1800s. Were this the 19th century, we would be saying: This thing called “hysteria” is probably at least a dozen unrelated conditions with superficially similar pathologies. During the 1800s, “hysteria” basically meant “women acting moody” and covered everything from clinical depression to ovulatory mood changes. As one might imagine, studying these usually unrelated factors as if they were the same basic thing would lead to garbage research findings. It also would not be the first time society did something like this. Back when we did not understand gayness very well, it was common to lump cross-dressers and gay people into the same category, when literally their only similarity is: “Sometimes they do something another gender does.”

Despite the concept of demigender being around for a long time, a huge blind spot we also see in the current state of trans research is an assumption in the way data is collected that most individuals who publicly appear cisgender strongly identify with the sex they were assigned at birth. Our intuition is that a large portion of what is thought of as the cis population is either not that attached to their gender or has a slight preference for a gender incongruous to their birth sex and just maintains their cisgender expression to fit in.

Sadly, we can’t use the prefix demi to refer to this group as we suspect a lot of them change their preferred gender and “demifluid” can mean something totally different. Thus, let’s use the term “soft“ (e.g., soft-trans, soft-cis, soft-genderfluid, etc.).

This concept matters because we suspect this soft-gender group wildly outnumbers the trans population and may even outnumber the “hard-cisgendered” population. When you look at communities in which people have a choice of gender expression, be they online video games, D&D sessions, or furry conventions, you see fairly high rates of people assuming identities as another gender. In online games, 23% of men prefer to roleplay as females and 7% of women prefer to roleplay as men, meaning an average of 15% of the population prefers to roleplay as another gender. Given that 0.6% of the population identifies as trans, this suggests that roughly 14% of the population *might* have a slight preference for sometimes identifying as a gender different from the sex they were assigned at birth when given the chance to do so recreationally. *(*Naturally other things drive desires to play other-gendered video game characters, like getting to look at the opposite gender’s butt all day, but you get the idea behind this thought experiment.)

You may be thinking: “Hold on—a desire to roleplay as another gender in a game is nothing like being trans.” As people who do not feel a strong connection to our genders, we have a hard time trying to mentally model what it would feel like to be trans, so we have to go on what trans people say about their experiences.[[41]](#footnote-41) In a number of stories, we could find trans people first came to terms with their gender identity through games or other roleplaying environments.[[42]](#footnote-42) Given these reported experiences, it would seem irresponsible to dismiss that a large chunk of the population that would otherwise be thought of as cisgendered feels more comfortable role playing as a gender that doesn’t align with the sex they were assigned at birth. We should at least humor the possibility that some of the population may have a very “low volume” gender identity instead of assuming that a gender identity is only valid when it is at “max volume.” We know that demigender and agender people exist; is it really that offensive to think that a portion of the population may exist somewhere in between these states? If such people did exist and grew up in a culture hostile to trans identities, how do you suspect their identities would present themselves? To us it seems they would look for opportunities to experiment with other genders in contexts in which they felt protected by prevailing social

norms.

|  |  |  |
| --- | --- | --- |
|  | **Female** | **Male** |
| 1 | **14%** | **15%** |
| 2 | **10%** | **6%** |
| 3 | **11%** | **15%** |
| 4 | **20%** | **15%** |
| 5 | **45%** | **49%** |

We dove deeper into our musings on this front with the survey we ran, asking the respondents who identified as cis: “How attached are you to your current gender? In other words, would it bother you if you learned you had to live the rest of your life as another gender?” Participants then answered on a 1 to 5 scale using a slider with 1 indicating the low end of the sale (that it would not bother them at all) and 5 indicating the high end.

These results suggest that over half the population is not extremely attached to their gender. In addition, our survey suggests that, as we suspected, people who have little attachment to their gender are actually super common, making up 24% of females and 21% of males.

This finding suggests that agender people—people who do not identify with a gender—are 24 times more common than people who identify as trans men and women. *To avoid confusion: Agender is different from neutrois, which describes an attachment to being genderless and androgyne, which describes an attachment to some aspects of both male and female genders (though how specifically these words are used varies from group to group and individual to individual).*

In addition to being interesting, these results have a few important implications for trans individuals, and one in particular that stands out: Attempting to generate sympathy by asking others to “think about how it would feel if you had to live as the other gender” is highly likely to backfire if you ask said hypothetical question to an individual who would not care because they do not have a strong attachment to their gender, which you have about a one in five chance of doing.

*As we mentioned earlier, gay people run into a similar problem: Studies show individuals who have low sex drives are much more likely to be homophobic, presumably in part because the argument: “Imagine what it would feel like if you had to live your whole life pretending to be attracted to a gender you are not attracted to” does not resonate with them in the slightest, seeing as the scenario simply wouldn’t bother them that much.[[43]](#footnote-43)*

Based on the data discussed, we suspect that the soft-trans and soft-genderfluid groups make up roughly 14% of the population, the agender population makes up ~15% of the population, and the soft-cis population comprises approximately 20%, while those traditionally thought of as cis people only make up around 50% of the population (with the other 1% being comprised of those with other non-binary gender identities and trans individuals).[[44]](#footnote-44)

### The Mating Party Impulse Hypothesis

While contemplating the gender display impulse, we find ourselves wondering if humans have other non-sexual impulses meant to aid in mate acquisition. Let’s call an additional impulse that might exist “the mating party impulse.”

Across cultures and time, humans have independently developed a type of party that looks remarkably similar—in which people cover their faces (often with animal masks or masks representing other fictional entities), adopt different identities, and dance to music at night. From masquerade balls (the type held in the late medieval period—not the modern interpretation) to furry conventions, the Bal des Ardents, bugaku, and the tribal dances of the ancient Americas, Africa, Europe, Australia, and Asia, this mating dance impulse can be seen. We even see what could be parties that look like this in some of the earliest human records (hieroglyphs).

These gatherings do not seem like a natural thing for so many disconnected cultures to develop in isolation without some deeper instinct compelling such behavior. We wish this were an impulse we felt ourselves so we could attempt to isolate it and identify the mental or sexual system to which it feels closest. Still, we are absolutely delighted by the insinuation that “fursonas”—the alternate animal identities furries take on when in costume—might epitomize a deep, cross-cultural human impulse.

## The Effect of Attractiveness on Moral Judgments

We often think of arousal patterns as existing in a vacuum—or at least only affecting things like mate selection. However, arousal patterns can have a massive impact on even the highest orders of cognition, such as those involved in judging what is moral and what is immoral. The effect of attractiveness on the public’s perception of morality is a well-studied phenomenon. To keep it short: Studies roughly show a 100% to 300% increase in the sentencing of unattractive individuals by judges.

Some studies suggest that a perpetrator’s attractiveness mostly influences *the punishment deemed appropriate* rather than a verdict of guilt or innocence (this is seen disproportionately when a judge is making the decision), while other studies indicate that attractiveness affects perception of guilt or innocence as well (this is seen disproportionately when a mock jury is making the decision).

In rape trials, defendants are seen as being more likely to be guilty and deserving of a harsher sentence when the victim is more attractive. Conversely, the perpetrator is often given a less severe punishment and is less likely to be found guilty when they are more attractive.

We see mixed findings from studies investigating how the attractiveness of a rape victim may affect others’ perceived responsibility for their own rape. Some research suggests that attractiveness has no effect, while other research suggests that white victims are judged as more responsible for their own rape when they are *more* attractive and non-white victims are seen as more responsible when they are *less* attractive. Sometimes society is more reprehensible than kittens in a wheat thresher.

## The Role of Validation in Human Sexuality

Despite all our discussion of arousal and different factors that influence an individual’s sexuality, we must point to what we see to be a huge elephant in the room: Sexuality, as fascinating as it is, is not the primary motivator for sex in humans. Heck, sexuality is not even the primary factor explaining how we conceptualize ourselves as sexual beings. As is the case with almost all areas of life, the thing that drives most human behavior when a person is living on autopilot (as most people are) is a drive for self-validation.

**While socialization cannot affect what actually arouses you, it *can* affect the sexual acts in which you partake, which partners you choose, and how you react to sexual arousal.**

People maintain mental character sheets detailing who they think they are and who they want to be. When humans operate on autopilot, not consciously thinking about their actions and thoughts, most action is driven by how we subconsciously think these internal characters should react (e.g., “I am a wholesome patriot with two kids and a loving wife; how would a wholesome patriot husband and father react to X?”).

Our desired self-images have such a profound effect on our sexuality that even in private, many people who find themselves aroused by unusual stimuli do not act on those impulses out of a fear of seeing themselves as a deviant. Simultaneously, others may engage in sexual activity which they personally find actively aversive to play out a self-identity that should find such activity arousing.

The human drive to act out an ideal internal character manifests quite colorfully on the kink front. Someone aroused by humiliation, submission, and pain whose internal character is culturally conservative and by no means deviant would be unable to explore these arousal pathways through BDSM practices, seeing them as deviant. Such an individual may ultimately settle on a spanking kink, as they find spanking to be the only way to exercise that arousal pathway while also still believing they are a wholesome, culturally traditional and respectable person.[[45]](#footnote-45)

Different default self-images (the bases of those internal character sheets we subconsciously reference when reacting to various scenarios) are imposed on men and women who do not consciously decide what they value and what sort of internal self-image will help them best maximize those values. While we can’t find robust data systematically naming, organizing, and validating ideals imposed on women and men, we have seen common gender-based standards cause serious problems for each gender and would love to highlight some in the event it might help some readers evade certain traps.*Just keep in mind that the trends we observe are pulled from qualitative, self-reported experiences (mostly collected unscientifically from a broad range of reddit threads and YouTube videos in which people share personal details about their lives).*

**Women:** In general, women are socialized to want to be desired/wanted by individuals they respect. In addition, most women in modern Western societies (further motivated by current political trends) feel a strong desire to see themselves as independent and in control. This desire often comes into conflict with submissive arousal pathways common in both females and males.

**Men:** In general, men are socialized to want to be virile protectors who are needed. When men are single, being virile means having sex with a multitude of high-value women who, ideally, come away amazed by the interaction. In marriage, male virility means having a wife who other men envy. Note that, from the perspective of validation, it is irrelevant whether a man himself finds his wife or sexual partners attractive. A man who may feel genuinely sexually aroused by obese women will receive less validation from an extremely overweight partner should she be low value on the open market. Men raised in more conservative environments will also have a desire to see themselves as dominant (which, again, comes into conflict with submissive arousal pathways common in both males and females).

It is hilarious how society has tried to reconcile the fact that women are socialized to want control/independence while men are socialized to desire dominance, as these desires conflict (not *everyone* can be in control and dominant). This mismatch produces bizarre tropes of families in which the male is *technically* dominant, but the woman ultimately controls everything he does. We see this as comical, as with the slightest bit of critical thought, a person would see how toxic such a dynamic would be.

Another toxic result of modern societies’ current models is exemplified by people using sex to feel desired. The negative consequences of this can be seen on the lips of every person who has bemoaned having been “used for sex”—a phrase that really means someone expected to get something other than sex from the sexual interaction. People complain about being used for sex when they intended to trade sex for something and feel they didn’t receive a fair trade. When probed to elaborate on this complaint, people usually explain they expected to feel desired—that they wanted to feel treasured in exchange for sexual access yet did not feel as such after the encounter. This is a sad scenario, but the hypocrisy of this complaint is humorous in light of the fact that those making it had just planned to use another person to harvest an emotional state themselves—that of feeling desired/wanted. The “using” goes both ways.

Both men and women often tie the frequency with which they have sex to some sense of self-worth or their estimation of a relationship’s health when it is not at all unusual for there to be periods in a relationship in which sex just isn’t of much interest to the parties involved. Even when a relationship experiences a real sexual problem, it is probably best to contextualize it as a technical, sexual issue and not some larger issue in which a particular partner is at fault.

A man’s desire to be sexually active with many high-value women who are amazed by his performance also leads to destructive and darkly amusing consequences. We have witnessed men expend more effort on harvesting the emotions they get from knowing they got their partner to come than actually attempting to give a partner what the partner wants. We have also seen men choose to have sex with women when they clearly did not find those women or that sex arousing, all because doing so allowed them to feel virile.

It is probably best for wellbeing if one views any sexual problems as just isolated sexual problems rather than larger issues for which one or one’s partner is at fault. One study, published in the *Archives of Sexual Behavior*, found that women who contextualized themselves or their partners as the cause of sexual problems tended to have a lower wellbeing. In contrast, women who saw any problems as specifically sexual tended to report higher wellbeing.

## How Kinks Express Themselves

“Kink” and “paraphilia” are words given to any stimulus culturally considered socially deviant that sexually arouses some portion of the population. This strikes us as a very silly way to separate out aspects of normal human sexuality.

Essentially, something is a kink until society accepts it. Being gay was a paraphilia in the DSM until 1973 and sadomasochism is likely on its way out of the DSM now as well. Being gay lost its kink status as soon as society (on average) accepted it. BDSM is losing its kink status because it is becoming more mainstream. **Any kink/paraphilia designation is more useful in understanding a *society* than it is in understanding *human sexuality.***

If our theory on what functionally causes “kinks” is correct, things that we generally consider to be single kinks are likely only superficial manifestations of more varied and nuanced sexual arousal pathways. For example, fat admirers—a group we have referenced repeatedly in this book as they represent, by far, one of the most common kinks—are likely comprised of people driven by three or four unrelated arousal pathways (which can overlap in a single person—one individual could be turned on by all of these pathways at the same time).

The first subgroup is comprised of people who either don’t have an aversion pathway tied to individuals who deviate too much from a medically-recommended BMI or whose pathway is set to an inverse position (we presented evidence for this group earlier in the book when sharing how, on average, men who report finding women far over a “normal BMI” to be attractive are also much more likely to report finding women far under a “normal BMI” to be attractive than the control group). Another subgroup features feeders, who become turned on by feeding a partner and seeing the results of overfeeding a partner. Feeders receive pleasure from the “emotional states and concepts'' category of impulses (this is arousal from an early evolutionary pathway involved in social groups). The third subgroup is comprised of a type of dom often classified as a feeder who gets off on creating a partner that is unable to fend for themselves or survive without them. A final subgroup is made up of subs who interpret the feeling of being crushed during intercourse with their partner on top with domination or just having a partner much larger than them as being a proxy for submission. These people might like to be laid upon by an overweight partner (sometimes called a squasher). Thus two individuals who both identify as having the same kink might have entirely different sets of underling arousal patterns, some of which we may not have mentioned here.

**A precise understanding of what drives sexual impulses can empower one to more easily maximize them.**

Another good example of a kink that is likely composed of several different arousal pathways is vorarephilia: A kink in which a human receives an arousal impulse from observing a predator-prey relationship—typically with the interaction ending in the prey being swallowed whole and not otherwise injured (this is referred to as “soft vore,” a simple example of which would involve a snake eating a mouse it did not crush, which contrasts with the rarer “hard vore,” which involves more fatal scenes—like a lion eating a zebra). While there is likely a core group of people genuinely getting off on the concept of the predator-prey relationships, other arousal impulse pathways that cause the proliferation of this category of porn include getting off on the extreme dom-sub nature of predation, getting off from a sign flip in the necrophilia aversion impulse, getting off on the “feeder” pathway discussed above, and getting off on activating a supernormal stimulus for the concept of “being inside” someone (the subconscious reasoning being: “if part of me being inside a girl is good, *all* of me being inside a girl is *better!”*). Despite these highly divergent arousal pathways, all these various subgroups may receive sexual stimuli from illustrations of a person being “fed” another person whole. That these various groups are targeted by similar erotic art leads to the categorization of “vore” as a single kink.

Consider also bimbofication, in which an individual is transformed into a female exhibiting an extremely exaggerated gender display. Typically, bimbofication starts with either a man or a woman who looks professional being forcibly transformed into a vapid-looking and vapid-acting “bimbo.” This transformation would activate arousal pathways as varied as the dom/sub pathway (due to the forceful nature of the transition) to those associated with breeding target detection through gender displays. Observation of the bimbofication process may even activate pathways associated with impulses that cause some men to desire to make female gender displays. Again, multiple arousal pathways end up getting categorized as a single “kink.”

We cannot get over how fun it is to search through random and weird types of porn and try to determine what about it could be arousing to someone. Sometimes you just find something uniquely weird and all you can think is: But why??? Consider, for example, the following categories of porn: people stuck in quicksand, people compressed into cubes, and oviposition (people implanted with eggs). We see each of these as a bizarre puzzle that, if put together correctly, could present profound insights into how the human brain is really processing stuff by showing us how it can “break” in a way that yields these fascinating interests.

What about the mysterious case of the Minnesota Popper—the man who apparently got off on popping exercise balls? This man could be exhibiting a confluence of the looner kink (people who are aroused by balloons) and a popping kink (people who are aroused by seeing things pop). These kinks may be tied to early emotional pathways of anticipation and release though different people in these communities interpret their arousal differently. The Minnesota popper likely built a connection between this anticipation and release cycle and poppable objects. Exercise balls gave the Minnesota Popper access to a supernormal stimulus within this category. This is how a system that was supposed to get him to breed led to his breaking into buildings to pop exercise balls.

### The Omegaverse as an Erotic Genre

Sometimes multiple sexual expressions and kinks coalesce into a single genre of arousing material. A great example of this can be seen with A/B/O—also known as the Omegaverse genre. Born from fanfiction and consumed by a primarily female audience, the Omegaverse presents a fictional, alternate reality. Works dabbling in this genre often divide their worlds’ inhabitants and characters into three types (each type can be either male or female).

* **Alphas**: This class is capable of impregnating others and features a penis that forms a knot during intercourse (an aspect of canine anatomy that prevents physical separation once mating has started). Female alphas can grow a penis. Alphas are typically depicted as being more aggressive, possessing higher status, exuding a strong musky smell, and producing unnatural amounts of cum.
* **Betas**: This class presents what we would think of as “normal” males and females.
* **Omegas**: Omegas are (regardless of gender) self-lubricating and capable of becoming pregnant, often going into heat and releasing pheromones making them irresistible to alphas (alphas can also become irresistible to them, creating cases of dubious consent). Often Omegas are smaller in stature, more submissive, sweet smelling, and more nurturing, especially to children.

This alternate reality amps up everything associated with traditional gender roles but dissociates these exaggerated roles from gender. Here we have a society run by a dominant, aggressive—somewhat “rapey”—class that is capable of impregnating others (be they male or female) and within it lives another group that is submissive and capable of bearing children (regardless of whether they are male or female).

Why would someone develop a world like this? As we have discussed already, people gain more sexual arousal from humans/characters to whom they feel an emotional connection—thus, when a TV show has a large fan base, a portion of that fan base is sure to sexualize them (the Omegaverse originally gained traction among the fans of TV shows, specifically starting among fans of the show Supernatural).

This alternate reality allowed for the creation of erotic art that more perfectly fit the proclivities of a previously underserved audience. By creating a society in which typical gender roles are recontextualized as an inevitability from birth and divorced from gender, authors dabbling in this genre allow those who are turned off by the physicality of either males or females—but turned on by that gender’s “traditional gender role”—to easily get aroused. It also allows for individuals who have complicated feelings about male-female sexual interaction due to past experiences—who nevertheless, at a biological level, are still aroused by gender roles and impregnation—to receive arousal without as much complication. The Omegaverse accomplishes all this while also providing an avenue for those who are turned on by traditional gender roles—but who nevertheless see them as antiquated and offensive—to extract arousal from these gendered scenarios with less guilt, making it a perfect example of how socialization can influence our choice in erotic material and partners even if it does not affect our underlying arousal patterns.

While arousal from non-consensual sex is shockingly common (see page 346) our society tells us in no uncertain terms that people should feel bad about themselves if they find it arousing. Genres of erotic material like A/B/O create alternate social structures so arousal can be harvested from scenarios in which a dominant individual forces themselves on a submissive individual with dubious consent. In the case of A/B/O, this kind of action is presented as an inevitability and a biological imperative that allows the reader to luxuriate in the fantasy with fewer niggling ethical concerns spoiling the fun. This can be seen in tropes like a scent “compelling” an individual to have sex or in the “f\*\*k or die” trope, in which an individual has to have sex with a particular person or they die (this scenario is often used in an attempt to lessen culpability associated with pressuring another person into sex). In this way, we see that genres of erotic material are often not only designed to fulfill arousal patterns, but also to circumvent socialized self-images that make fulfilling those arousal pathways difficult.

Elements of A/B/O draw in a colorful variety of readers—not just those aroused by “traditional” gender roles and instances of dubious consent in which a dominant partner pressures a submissive partner into sex. The Omegaverse tempts some readers in with its more animalistic flourishes (like the manner in which Alphas bite Omegas to mark them), others with Alphas’ bukkake-like sperm production, and others by Omegas’ inability to stop having sex once they start (implied by overpowering pheromonal rushes driving them into Alphas’ arms—and the knotting of Alpha penises). How cool it is to see this confluence of societal conditioning and arousal patterns coming together to create such a wild alternate universe—and better yet, one that has transcended its original purpose as erotic art in a manner that now helps people explore the various aspects of gender roles and their effects on society through speculative fiction.

The Omegaverse beautifully demonstrates that arousal can be thought of as existing on four levels:

* **The “sexual genotype:”** The specific things that generate arousal or aversion in a person, like the male form being aversive.
* **The “sexual phenotype:”** The manner in which the “sexual genome” gets exposed in arousing content or actions, like MPreg (there can be two people who both have green eyes—the phenotype—but who each have a different genetic code—the genotype—that leads to those green eyes). Phenotypes are not just a product of an underlying genotype; they can also be affected by “social scars.” Consider a person who is turned on by impregnation and exclusively consumes MPreg to exercise that arousal pathway because they have been socially conditioned—through traumatic events in their upbringing—to experience male-female sex as triggering (in the same way a person could also end up with green eyes because a particular fungus was growing in their cornea).
* **The “sexual ecotype:”** The way a sexual phenotype is expressed differently in different cultures (analogous to different environments in nature). Consider MPreg as it presents in Japanese mediums versus American mediums—or in fanfiction versus hentai.
* **The sexual genre:** This emerges when a collection of phenotypes coalesces into a community that features a somewhat-consistent set of social norms dictating how authors and audiences create and relate to arousing content. As they mature, these genres can transcend arousing content, using the frameworks created within the context of arousal phenotypes to explore deeper societal issues. Consider the Omegaverse’s use of MPreg tropes to explore gender roles—or furries using vore tropes to explore racism (as is done in the Beastars manga series).

# Sex, Masturbation, Orgasms, & the Brain

Let’s take a look at how arousal, sex, and masturbation affect the brain and mental health. We will also take this opportunity to explore related topics, such as how intelligence affects one’s experience with sex.

## The Effects of Sex on the Brain

There is a reason why characters are commonly depicted as becoming embarrassingly dumbstruck when they cross paths with someone they find to be sexually interesting. This maddening loss of mental faculties and grace really happens and is scientifically measurable.

Studies have found, again and again, that people undertake riskier behavior when sexually aroused. Worse, people are terrible at judging just how much they will concede when they are aroused and the extent to which arousal impairs their decision-making ability. A lapse in cognitive power when aroused can lead to more extreme types of BDSM, which are uniquely dangerous without upfront negotiations, limits, and continued check-ins. Safe words do not matter when your brain has turned into Jell-O.

Multiple experiments have shown that men experience cognitive impairment before and after interacting with women—even if said woman is a relative stranger, a woman who *allegedly* is looking at them through a two-way mirror, a woman with whom they interacted over a phone call, or even a woman who does not exist, but with whom men are told they will interact shortly.

This effect is *not* observed in women interacting with men. It is hypothesized that this may be a product of men being highly attuned to their behavior around potential mating opportunities. This may also be a product of men attempting to suppress themselves, as similar results are observed when a racist person speaks with someone of the race against which they are biased and when someone is afraid that a wealthier peer is watching them.

Sex also makes men very sleepy afterward, due to its effects on the prefrontal cortex combined with the release of oxytocin and serotonin. This effect, as well, is not seen in women.

Sometimes sex can just make one forget *everything* through an effect called “global transient amnesia,” which happens to seven out of every 100,000 people annually. Global transient amnesia only lasts for a short time (minutes or hours) and can be caused by vigorous sex (among a few other things). On the plus side, those suffering from transient amnesia after sex are genuinely able to say: “She/he f\*\*ked my brains out.”

Not all effects of sex on the brain are negative. Women who have sex without a condom show fewer depressive symptoms than those who are not having sex or are having sex with a condom. Scientists theorize that some of the compounds in semen have antidepressant properties.

In both men and women, sex has been shown to relieve pain, fixing 60% of migraines and 30% of cluster headaches. In women, g spot stimulation is shown to elevate one’s pain threshold. Studies have also shown sex to make both males and females happier and leave one feeling as though life is more meaningful the following day. (Note: the g spot is not a real anatomical feature, but rather the location where the internal part of the clitoris, urethra, and vagina all intersect.)

Sex may even improve intelligence and reduce stress according to some research. When contrasted with rats who are allowed to have a one-night stand, rats that engaged in chronic sex—sex for 14 consecutive days—grew more neurons in the hippocampus, which is associated with memory. We also see, among rats, a correlation between frequency of sex and decreased stress plus lowered blood pressure.

An increase in hippocampus neurons due to frequent sex has yet to be shown in humans; however, humans *do* show lower blood pressure and decreased stress with more frequent sex. For those wondering what counts as frequent sex: Sex every third day is generally what is recommended to maximize its positive effects.

### The Effects of Intelligence on Sex

We would be remiss to explore how sex affects the brain without investigating, briefly, how intelligence affects sex. As it happens, smarter people cheat more, and the correlation between intelligence and cheating is much stronger in women than men. Even after controlling for education, income, social class, race, age, current marital status, number of children, religion, and religiosity, intelligent people cheat more. This finding becomes more interesting the deeper one digs. While intelligence is *positively* correlated with infidelity, educational achievement is *negatively* correlated with infidelity.

Perhaps intelligent women with lower formal educational attainment are more likely to cheat because their natural abilities warrant better partners than society would otherwise facilitate. A high-value man may enjoy an intelligent woman’s company long enough for sex but may be too embarrassed to be in a long-term relationship with someone lacking a fancy education.

One can safely drop the assumption that smart people are disinterested in sex and that sexual desire is reserved for the knuckle draggers. Intelligence is, perhaps surprisingly, correlated with a higher libido. Counterintuitively, however, intelligence is also associated with less *actual sex* (even if more of that sex comes from cheating). It seems, then, that intelligent people *want* sex, but have the good sense and self-discipline to invest their time in other pursuits.

Finally, research in this area suggests that there is a point at which being smarter begins to hurt one’s sexual prospects. Specifically, the attractiveness-intelligence correlation peaks at around the 90th percentile, with the most desirable IQ to have being around 120.

## Masturbation

Being familiar with communities like NoFap (a large online community that champions abstinence from masturbating) and popular books claiming to make unbiased, evidence-based approaches to the subject, we assumed there must be surprising evidence touting the harmful effects of masturbation—not that it will make one go blind or anything, but that it generally contributes to lower motivation, correlates with more problems in relationships, is highly associated with lower happiness, impairs cognitive function, or at least that it causes people to seek out crazier types of porn that desensitize them to “normal” sex. In reviewing the scientific literature on masturbation to find research supporting what we had been led to believe was true—that there is voluminous, peer-reviewed evidence demonstrating that masturbation has negative effects that can be mollified through abstinence from masturbation—we found that almost *all* of the scientific literature strongly disagreed with our assumption.

The Pragmatist Foundation’s highest goal is to help people become more comfortable changing their minds when the evidence does not align with their current beliefs about the world. We would be filthy hypocrites were we to dig around for the studies that reinforce our pre-existing beliefs, which we could *totally* do. We could easily cherry pick studies that support the argument that masturbation hurts relationships, especially if we cherry pick studies that do not account for the chicken and egg problem (that an already bad relationship will feature more masturbation on average). All that said, the weight of the evidence is clearly *against* masturbation being harmful to relationships, so we will not argue weak points. It is a good day when we will fall asleep being less wrong about the world than we were when we first got out of bed that morning.

It terms of health benefits, masturbation has been shown to improve sleep quality, lower the probability of prostate cancer, relieve menstrual cramps, reduce the risk of urinary tract infections, relieve muscle tension, improve the immune system through boosted leukocyte production, strengthen muscle tone in pelvic/anal areas, and increase sperm count.

With regard to benefits to one’s mental state, masturbation has been shown to release sexual tension, reduce stress, improve self-esteem, improve body image, and lead to higher self-reported rates of happiness. (Some studies suggested this was not the case in adolescent women, but later longitudinal studies suggested this finding was due to confounding factors.)

Masturbation may contribute to a decline in many social ills. UCLA researchers found that sex criminals, on average, consume less porn than the average person, and started consuming it at a later age than the average non-sex-criminal. Had today’s sex criminals been able to explore their sexuality through their imagination earlier, perhaps they would not have felt compelled to commit sex crimes later.

For every 10% increase in internet access in the US, there is a corresponding regional decrease of 7.3% in rapes, suggesting that the internet and its facilitation of masturbation may provide an outlet for sexual energy that might otherwise cause serious damage.

Across nations, more permissive attitudes toward pornography are correlated with lower rates of rape and less violence against women. A great case study of this can be seen with the Czech Republic, where porn was illegal under communism, then legalized when the party fell. This decriminalization of pornography caused, in one year, rapes to decline over 37% and child sexual abuse by about 50%. Similar results were seen when porn laws were loosened in Denmark, Japan, China, and Hong Kong.

Other studies reinforce these results, such as one in *Aggression and Violent Behavior[[46]](#footnote-46)* that found a (weak) inverse correlation between porn consumption and violent behavior toward women (specifically rape and sexual assault). The study’s findings suggest that the more porn a man consumes, the less likely he is to commit these violent acts against women.

Despite what we had assumed, masturbation and porn consumption do *not* lead people to think less of women. People who watch pornography hold views of women as more equal to men than those who do not watch pornography. Consumers of porn are no less likely to describe themselves as feminists and actually express more egalitarian ideas about both women in positions of power and working outside the home, according to the results of a study published in the *Journal of Sex Research*.[[47]](#footnote-47) (We did, however, find a study showing that men who were low on the trait of agreeableness did increase already sexist attitudes when exposed to pornography.[[48]](#footnote-48))

We did recall reading about a study conducted by the Max Planck Institute showing that intense porn consumption in men was associated with lower grey matter volume in the brain, so we went back to the study only to realize what it *actually* found was that men who consumed lots of porn had lower amounts of grey matter in a specific part of the brain: The right striatum. This is a part of the brain involved in reward processing. All the study says is that men who have deficient reward processing pathways consume more porn. The finding is not at all surprising and sounds more like correlation than causation. And wouldn’t you know it, that is what the authors of the study have also said in interviews.

At least masturbation itself must negatively affect one’s virility, ability to get laid, or relationships . . . Right?

Wrong.

A study conducted on college students found that those who masturbate more actually have *more sex* than those who masturbate less. Another study found that people who masturbate more often have happier marriages and more satisfying sex within those marriages. Masturbating while fantasizing about one’s partner has also been shown to improve the quality of relationships and reduce relationship-damaging behavior patterns.

Studies even show that the concept of building up a tolerance to vanilla porn (suggesting that that is why some people go to increasingly weird porn) is false—and this is something we were formerly *certain* was true, so we are quite excited to learn that we were wrong. Specifically, people who like weird porn still get turned on by vanilla porn and at *even higher levels* than people who prefer vanilla porn (statistically speaking, of course; this isn’t true for every single individual). Essentially, escalating weirdness in porn tastes may be the product of a higher affinity for porn in general. The underlying arousal patterns experienced by weird porn aficionados don’t shift in response to exposure to weird porn; they are merely able to tolerate more obscure content.

We do not start to see any consistent negative effects of masturbation and porn consumption until we get to studies looking at masturbation three or more times a day, and even those seem a little cherry picked. One study found that pornography negatively affects working memory, though the effect only holds while one is watching it (*Thanks*, Captain Obvious—we will be sure to remember that the next time we decide to take a test while masturbating). We also found some studies showing that when a woman knows her boyfriend is masturbating, it can hurt her body image, and some studies indicate that poor masturbation technique in men (gripping too hard) can lower a man's sensitivity. Still, none of this really seems to paint even fairly frequent masturbation as being bad on the whole.

OK, OK, OK . . . But what about addiction? Masturbation addiction is destroying the lives of millions of young Americans, right? The answer here is a resounding: “Ehhh . . . anecdotally?” Masturbation is not recognized as addictive by the American Psychological Association (APA) and is not categorized as a mental health condition in the latest Standard Diagnostic Manual (DSM-5). We readily admit it seems a little weird that there isn’t much research showing masturbation can be addictive, as it seems to affect opioid pathways—and most things that affect opioid pathways enhance one's ability to learn a behavior and thus cause addiction in a subset of the population. Think: Gambling, alcohol, morphine, etc.[[49]](#footnote-49)

Instead of being thought of as an addiction, the current consensus seems to be that frequent masturbation should be categorized as a compulsion—this is the same categorization given to what is colloquially called a “sex addiction.” In this case, there doesn’t seem to be anything (neurologically speaking at least) that differentiates someone who has an “addiction” to masturbation versus sex (meaning negative effects resulting from masturbating too much would also arise after too much sex). Even then, calling masturbation an addiction seems tenuous. For more on this, read *The Myth of Sex Addiction* by David Ley, Ph.D.

One study suggests that abstaining from masturbation for seven days may increase testosterone levels, which could be useful if a person is trying to build muscle. The problem here is that another, older study suggested that abstaining from masturbation *reduces* testosterone levels, and yet another study’s findings imply that while abstinence from masturbation appears to raise testosterone levels, the effects are trivially small. There is also some evidence supporting claims that frequent masturbation may cause a person’s number of androgen receptors to decrease and estrogen receptors to increase, but the evidence is tenuous.

For the belief that masturbation is negative in some way, there is a shining ray of hope: In males, and only in males, the use of pornography as a masturbation tool has been shown to have slight negative effects on relationships. Some neuroimaging studies show it may affect the male brain in negative ways as well (though both of these studies present fairly unique findings that are not, to our knowledge, broadly replicated).

We could find no studies showing additional positive effects (in men) from masturbating while looking at porn. To put it in other words, all of the even remotely negative side effects from masturbation are tied to pornography (aside from penile death grips). Thus, if you believe that masturbation is negatively affecting you, consider abstaining from porn as a masturbatory tool before you put in the effort to abstain from masturbating entirely.

This is a stretch, but masturbation among at least some monkeys is associated with a lack of dominance. Could frequent masturbation increase submissive arousal pathways? Perhaps, but . . . again, this is a stretch. It could just as easily be that already submissive monkeys turn to masturbation because other, more dominant males are getting all the actual sex, leaving these submissive apes fewer outlets for their sexual needs.[[50]](#footnote-50)

We bring up these points only if you absolutely *must* find something negative about masturbation. The reality is, even in the case of porn usage for masturbation, the majority of the available evidence suggests it is no big deal, and any negative effects emanate from something else. When a meta-study was done on the topic, it found no correlation between masturbation with porn and negative effects in most people, though it did find a very large effect tied to a masturbating individual’s moral opinion of porn. Specifically, if someone has a moral conflict with the idea of pornography yet uses pornography anyway, they will experience stress, anxiety, depression, diminished sexual well-being, and an increased risk of suicide, as well as religious and spiritual struggles.

Those who consume porn despite moral objections to it will also complain of more anguish in their attempts to control their porn use and believe that they are consuming more porn than their peers, regardless of how often they actually masturbate to porn. It appears to be that the negative psychological effects that other studies are finding are actually tied to a small subset of the population that views porn as morally corrupting and has tainted larger data pools.

Studies have shown people who experienced early life stressors and high religiosity may be more likely to exhibit sexually compulsive behaviors. One study found that:

“States with more Evangelical Protestants, theists (people who profess belief in a God or higher power), and biblical literalists (those who report they interpret the Bible as the literal word of God) are significantly more likely to have higher aggregate rates of online searches for pornography. States where people attend religious services more frequently are also significantly more likely to have higher rates of searches for online porn. Finally, we find that states with higher percentages of residents unaffiliated with any religious group have significantly lower levels of searching for online porn. These findings are interesting because at the individual-level, people who affiliate with Evangelical Protestant groups, attend church, read the Bible literally, or believe in God generally report much lower levels of pornography consumption.”[[51]](#footnote-51)

Ultimately, while it feels like masturbation and porn consumption should have various negative effects and we have very convincing anecdotes from individuals who claim that abstinence from these things has improved their lives, the current evidence doesn’t seem to support our intuition.

Where do we, Simone and Malcolm, stand at the end of all this?

**We now lean toward believing that porn consumption and masturbation themselves likely cause no real negative effects, but that porn and masturbation abstinence strengthens the inhibitory pathways in the brain—as does *any* form of abstinence that entails shutting down a reward pathway.** Strengthening inhibitory pathways in the brain makes it easier to deal with issues like procrastination, focus, and anxiety, but such strengthening could be executed just as easily by abstaining from sugar, regularly fasting, or not using Facebook.

What we suspect is that no fappers aren’t seeing benefits from removing porn specifically, but rather the benefits associated with repeatedly shutting down a reward pathway. It's a bit like someone arguing that lying on couches for four hours of the day is unhealthy after beginning to spend two hours a day at the gym and subsequently feeling better in all sorts of ways. Someone in such a scenario is absolutely experiencing a quality-of-life improvement, but that improvement is coming more from the exercise than a sudden reduction in couch time in their lives.

**Notes from the Research:**

* 48% of men under 40 report having watched pornography within the last week (27% in the last day).
* 16% of women under 40 report having watched pornography within the last week.
* Male monkeys will trade juice to look at pictures of female monkeys’ butts. They will trade more juice to look at these pictures than any other type of picture.
* Only 2% of porn subscriptions are billed to credit cards with female names. The processors used by many porn companies flag any female names as potential fraud because they are so rare. (Though as mentioned before, women likely spend more money on erotic products than men, with a focus on the narrative format often not offered by pornographic websites.)
* While watching porn, the amygdala and hypothalamus are much more highly activated in men than in women.

**Notes from Our Research:**

While the survey we personally conducted doesn’t paint a clear narrative about masturbation, we still find some of its results worth sharing:

**In women:**

* Our female survey respondents’ frequency of masturbation had no correlation to their wealth and only a slight correlation with happiness (showing markedly less happiness in women who masturbated once a day or more, but otherwise showing little correlation between masturbation and happiness above that level).
* We found a strong correlation between female survey participants’ reported frequency of masturbation and friend group size with females who masturbated more frequently having smaller friend groups, as well as lower self-reported popularity within those friend groups. It strikes us as more likely that women with fewer friends masturbate more because they have more free time than there being some popularity/friend shift that takes place after women start masturbating more.

**In men, things are a bit more interesting:**

* On average, the happiest men taking our survey reported masturbating multiple times a day, followed by men who reported to completely abstain from masturbating (both groups reported themselves to be dramatically happier than average male survey participants). The least happy men appear to be those who masturbate only a few times a year. Other than that, we found little correlation between self-reported frequency of masturbation and levels of happiness.
* Surprisingly (to us at least) in men, masturbation frequency correlates strongly with wealth. Essentially, the wealthier a survey participant reported to be, the more he reported masturbating . . . or the more he reported masturbating, the wealthier he reported to be. Men who reported masturbating more than once a day also reported being dramatically wealthier than other men. Male survey respondents who reported masturbating less than once a year also reported themselves to be dramatically less wealthy. (Here we would point out that the aforementioned categories of men had small sample sizes.)
* Men who responded to our survey reporting larger friend groups also reported masturbating more frequently, but self-reported frequency of masturbation had little correlation to self-reported popularity within participants’ friend groups.

## Female Orgasms

Most books on sexuality feature, out of either tradition or a sense of obligation, a token section in which they explain that a quarter of women almost never orgasm during penetrative sex and that 3% of men almost never orgasm during sex. We do not find this to be a very interesting point. If you are not having sex to get pregnant, you are either doing it to harvest a certain subset of emotions (or utilize those emotions to exercise some control over another person) and orgasms make up just one small subset of those emotions (not to mention the one that is easiest to achieve without involving another person).

Sex can be great without an orgasm and sex can be terrible with an orgasm. Those bragging about the number times they made a partner climax during sex are *really* only communicating that (1) they know next to nothing about sex, and (2) that sex with this person is likely a chore. Someone who thinks sex is all about an orgasm is akin to a self-proclaimed foodie who only thinks something tastes good if there is loads of sugar in it.

**Notes from the Research:**

* Two out of five straight men do not know how often their partners orgasm.
* Postcoital dysphoria causes some people (approximately 5%) to experience inexplicable tearfulness, sadness, or irritability following an orgasm.
* Cross-culturally, people make different faces in response to orgasms—well, at least in China vs. the US. The Chinese orgasming face looking more like a smile, while the western orgasming face takes more of an O shape with the mouth. That said, this might just be a cultural stereotype, as this study sadly neglected to bring participants to orgasm and take pictures of their faces—rather, it asked participants what face in a series of faces looked the most like an orgasm face.

# The Mechanics of Love

We would feel incomplete discussing arousal and sexuality in the absence of love. After all, many people insist, causing us to cringe instinctually, that they do not have sex with others but rather “make love.” What is this . . . Love? How does it work, and what is its place within the larger landscape of sexuality?

Arousal is a reward our brain serves when it detects certain sets of environmental stimuli. Generally speaking, we find things arousing because historically, the humans who experienced arousal upon detecting certain things in their environment—be they boobs or a submission ritual—had more surviving children. The human arousal system sometimes does not function as intended; some are aroused when exposed to breasts so comically large, they would kill a woman; others are aroused when looking at half-humans, half-animals with whom they could not possibly breed.

Generally speaking, love exists for the same reason (because those who felt it had more surviving offspring) and suffers from similar problems. Love is a neurological system that scans the environment for certain stimuli and, when it senses specific sets of stimuli, creates a feeling/impulse. The impulses associated with love feel different from those associated with arousal, are triggered by different environmental cues, trigger different sets of reactions, and linger much longer. Just as each individual has their own unique pattern of arousal reactions that culminate in their “sexuality,” each person also features a unique pattern of love reactions, which can be thought of as their “amourality.” We use the term amourality instead of romantic orientation, as romantic orientation is a combination of amourality, societal concepts of romance, and NRE[[52]](#footnote-52) orientation (how you crush)—but more on all that shortly.

The arousal impulse appears to have blossomed from reward mechanisms originally only meant to encourage our ancestors to have sex with things. Sexual arousal later became hijacked by other pathways, such as dominance-submission pathways, as humans developed into a more complicated social species.

In a similar vein, **our pre-social distant ancestors likely first evolved the emotion of love because it encouraged them to differentially protect their offspring over other members of the species**. Only later did early humans begin applying this emotion to adult, pair-bonded partners and later still apply it to non-romantic partners as a method of promoting social cohesion.

Why was love, this child protection system, favored by evolution over other emotional pathways to promote long-term pair bonding and tribal social cohesion? Why do we feel the emotional bundle we associate with love instead of generic joy, contentment, or satisfaction? Why did humans not develop a new, unique emotion for pair-bonded partners instead of using the same pathway we use to bond to our children? Simply put, this emotional set already existed, and it’s evolutionarily cheaper to hijack an existing emotional set than it is to build a new system. Additionally, love is nearly perfect in its functionality and features as a tool for motivating behaviors that would facilitate productive and collaborative behavior among groups of humans.

What are the functions and features that make love so perfect as a tool to motivate pair-bonded relationships and social cohesion? Not only does love last much longer than other positive emotions, but it also has the ability to identify and apply unique emotional reactions to specific individuals—something obviously important for identifying and reacting differentially to one’s own children, but also very useful in a pair-bonded partnership or among a group of close friends.

Love generates a higher level of empathy with its targets, causing humans to experience more happiness when the subjects of their love thrive—and generating more sadness when loved ones suffer. Love seems inextricably paired with a desire to protect that which is loved from harm. Love doesn’t latch onto *people* per se, but rather our internal concepts of those we love, enabling the formation of love for anthropomorphized concepts that are not “people” (such as “my tribe,” “my team,” or “the human race”).

Before we move forward we must differentiate the “love” emotional set and “romance” emotional set. Romance is a confluence of two additional impulses to love that can be conflated into a single “romantic identity:”

1. The desire to fulfill society’s expectation of romantic actions (candle-lit dinners, flowers, and the like)
2. NRE (new relationship energy)

NRE creates a much stronger and more acute emotional state than love (at average levels, in their most extreme states love is a more intense emotion). NRE is often perceived as a “crush” or “squish.”[[53]](#footnote-53) Unlike love alone, this emotional state causes an intense fixation on the target, a desire to spend time around them, have a closer relationship (whether that be platonic or romantic), and sometimes to be more like them.

NRE typically *decreases* as you get to know an individual better (which is why it lasts longer in long-distance relationships), while love typically *increases* as you get to know an individual better (in *The Pragmatist’s Guide to Relationships*, we explore NRE in intense detail, as NRE addiction has the same neurological effects as addiction to codeine, can cause catastrophic consequences, and is an ever-present threat when first entering the poly community). If you are having trouble imagining the difference in these two emotional sets: Love in absence of NRE is what you feel for your dog or country, while NRE in absence of love is what you feel for your middle school crush.

Perhaps love and NRE are so difficult to parse out because first-time romances tend to be glorified. People first feel NRE around middle school and, due to its novelty and intensity, they may mistake it for the emotion of love all the adults are talking about—rather than realizing love was that boring emotion they had always felt for their siblings, parent, or pet.

While society talks about “flavors” of love, it really seems as though the different types of love are determined by output levels and the social acceptability of different beloved subjects. While it is seen as socially positive if a mother exhibits behaviors associated with extreme love for her kids, it would be seen as creepy if someone were to exhibit the same behavioral sets for a boyfriend of two weeks or a sports team. People would be hesitant to identify the impulses driving the latter actions as “love” and instead use the word “obsession”—even if the impulses could be shown to be functionally identical at a neurological level—because society seems to have a fundamental discomfort with the idea that love can drive gauche actions.

Our brains are great at convincing us the same “flavor” of emotion is a few different things as long as we have a social scheme that supports the differentiation. For example, Skittles (the candies) are actually all the same flavor, but many people believe they are tasting unique flavors because we have been socially conditioned to associate certain colors with certain flavors.

Think of “love output” as being like a faucet. Different things will turn the knob on the top of that faucet. The level of love output that society condones varies depending on the factors turning the knob. Society supports a medium-high level of love if it is triggered by one’s children or spouse, a medium level for friends and family, and a light level for one’s country, humanity in general, etc.

The mere presence of societal ideals for the level of love one should feel toward various things does not ensure everyone’s brains generate love outputs following those guidelines. There is a huge diversity in the amourality of individuals. Some experience greater love for things like friends or abstract concepts like sports teams than they do for romantic partners.

At higher levels of output, love is not always a pleasant emotion to experience. Historically speaking, love—especially romantic love—was seen with the same negative prudishness as sexual arousal. In the majority of historic cultures, forming a love pair bond with an adult of another gender to whom one was not married (and even in some cases showing love for a spouse) was seen as a moral failing.

Love among romantic partners was not really put on a pedestal until the 13th-century arrival of the chivalric literature movement, exemplified by cringy erotic romance novels that feature comic book-like adventures. Celebration of love among romantic partners did not really affect society as a whole until the descendants of the chivalric movement began to influence other forms of media. The idea that love is an indication of who you should want to marry did not even really begin to capture the general public's imagination until the time of Disney. People’s belief that love is the key to a stable, long-term romantic relationship, rather than just an emergent property of many long-term relationships, is a very recent invention and cultural export of industrialized Western civilization (we discuss how this concept emerged from chivalric literature and the courtly love movement in greater detail in the chapter: “Conclusion: Relationships, Sex, & Society” on page ).

Even more recent is the moral elevation of love for concepts like “humanity” and “one’s fellow man.” This cultural shift metastasized during the sexual revolution of the ’60s and ’70s, perhaps in part due to a higher output from “love systems” in the brain induced by certain drugs that were popular at the time.[[54]](#footnote-54) Many today bizarrely associate the concept of “free love” with the idea that one should have sex without inhibition instead of the ideas that one should learn to experience love for everything, that love is always good, and that love should be given away for “free”—which are ultimately closer to the actual message of the free love movement. We view the concept that love is never bad as more radical and socially corrosive than the idea that one should have sex without inhibition, so perhaps it is best that people inaccurately remember what the term meant.

Anyone who has experienced a full torrent of the “love output” would be loath to idealize the emotion and understand it for the danger it poses. They would understand the way it eats at the edges of one’s consciousness with a yandere haze, constricting one’s perspective of reality through a single point that blazes like magnesium.

Studies show love’s effect on the brain to be similar to that of heroin. How is that a good thing? When our brains are unafflicted, they generally gain happiness from being nice to people and making the world a better place. In contrast, a torrent of love can allow us to gain satisfaction from burning a civilization to the ground were we to believe that doing so would please or protect the objects of our affection. We are fairly sure we are not the only ones who have experienced love in this way—we see people talk this way about their kids, their pets, and even their home countries with similar awe and horror. An interviewer once insisted to us that love would never lead to an “evil” impulse. We asked her if she would kill an innocent person to protect her children, and if so, what emotional state would motivate that impulse. She changed the subject.

Seeing as love is not necessarily an emotion above moral reproach, but rather just an occasionally misfiring impulse we evolved, let’s explore the triggers for love and how they break.

**Note from our Survey:**

* Our survey responses imply that at any given point, around 61% of women and 49% of men are in love. This suggests that love, far from being some unicorn of an emotional state, is the default human state, with the average adult being in love at any point in time.

## Love for Our Children

Love originally evolved to help proto-humans identify their offspring and treat them differentially when contrasted with other young members of their species (this would boost the odds that one’s genes proliferate). Most mammals likely feel something similar to what we experience as “love” toward their offspring. Some young mammals also feel a sort of love for their parents; this love is triggered by different factors than those which make parents love their children. Here we will explore the systems that inspire adults to love individuals they believe to be their children as well as the systems that compel children to love individuals they believe to be their parents.

**In Adults**

Adults form a love attraction to a child when they encounter the following stimuli:

* **Baby schema characteristics:** Features unique to babies, like disproportionately large eyes, which studies show cause “endearment” (a socially acceptable word for low level love output).
* **Oxytocin:** Women experience a change in the way the oxytocin systems in their brains work (the ones associated with love) before giving birth, causing them to fall more deeply in love with infants who pop into their lives.
* **Touch and smell:** Due to the evolutionary age of this particular relationship, we are quite certain there are a number of subtle systems in action, such as pheromonal interplay between parents and children (think of the unique smell of a baby’s head or breath) and likely some systems specifically tied to breastfeeding.

These systems are the least interesting of the love systems in that they “break” the least, which makes sense due to their evolutionary importance. The only two interesting takeaways here are that:

1. Men feature fewer triggers for loving children than women do, meaning they likely experience less love for their children on average. Even we find this a bit offensive, as it sucks to say that fathers will not love their children as much as mothers will (on average), but the studies back it up. Men simply love their children less than women do*—again, on average*. In a Pew Survey, 98% of women saw their children as their primary source of happiness, whereas male respondents often ranked children below other things, such as their careers.
2. Our pets have hijacked aspects of this system by evolving to maintain childlike characteristics longer in life and emphasizing these child-like features more, eliciting a “cute endearment” reaction. Species that have co-evolved longest with humans, such as cats, even meow at a frequency similar to that reached by a child. Some animals coincidently activate these systems. Killer whales have large black spots that our brains interpret as oversized eyes and lead us to see them as endearing instead of bloodthirsty murder junkies and psycho rapists (honestly, nothing under the water is more representative of the horror of the natural world more than Orcas, but they have big eye spots and sharks have “lifeless beady eyes,” so we see one as cute and the other evil).

We would also argue that the elements of love that cause attachment to pets may actually be evolving into their own unique set of triggers and reactions within human brains. Consider how long we have lived alongside our closest companions—dogs and cats—and how much we have likely manipulated their love systems to pair bond to us. Humans have selectively bred dogs to pair bond to their masters for generations to the extent that the torrent of “love” output a dog feels when it interacts with his human is likely a thousand times stronger than any output of love a human is capable of experiencing due to the strong selective pressures placed on domesticated dogs, which exaggerates that emotional output. A dog’s love system related to humans is arguably more important to the survival of its offspring than the dog’s own attraction systems to fellow dogs. To put it another way, no one—be they a parent, boyfriend, or wife—will ever love a human as much as that human’s dog does, as our ancestors genetically manipulated that dog to force it to love you.

**Babies & Love**

What causes babies to experience love?

The system causing babies to experience love is fascinating because it breaks in a cool way, a lot of research has been done on it, and it is fairly straightforward.

A baby will feel love toward a thing if:

1. It is soft
2. It is warm
3. It is familiar / often present
4. Certain pheromone-based systems are triggered

Ape babies given a choice between a soft warm cloth mother that did not produce milk and a wireframe mother that *did* produce milk vastly preferred the cloth mother over her cold-but-nourishing rival. Surely the human system is more complicated, right? We don’t think so.

Consider teddy bears and “blankies” (small blankets to which children form a strong emotional attachment). Researchers call these things “comfort items.” These comfort items are not terribly different from the cloth mother presented by researchers to ape infants—they are warm, soft, and familiar—and seeing as they provide no benefit to a child’s survival, they can be seen somewhat as the porn equivalent for infants.

Comfort items hint at the age at which this particular love system “shuts off” in humans—around the age of four. This is the last age during which a developmentally normal child can form an attachment to a new comfort item.

Comfort items exemplify how subjects to which humans form attachments through a love system that subsequently subsides can persist as significant objects of affection well into adulthood. One in three adults report being unable to throw away a childhood comfort item. While this love system, when functioning normally, will not lead us to fall in love with something after the age of four, the subjects to which babies and toddlers bond through this love system can remain subjects of our affection well into adulthood.

Takeaways:

1. If you want to afflict your child with love for you, hold them a lot before they are four years old and let them see you as a soft source of warmth.
2. A child is very likely to form a similar “love” attraction to pets, siblings, and caregivers.
3. We imagine this system breaks sometimes and stays active in adults; however, we have yet to hear or read of this phenomenon arising. We would assume when it does happen, it gets mistaken as a kink or a weird obsession with stuffed animals or body pillows.
4. Because these systems are most active in youth, we associate common comfort items (such as blankets and stuffed animals) with youth. Some women subconsciously attempt to use this association to appear younger and thus more fertile by associating themselves with lots of teddy bears and stuffed animals (if you haven't run into one of these women yet, trust us; they exist). When you consider that these systems are supposed to turn off at age four, this is a somewhat disturbing strategy.

## Love for Our Social Groups

Love for one’s tribe likely piggybacks on the love-related systems we evolved to identify and care for our offspring. Human ancestors born with mutations that enabled them to form love for their tribes (albeit weaker love than that felt for offspring) likely survived at higher rates.

This phenomenon of love for one’s tribe or pack is not exclusive to humans. The system that causes a chubby 40-year-old man to miss work to catch his team's game is the same system that causes wild dogs to risk their lives to protect the pack.

The tribal love system seems to work along the following pathway:

1. Determine a group of individuals with a unique identity (even better if said group is in competition with other groups)
2. Gauge membership in this group
3. If deemed to be a member, come to personally, deeply identify with this group
4. Experience satisfaction when this group wins and anguish when the group loses, thereby strengthening the bond—especially if these empathetic feelings are experienced with other group members in a communal setting (more specifically, we think that skinner box conditioning associated with wins and losses is needed for this step)

This system does not appear to require in-person interaction with a group in order to activate and begin generating strong feelings of love and attachment. These emotional responses include a desire to protect the group, make it happy, and see it “win,” albeit at much lower levels than similar desires elicited by love for children or a pair-bonded partner.

This system’s lower volume settings may make it seem deceptively safer as a love system than the others. In actuality, social group love is the most dangerous love system of all. Media—social and otherwise—has found a way to hijack this pathway, leveraging it to create an attachment to a political ideology and use this attachment to force audience engagement.

This low level of the “love” output experienced by a large portion of the population toward one political party or another makes it very difficult for that group to critically evaluate their party’s beliefs as they change over time. Our social love systems have many people clinging to certain groups even after they cease to exemplify their values. The same systems that lead us to form strong personal attachments to sports teams and illogically hate people who see themselves as supporting the other team generate a similar but far more harmful air of animosity on the political landscape. Worse still, this attachment is profitable to media companies and useful within the political system for getting votes, so there is no motivation for an outside pressure to reverse this escalation.

If you’re thinking this “love system” couldn’t get worse, consider how tribal love engenders hatred toward those deemed traitorous. All love systems seem to do this to some extent—consider how mad people get at partners they love(d) who they feel betrayed them through cheating on them or leaving. Hatred toward perceived traitors makes extra sense within tribal-based love systems, seeing as traitorous behavior has the potential to deal a fatal blow to tribal integrity.

This reaction hampers societal and political progress when “tribe members” come to hate fellow group members who allow their beliefs to evolve when presented with new information (seeing as they may now refuse to tow the party line). If a member of a political group updates their perspective on an issue when confronted with evidence, but the rest of the group does not, then they will often be more hated by the group than a member of another political faction. For obvious reasons, this does not serve society well.

## Love for Romantic Partners and Concepts

Love systems tied to romance clearly have the most relevance in an exploration of sexuality, as sexual attachment and romantic attachment are often conflated. Our romantic love systems are fascinating because they are worse than even some other love systems at targeting humans rather than concepts.

The romantic love system is not magical and can be “tricked.” More than twenty years ago, psychologist Arthur Aron famously tried to manufacture love in a laboratory setting. Participants from the experiment not only fell in love, but they ended up getting married. Aron demonstrated both that love can be created just by exposing people to a specific set of stimuli *and* that social pressures to marry who you love are so strong, people will end up marrying someone just because they love them—*even when* they consciously know the love they experience was created under laboratory conditions.

Romantic love appears to be triggered by:

* **Complexity:** The complexity of an idea or person appears to correlate with feelings of romantic love
* **Time:** The amount of time we spend thinking about something may trigger feelings of romantic love
* **The belief that that thing can protect and comfort us:** Feeling supported by something in a moment of personal vulnerability may trigger feelings of romantic love
* **Prolonged eye contact:** In addition to triggering feelings of romantic love, looking at eyes elicits all sorts of weird, unique psychological effects—for example, if you paint eyes on a collection box, people will donate more money, and if people see fake eyes painted on something, they act more morally in general; there is clearly a unique neurological pathway associated with processing the concept of eyes, so it would make sense that it could be involved with love
* **Physical intimacy:** Interaction while violating personal space, assuming the violation of personal space doesn’t put a person on guard, may trigger feelings of romantic love (this might be tied to the vulnerability trigger)
* **Sex:** Maybe orgasms matter here, maybe they don’t, but sex and arousal seem to make other love systems form bonds faster—this trigger seems to affect women more than men and weaken with subsequent sex partners

Through understanding the above points, one can incite love in a target individual with an even higher fidelity than the method used by Arthur Aron. Specifically, the feeling of love can be reliably instigated in a subject by combining regular sex with a few sessions in which you:

* Sit closely with the subject somewhere isolated with a view (even better if there is some taboo associated with the location which increases a feeling of vulnerability and protection)
* Hold hands
* Make prolonged, direct eye contact
* Discuss life philosophy

This technique takes about a week and a half to strongly set in and is generally effective as long as the target feels comfortable enough to be vulnerable and talk about things they otherwise wouldn’t feel safe discussing. An adequate level of comfort, aesthetic appeal, and hygiene is also necessary—a target is not going to tolerate prolonged close proximity and eye contact with someone who has horrid breath and stinking hair, and a target will not be able to engage in deep philosophical conversation if they are tired, hungry, cold, and feeling threatened or trapped.

The above technique boasts an admirable success rate on people with little sexual experience. Explaining the steps and the purpose of the “experiment” to a target (which we would recommend, in the name of good form) does not appear to lower the probability of this method working. This method is not from any specific set of research findings, but rather a conglomeration of a few studies combined with personal experimentation. It works reliably enough that we assume there must be something behind it.

This technique revolves around three core elements:

1. Maximizing feelings of vulnerability, backed up by feelings of safety
2. Physiological modifiers like eye contact and sex
3. Complex, cognitively engaging discussions that inspire self-reflection (read *The Pragmatist’s Guide to Life* if you don’t know how to have these)

Statistics on romantic love in arranged marriages strongly indicate that romantic love between people generally forms when they spend a lot of time around and rely on each other. We developed the process outlined above merely to see if romantic love could be developed more rapidly.

Our brains appear to use complexity—rather than actual closeness—as a proxy for the closeness of a relationship. Just as one might use weight as a proxy for volume to determine how much water is in a particular container (despite there being many other things could increase the weight of a container, such as rocks), our minds appear to use the apparent complexity of a person and the frequency with which we think about them as a proxy for our intimacy with that person.

It is an elegant system. Humans spend very little time thinking about or building models of people who are not romantic targets. We just don’t think about other people that much unless we are trying to get said people to mate with us. If someone is successful in their romantic conquest, they will spend more and more time around their romantic target, further increasing the complexity of their mental image of the person, so the complexity of our image of a person could prove as a valid proxy for success in a romantic conquest. This would in turn increase the evolutionary advantage of falling in love with such a person.

In short: Since those about whom we think the most are commonly those we romantically pursue, the complexity of our mental models of others serves as a great proxy for our subconscious to measure when determining who/what to love.

We have yet to find evidence that love has a gender detection system associated with it.[[55]](#footnote-55) Love appears to be completely focused on our concept of who a person is rather than any particular person as a physical entity.[[56]](#footnote-56) Despite anecdotal claims to the contrary, there is no statistical evidence for a “gay” or “straight” version of the amourality system.[[57]](#footnote-57) Outside of social pressures and a few extremely rare cases, most people appear to be panromantic and capable of forming love bonds with men, women, and even animals.[[58]](#footnote-58)

This makes intuitive sense when you think about it: How many people love their pets just as strongly as they love their spouses? We know plenty of people who would openly boast of feeling such love, and yet we would hardly think of them as practicing bestiality because intuitively most people have experience loving a vast array of things (from babies to cats). All that said, both having sex with someone or being sexually attracted to them seems to expedite the formation of pair bonds, so love will form more quickly with the genders one sexually prefers.

Our model would therefore hypothesize that “bromance” is the exact same emotion as romantic love—it is merely contextualized differently. Because romantic love bonds with those to whom one is not sexually attracted are not categorized as love bonds in Western culture, such relationships get mockingly categorized as “bromances.”

Here's the real kicker: Because love targets our *concepts* of a person rather than the person themselves, it is possible to fall in love with a completely abstract concept. What, specifically, causes this phenomenon?[[59]](#footnote-59)

We systematically recalled moments in our lives during which we felt love toward non-human concepts and searched for similarities between those moments. Complexity or a conceptual vastness seeming just out of reach shone through in all such moments, which included:

* A feeling of love for humanity when thinking about how all humans have their own similar-but-unique mental identities and can be thought of as one unified, massive consciousness
* A feeling of love for the galaxy when meditating on its vastness and intricacy
* A feeling of love for neuroscience when thinking about the complex interconnectivity of it
* A feeling of love for the concept of God when thinking about the complexity of the Trinity (that God is simultaneously wholly one entity and three separate entities)
* A feeling of love for the concept of love itself, as the concept of an emotion feels larger than life and just out of reach

We appear to develop feelings of love for something when it *almost* makes sense but remains just out of range for clear comprehension—when it feels like there is a level of complexity we grasp for split seconds but cannot hold.

A secondary theme also popped up in these memories: The concepts toward which we felt love elicited a sense of protection and comfort. This is why the concept of humanity alone does not generate love, while the concept of humanity + a comforting idea of oneness *does*. This is why the galaxy alone does not trigger love while the galaxy + a comfort with one’s place in it does.

We suspect others are subject to this same system but have not seen research on it, so we may just come off as crazy here.

**Note from the Research:**

* What about love at first sight? Studies on speed daters looking for the phenomenon found that those who claimed to have experienced it reported an emotional set that looked much more like strong lust than love—specifically an extremely high level of sexual arousal paired with an emotional connection only slightly above average.

## Do All Three Love Systems Really Yield the Same Emotion?

Are we crazy to label romantic, tribal, *and* child/pet-facing love as “love?” Remember how we mentioned that all Skittles actually taste the same, but due to cultural norms around how certain colors are “supposed to taste,” many perceive them as tasting differently? We suspect something similar is happening with love.

Social convention makes it very clear that feelings of strong attachment toward a partner, friends, a political party, a sports team, and humanity are distinct. That said, other cultures often use different terms when discussing what our society categorizes as a singular “love” emotion. While we commonly use the word “love” when describing the feeling someone has for their spouse, children, God, and parents, other cultures may use four different words to describe the attachment one feels to each.

The words we use influence how we think about things and may go so far as to influence what we are actually feeling (consider that cultures with gendered language show more gender bias)[[60]](#footnote-60). Even if an emotion generated by meditating on the vastness of space would be called a different emotion than love, when one really focuses on that emotion and attempts to “grab it” and compare it to the emotion felt toward a spouse, one will notice a striking similarity.

Note that while the love pair bond can be created with three or four different sets of inputs, once it is in place, all “love bonds” yield very similar outputs:

* A desire to protect the target
* A general feeling of awe and wonder toward the target
* A strong desire to impress the target
* A desire to merge with the target, be a part of the target, or conceptualize oneself as being uniquely connected to the target

We imagined that an experiment contrasting fMRI data related to political party devotees or sports team fanatics and people in love with a partner would show nearly the same reward pathways lighting up when those subjects are asked to think about said political parties, sports teams, and beloved partners, so we did some snooping and found one:

*“*Neural correlates of long-term intense romantic love”by Acevedo et al. The study roughly confirms our hunch—or at least an assertion that romantic love and the love you have for friends show up the same in fMRI data. That said, the researchers observed that romantic love also features elements associated with NRE not seen in the other love pathways.

## Behaviors Motivated by Love

Now that we’ve explored what makes us love various targets, let’s dive into what that love makes us do.

Some of the more obvious impulses inspired by love include:

* Attempts to impress the target
* Expressions of wonder and admiration toward the target
* A desire to keep the target safe
* Attempts to be closer to the target (by spending more time together, moving in together, expressing distress when the target moves away, etc.)
* Bragging about the target to peers (and poor, uninterested strangers)

We’ll double click on bragging, then expand on some less obvious behaviors that might be motivated by love.

**Bragging About a Target of Love**

We would argue the most bizarrely strong of the “love impulses”—given how surprising it can be when a person first feels it—is the desire to talk to uninterested parties about the target of one’s love. Feeling a strong urge to “shout one’s love from the rooftops” (or plaster it all over social media) appears cross-culturally; thus, we can only assume it is not socialized but instead an inborn instinct. We would suspect this bragging behavior alerts others in your social group that your partner is already committed to a pair-bonded relationship, which may help to reduce potential conflict. Nevertheless, this bragging behavior persists even when the target of one’s love is an abstract concept (like sports teams) or a child (even we cannot resist posting photos of our kid on Facebook).

One cool thing about the impulse to brag about one’s children to members of one’s social group is that you see it play out with many other mammals. Just look up videos of mammals like dogs and ferrets showing their new kids off to their owners. We even found a video of a rescued squirrel exhibiting this behavior, which mystifies us because adult squirrels are not social animals. We suppose this instinct comes from a social ancestor to the Grey Squirrel and is an evolutionary anachronism, but who knows?

**Is Food-Making Behavior Motivated by Love?**

Across cultures, we see phrases like: “The dish was made with love.” It is as if multiple cultures have come to the conclusion the very essence of love is believed to have been magically passed into the dish, which is subsequently consumed by the object of one’s affection. This is a somewhat logical conclusion if, across cultures, people felt an impulse to make these dishes under the influence of “love” and said impulse subsided as the dish was being made.

One interesting thing to note is that across cultures, the types of food one has an impulse to make fall roughly into three categories:

* **Courtship Meals:** Either very sweet or very homey (pies and bento boxes)
* **Children Meals:** A protein and a starch served with a sweet sauce (Salchipapas, omurice, chicken nuggets and fries)
* **Illness Meals:** Some form of broth with starch (Borbor sach mouan, juk, and chicken noodle soup)

We doubt these specific meal types represent an inborn impulse and imagine they are more related to logical ways to construct a healthy meal, but we are amused by the way they repeat eerily across cultures.

Another interesting cross-cultural trend we observe is that women often cook day-to-day foods while males often cook in group settings or when expensive ingredients are being used. To be more specific, female cooking seems more often motivated by love of a specific individual, while male culinary action appears to be driven by group cohesion rituals, such as BBQs. You even see this in matrilineal cultures like the Minangkabau and matriarchal cultures like the Mosuo.

*Counterexample: In the culture of the Tonga (one of the Polynesian cultures), men appear to have done most of the day-to-day cooking. That said, it also appears that most of the day to day cooking in this culture was part of a group cohesion ritual so . . . We are not sure what the takeaway should be.*

We are not sure if this is some inborn difference in the way love is felt or just a common cultural pattern caused by men being more likely to have hunted meat due to their larger size and higher ease of building muscle mass due to having more testosterone.

**Is the Way Love is Experienced Influenced by a Person's Gender?**

We can only provide conjecture because there isn’t good research on gender differences in the expression of love—all we could find was a lot of obviously biased stuff from the ’70s and ’80s tied to archaic theories like “the color wheel theory of love” that attempts to classify the pair-bonding emotion as a set of emotions based on whether it expresses itself in ways deemed socially healthy or not.

We did find one clear delineation in existing research data, but we believe it to be socialized, as we have not seen it remarked on in other cultures:

* Love drives men more than women to engage in joint activities with the subjects of their love (perhaps because men are socialized to believe the way to demonstrate love is through classically romantic activities)
* Love drives women more than men to admire and respect their loved ones, while also demonstrating deference by being less assertive and more accommodating toward those they love (this is likely a socialized response tied to classic gender roles)

We tried to see if we could piece together anything ourselves by looking for studies of dating patterns and gendered work in a number of cultures, with special effort to include cultures in which women have more power than men or in which there are unique dating/marriage patterns. Then, we looked for any practices that all these cultures either shared or didn’t explicitly *not* share. However, these studies were never as exhaustive as we needed them to be to note anything other than the occasional common ritual. Worse, there were always complicating factors. For example, we found a tendency for men to go on long journeys to show love across cultures, but even if this aspect of love wasn’t felt more by men than women, women would be put at more risk (think: Rape) on a solo pilgrimage than a male, so cultures naturally would have tended to evolve this as a male-specific expression of love.

We also were usually able to find an exception when we thought there were no counterexamples to a practice. Consider the common role females take as the primary care provider to children: We found one counterexample to this in a small African tribe called the Aka. In this tribe of about 20,000 people, men spend a disproportionate amount of time with infants—even going so far as to breastfeed infants. However, despite some wishful reporting to the contrary, it appears this is mostly only something lower-status men in Aka society do. Also, the extent of this behavior may have been overreported because in the Aka tribe, male and female partners do most activities, such as hunting, together. Given that male involvement in infant care was “proven” by how often a male was within arm’s reach of a child, the above fact would complicate this.

We would love to see a cross-cultural study that looked to see if one gender disproportionately performed certain rituals for a romantic partner, but as things stand we would feel uncomfortable claiming that the expression of love is different between genders in all areas but one. Society is awash with the idea that love leads to sexual attraction in women and sexual attraction leads to love in men. Some research even claims to back this up, but we find it to be neither abundant nor terribly well-constructed. We think this notion is wrong and more a product of societal ideas about men and women, with the stereotype being that men are more driven by sex, whereas women are more driven by love.

We theorize that the opposite is likely true: That sex triggers the love emotion in women more than it does in men, and men are much more likely to develop a love attachment to an individual who has had no intimate (or even significant interpersonal) interaction with them. This would explain the higher portion of male stalkers who attribute their stalking behavior to love. Still, the claim that these processes, if accurate, mean expressions of love are gendered is kind of cheating, as the processes have more to do with the higher levels of oxytocin females produce during sex, which increases the speed of pair bonding with a partner and thus love.

## You Don’t Love a Person

No human has ever loved another human, ever. A human can only love the *idea* of another human—the image one has of them in one’s mind. This image may or may not accurately represent the subject of one’s affection. Problems emerge when one’s image of the subject of their affection (often rather idealized) ultimately proves to be inaccurate. Plenty of people have fallen into deep states of denial, unable to see very apparent flaws in their loved ones or recognize discrepancies in the target’s behaviors. Such delusions can lead a stalker, for example, to not realize that their target does not even know them.

## The Genetics of Love

Just as genes influence our libidos, our genes influence how we experience love. Specifically, the Oxytocin Receptor gene (OXTR) has been shown to be tied to marital stability by studies at Binghamton University. Essentially, different people appear to experience oxytocin (the chemical that causes the feeling of love) in different ways, which drives some individuals to be born feeling love more strongly than others. Differences in how OXTR across individuals likely lead to inborn differences influencing how long it takes to form a “love” attachment to others and how long these attachments last. At this point, most studies done on this gene have been really small (under one hundred participants), but we would be excited to see this field expand.

# Leveraging Arousal for Fun & Profit

As we approach the end of the book’s core, let’s reflect on how knowledge of involuntary arousal systems can be leveraged for personal gain. Some people are dedicated to extracting as many positive emotions from their short lives as possible, while others choose to maximize some effect they hope to have on the world. Both groups can utilize knowledge of sexual arousal to their advantage. We will address each group in turn, providing tips on maximizing the desired outcome in each scenario.

## Strip Mining Positive Emotional States

Setting up a strip mining operation to extract as much positive emotion from life as possible is not straightforward because things that arouse us rarely align with our self-images. A woman may get turned on when a man forcefully exerts dominance over her while simultaneously feeling horrible about not embodying characteristics she associates with being a strong, independent female leader. A husband may enjoy having sex with lots of novel women but feel horrible when doing so because he also loves his primary partner and knows his extramarital affairs hurt her emotionally. What’s a girl to do if she extracts happiness from seeing the love of her life happy, but the love of her life extracts pleasure through being hit and verbally humiliated? Our disgusting human brains certainly don’t make this easy on us.

Something that activates pleasure through one pathway, like arousal, may simultaneously activate an aversive emotion through another pathway—or put one in an unfavorable position (e.g., arousal from flashing strangers). Those lucky few with cliché self-images who are in a traditional relationship and whose arousal systems are 100% vanilla by our present society’s standards will experience almost no conflict in the output of these systems. The far-more-common masses who are statistically normal—but not in a societally vanilla way—will have to contend with the fact that their brains suck when it comes to strip mining happiness from life.

**How can people “outsmart” their own systems for outputting positive emotional states?**

First: Identify the things that provide positive emotions you cannot change (like arousal patterns and amourality patterns[[61]](#footnote-61)). Next: Alter the things that provide positive emotional states you *can* change (such as your internal self-image) to more easily extract positive emotions from the pathways that *can’t* be changed.

You will quickly notice that your ideal self-identity is the most malleable thing from which you derive positive emotional states. Admittedly, rewriting your entire self-identity just to optimize something like positive emotional states will come off as draconian to most. Fortunately, there is another option.

All humans have mental models of people they meet. Humans use these models to attempt to predict others’ behavior patterns (or generate another's side of an argument when arguing with them in one’s head long after the real argument ended).

This same mental modeling system may be used to generate most of the emotions people feel. Essentially, each person’s brain has a mental model—think of it as a character sheet—that describes them to themselves. When subconsciously deciding how to react to any given situation, our brains refer to this mental model—this character sheet—and ask: “How would this character feel about X? How would they react?” before determining how to act and establishing which emotions to produce. The resulting output will be filtered and modulated by a few other factors, such as sleepiness, hunger, coldness, pain, etc., but the model being referenced is immensely influential. These systems look for environmental cues and almost always change when a person dramatically switches between environments. This is also why some studies found that individuals lost their heroin addictions at a rate of 95% when coming home from Vietnam—the environments and daily lives of ex-soldiers upon returning from war were different enough that many rewrote their internal character sheets and as a result, even their most basic impulses were changed (for more on this theory, read: *The Pragmatist’s Guide to Life).*

Here is the trick: Humans do not maintain just *one* self-image that determines what emotional output they receive: They actually have *several* internal models that activate in different environments. The self-images our brains reference at school are usually different from those we reference at work, which in turn usually differ from the internal self-models we pull from when around family. This is why we often lapse into behavior patterns we have long since grown out of when home for the holidays and around family members. Heck, as humans, we can even create temporary self-images and pretty effectively adapt to them—this is, to a certain extent, the point of sexual roleplay.

People most commonly switch internal mental models when switching roles (i.e., from lawyer to mother, student to boyfriend, rockstar to daughter, etc.), clothing, activities, and environments. We are much like actors on stages, looking for cues from costumes and sets to determine who we are, what emotions we should be feeling, and how we should be acting.

You can leverage the fact that people have various internal mental models to create extra, intentionally made models that (1) can be activated by a certain setting, change of clothes, ritual, or other cue, and (2) reflect people whose emotional sets would be easy to maximize through the sexuality and amourality you happen to have.

**People use this trick all the time. This is why BDSM communities often use very specific and elaborate signals for scenes. These signals make the internal model switch easier and prevent bleed over from other self-images.** For example, people may perform an elaborate ritual in unusual clothing, in an unusual location, in which one partner puts a collar on another. Everything associated with the clothing, location, ritual, and interactions one has in this BDSM context is completely alien to anything one may encounter in one’s daily life, and yet they are internally consistent across BDSM contexts. One can live free of worry that they will accidentally walk into a dungeon at work or have to wear a collar to school; thus, there is no concern one will have other contexts activate/pollute one’s BDSM self-image.

The keys to executing on this strategy involve intentionally building an additional internal model as well as a ritual, environment, and outfit that facilitate activation of that model. This can be done in isolation with a partner or in a larger social context. The furry community, a subgroup of people who dress up like animals, exemplifies an excellent execution of this strategy: They create entirely new personalities called “fursonas” that can differentiate from their day-to-day persona in everything from disposition to gender, accent, and fictionalized life history.

Furries have an advantage over the BDSM community in that the identity one adopts within it differs so wildly from one’s day-to-day internal model there is no risk of bleed over. This yields less cognitive dissonance when one reflects on the actions in which one’s sexual identity indulges. For example, if one’s day-to-day internal model hates the idea of being degraded, it will not cause as much cognitive dissonance if, rather than one’s day-to-day self, a half-fox-half-dragon named Misty Sunrise gets degraded*.[[62]](#footnote-62)*

The one catch with this approach is that, even if one can inhabit a different personality in the moment, it can be very difficult to rationalize that personality’s actions afterward, upon returning to regularly scheduled programming. It is common for people to try out the kink scene only to leave after they realize how disgusted their predominant internal model is with the fact that they enjoyed something like rape play.

## Using Sexual Arousal, Sexual Aversion, & Love to Increase Efficiency

While some people seek to maximize fulfillment, love, arousal, and other pleasurable emotional states, others select a specific value or metric to maximize in their lives, based on an analysis of the human condition through whatever lens (religious or secular) they choose. The manner in which people come to these sorts of conclusions is explored in depth in *The Pragmatist’s Guide to Life.* Let’s focus on how we can manipulate arousal-adjacent systems to better achieve such goals.

The most useful of the pathways discussed in this book, when it comes to achieving such goals, are the dominance and submission pathways. While these pathways can generate arousal, they actually represent complicated pre-programmed mental states designed to inspire specific behavior patterns that don’t necessarily instigate arousal (it all depends on context).

Consider religious submission displays, such as kneeling, hand clasping (part of a middle ages hand-binding ritual), talk of lords and masters, self-flagellation, having to obey commands to abstain from certain foods/activities, and tefillin. These patterns do not instigate arousal in religious contexts, but they are clearly borrowing from some deep-seated mental systems that lead to the co-evolution of similar displays in BDSM dungeons.

While BDSM sometimes does steal paraphernalia and rituals from religions, a look into the historical origins of BDSM accessories and practices that resemble religious ephemera conclusively reveals that—outside of maybe self-flagellation—they were not borrowed from religious displays. Rather, eerily similar BDSM displays evolved completely independently to fulfill the same, deep subconscious needs of our submission systems. In other words, behavioral sets associated with the submission system appear to have remarkable cross-cultural similarities in both arousing and non-arousing contexts, hence they likely represent some “pre-programed” behavioral set.

To be clear: We do not think that religious rituals are activating sexual arousal pathways. We highlight the similarities to make the exact opposite point. Human submission systems appear to trigger a primal feeling of satisfaction that is deeper and more basic than sexual satisfaction. Dominance and submission need not always be about sex and sexual arousal.

If amassing power or wealth is critical to a given person’s goals, they may be better off leveraging the power of submission. Historically this pathway has been used to great effect through an “all-in” submission to something a person sees as worthy of their submission. This master doesn’t need to be another human being; it can also be a more abstract concept or goal—such as the preservation of freedom.

By exploring pathways that originally evolved to help our ancestors know their place within the tribe, we can learn to manipulate them (and the mental states they create) to better achieve our goals. It is much easier to set aside all the silly distractions of life, all our vanity, all our insecurities, and all our fears when leveraging deeply rooted submissive instincts and surrendering to a master—even with that master being something so abstract as animal rights, aesthetics, learning, independent thought, or the human race. In its obsession with personal liberty, secular society belittles our ancient and deeply optimized submission systems.

There are also huge benefits to glean from our subconscious dominance systems. Asserting dominance can help humans suppress distracting emotions. It is very hard to both be in a dominant mental state and be sad, angry, or afraid, just as it is hard to see someone expressing sadness, anger, or fear as truly dominant. Alas, given how much secular society glorifies victims and indulgence in stress while vilifying the concept of presumed power over other people, most people grow up without the evoked set necessary to tap into this ancient part of our consciousness.

How does one salvage this old, rusted, heavy-lifting machinery built through evolutionary pressures and left dormant by secular education? First, learn to indulge in a pathway’s purest form by attempting to empathize (perhaps through daydreaming) with fictional characters you develop from scratch—characters who are naturally dominant and submissive. Next, ramp up the system yourself in small scenes with a partner. We explicitly recommend that these scenes not be sexual. Even if an individual is highly aroused by dominance and submission, these pathways can be activated without arousal, which is the form of dominance and/or submission you will want to learn to use in your daily life. As a side benefit, once you learn to utilize dominance and submission in a non-arousing context, you can then experiment with them in an arousing one.

We don’t want to sound as though we have a beef with secular education, but in comparison to older religious education systems, it completely fails to guide some really important elements of human development that are critical to cognitive health. Education isn’t just about filling a brain with information; it’s about exercising specific mental pathways that play an important role in brain development.

For example, in addition to teaching people how to engage their submission pathways, almost every religious education system teaches kids how to go without something they want for a period of time for seemingly arbitrary reasons (think: Ramadan, Passover, or Lent), which plays a critical role in inhibitory pathway development in the prefrontal cortex. These inhibitory pathways are necessary to “shut down” intrusive thoughts and impulses. Not being able to shut down intrusive thoughts leads to a number of mental issues, including anxiety (perhaps this is why anxiety is more common—and growing at an alarming pace—in secular countries). When this part of the brain is not well exercised due to a paucity of opt-in yearly or weekly periods of austerity, it will have a very hard time preventing negative emotional states from snowballing. (This silly little rant is merely our interpretation of the data and not a consensus opinion of the scientific community—even if we are right, mental issues like anxiety are complicated and have many contributing factors.)

# Sexuality & Morality

As we reach our conclusion, it's time to focus on takeaways. If we could get this book to nudge just *one* idea into the popular consciousness, it would be that a person's sexual aversions are just as much a part of their sexuality as the things that turn them on—and that turn offs and turn ons are likely operating off the same systems.

As we are not given a framework for accepting and normalizing our sexual aversions, it is easy for ideological extremes to confuse individual sexual aversion with moral truths. This leads some to impose worldviews on others that are corrupted by their own sexual predilections.

Ideologically, a man may believe a woman should be free to sleep with as many individuals as she wants, but because he personally has a strong sexual aversion to promiscuity, as some men do, extremely promiscuous women will trigger a “disgust/ick” reaction in him (this reaction likely evolved to ensure men didn’t choose partners who increase their odds of accidentally spending resources raising children that were not their own). If he did not understand the biological and amoral origins of his instinctual aversion to promiscuous women, he might try to rationalize that feeling by concluding that promiscuous women are morally bankrupt.

This very thinking is why people used to judge the deformed and diseased so harshly. It used to be common for people to view suffering from something like leprosy as a sign of moral failings on the part of a victim. Upon seeing those with disease and deformities, people received a strong aversion response (likely evolved to encourage us to distance ourselves from people with communicable diseases) and because they felt an aversion response when looking at these people, they assumed these people must somehow be immoral.

Humans still feel this aversion response today (though we might be able to desensitize ourselves to it through overexposure). Nevertheless, our society has evolved in this respect to a point at which we can feel this biological aversion without letting it interfere with our judgments of the morality of sick and deformed people. Hopefully someday, we will manage to achieve the same level of enlightenment with humans’ sexual attractions and aversions.

On a related note: Present society's failure to adequately accept the unchangeable sexual aversions with which we are born has compounded the obstacles in some groups’ fights against discrimination. Some advocacy groups push away potential supporters because they cannot understand how someone can have an involuntary sexual aversion to them without seeing them, personally, as gross. This is unfortunate—most people would think the idea of two elderly retirement home residents in a relationship is sweet and support their relationship, but nevertheless be grossed out by the idea of them having sex.

Even well-intentioned moral policing of what turns people on can trigger bad outcomes. To deal with the reality that many women experience sexual arousal from violent rape, some have taken to saying that it is not “real rape” that turns women on; rather, some argue that women are turned on by “fantasized rape” or “fake rape.” This is true for some people, but it is categorically not true for others. When you start making statements like this—that real rape doesn’t turn any woman on—what does it mean when a woman orgasms while *actually* being raped? What if she finds herself fantasizing about it later or roleplaying the experience with her partner? Does that mean she really wanted it? Does that mean it wasn’t a real case of rape because the victim orgasmed or had intrusive fantasies about it after the fact?

Trying to signal how enlightened you are by arguing against the realities of our twisted biology and world has *real* effects on *real* people.

* Erasing certain realities of people’s lives that are inconvenient to a given ideological philosophy—or that feel gross—does not make one morally superior or even good.
* Trying to force someone to not find something aversive is no different than trying to force an individual to change what arouses them.
* Just because something elicits an “ick” reaction does not mean that thing is immoral, just as something that turns you on isn't necessarily moral.
* Pay extra attention to your moral judgments of things that illicit an aversive reaction, as you will be subconsciously biased against them and likely to look for ways to justify your disgust.

# Conclusion: Relationships, Sex, & Society

By scrutinizing kinks and their implications, we journeyed through a wealth of theories, findings, and observations about human sexuality. To tie things up, let’s discuss the implications of human sexuality on relationships, sex, and modern society. Think of this chapter as an exploration of how the ghosts of early human societies, traditions, relationships, and arousal patterns haunt our modern dating world.

Why is this such an important topic?

Humans living in the 21st-century experience three sets of drives, each at odds with one another:

* Behavioral impulses developed over tens of thousands of years of violent patriarchal polygyny
* A culture developed over thousands of years of expansionist patriarchal monogamy
* Aspirations for a peaceful, equal society in which individuals have the luxury of choosing the relationship style they “want”

**Our biology, our culture, and our aspirations for our futures are in a conflict that plays out on the battlegrounds of our relationships, dating, and sex lives.**

The conflict between these drives creates frustrating externalities that destabilize societies and suppress happiness. While there is no easy path around these externalities, there are nevertheless actions that might be taken to ameliorate their effects.

Let's be blunt: Society is not handling the transitions associated with sexual freedom well. Sexual freedom is celebrated with the grave misunderstanding that humans are rational actors and that, when given freedom, humans will utilize it in a way that benefits all. In reality, humans are self-interested animals constantly chasing after an idealized self-image, only experiencing brief moments of lucidity. We do not claim to be any better.

At present, society appears to advocate for:

* Letting people date anyone they want
* Letting people have sex with whomever they want
* Marrying the first person one falls in love with after one’s late twenties
* Forming a long-term, exclusive, monogamous relationship in which both parties have equal power, decision-making abilities, and obligations
* Using this relationship to produce children
* Finding a new partner if things with an existing partner do not work out

We understand why this system sounds like a good idea. These standards grant us freedom and equality while not completely abandoning traditional institutions. Alas, this half measure system just isn’t working.

Explaining why this system isn’t working out requires a bit of context. Let's pick up where we left off in our discussion of how humans likely evolved the kinks they have. In a world in which most humans lived in violent, polygynous, patriarchal cultures, how did we shift from those cultures to the largely monogamous society of a century ago? How did we shift from a large patriarchal monogamous society to the more equitable and idealistic relationship norms pervasive in Western society at present?

While polygynous, patriarchal cultures were likely the norm during early human history, every now and then tribes would pop up with different structures. Some polyandrous, some matriarchal, and some monogamous tribes emerged. Even though they appeared at much lower rates, monogamous cultures outcompeted their polygynous counterparts once humans started living in settlements above certain population levels.

A look at the data explains why this happened: When researchers control for socioeconomic conditions, polygynous societies show much higher rates of rape, murder, assault, robbery, fraud, spousal abuse, and prostitution (see the 2009 paper: *The puzzle of monogamous marriage* for a really interesting discussion of this). Why do we see this trend? Because unattached men act as caustic free radicals in a society. When the default relationship structure of a society in which men and women are born at about equal rates involves multiple wives pairing with a single man, you are inevitably going to end up with a lot of single men. Even today, terrorist activity in a region is highly correlated with the number of single men within it. We call the caustic nature of single males within a society the “free radical problem,” as they remind us of free radicals in physics: Unattached electrons that make chemicals highly caustic. It is little wonder that the monogamous tribes outcompeted their polygynous neighbors in almost every region of the world after human settlements reached a certain size because when you pair men and women off at a one-to-one ratio, the number of single men is dramatically lower.

If you want a good visualization, imagine a petri dish of agar (a sort of gel that acts as a solid growth medium). At first, the plate shows 98% red bacterial growths because red bacteria naturally form at higher rates than any other form of growth, but 2% of what isn’t the red bacteria happens to be penicillin. Even though penicillin appears at much lower rates, over a few weeks almost the only thing left in the agar is penicillin.

**Notes from the Research:**

* The negative effects of intrasexual competition aren't just seen in men within polygynous societies. For example, across sub-Saharan Africa, women are more than twice as likely to justify wife beating as men are! This makes a twisted kind of sense. If you ask a woman in a monogamous society, whether or not she is comfortable with a husband beating women, she thinks of that practice in terms of a husband beating *her*, but in a polygynous society, women may contextualize the concept as husband beating *other irritating women* with whom they have to compete. Still, it is kind of extreme that in some regions, a man’s wives are even more into his wife beating than he is on average. This exemplifies how high intersex competition makes it very difficult to form a cohesive “female agenda” in a polygynous society.
* Boko Haram and ISIS exploited marriage inequality among young males by paying the bride-price (money or gifts given to a potential wife’s family) and providing wives for new recruits. Fighting for ISIS gave single men a higher chance of securing a wife. Systems like this may partially explain why conflict is more common in regions in which polygyny is common. When one man can have many wives, there will never be enough women to go around, making war the only realistic way a large portion of males can get wives.
* One study we found looked at regions within monogamous societies in which men vastly outnumbered women (such as mining towns) to see if the lopsided ratio lead to the same social problems observed in polygynous societies and didn’t find any. We don’t know what to make of this, but we always believe in presenting data when it runs counter to our narrative. Perhaps these cultures have not reached the “threshold” of free radicals necessary to cause social problems, men in these societies were able to secure long-distance female partners that tided them over for the time being, or we are totally wrong and the number of single males has nothing to do with unrest in a society and something else about polygynous cultures causes unrest that just happens to highly correlate with the number of single males.

In short, while humans are “naturally” polygynous, monogamy as a social structure is significantly more stable above a certain population threshold. For this reason, societies, religions, and other groups that adopted monogamy or monogamy-ish frameworks outcompeted those that promoted unconstrained polygyny. Because humans have come to cluster in larger and larger population centers for the past few thousand years, the human race has been mostly ruled by societies in which polygyny was only normalized for the top fraction of a percent of the population—if at all (we make this exception, as most of these monogamous societies *did* normalize pseudo-polygynous relationships—such as married couples with mistresses on the side—among the upper echelons of society). Within these historical monogamous cultures, women were by and large still treated as second class citizens and to an extent like possessions of the men they were attached to.

Recently, something very strange happened: People started caring about the wellbeing of other humans. We began to believe that humans had rights and should be treated equally—that people should be able to do what they want and have equal opportunities available to them regardless of any conditions associated with them at birth, be they sex, gender, ethnicity, or sexual orientation. Moreover, we developed the technology—effective birth control—to make rethinking how relationships work a possibility.

Perhaps even more strangely, we began to contextualize love as a good indicator of who one should marry. We cannot stress how strange of a concept this is and how rare it is cross-culturally. It appears this concept began within Western culture through the chivalric literature concept of courtly love, typified in poems like *Lancelot, the Knight of the Cart*. This poem *did not* argue that people should marry whomever they love, but that two people who love each other should have sex regardless of their existing relationships or place in the world.

The idea of courtly love became wildly popular, but not all authors were comfortable with the adultery or interclass romance it implied, so it gradually became sanitized. “OK,” authors began to reason, “Sex with those you romantically love is OK, but you have to marry them first—and if it seems like you are from different classes, we will reveal at the end of the story that you were secretly from the same cast all along.” To put it more simply, the idea that love should be the basis of marriage is not some deep human truth, but rather the product of a trend in the medieval version of pervy romance novels—and the concept of love-based marriages was only added *later in the tradition* because it was the only way to depict characters who loved each-other “at first sight” to have sex without featuring adultery.

This is why early Disney stories descended from this tradition commonly depict two characters meeting and immediately getting married seemingly out of nowhere (a trope made fun of in the movie *Frozen*). Marriage was incidental to the story format, pasted on top of an older tradition like a fig leaf. What was “supposed” to happen in those stories is the princess gets rescued, falls in love, and subsequently bangs the guy who saved her. The idea that you should choose who you marry based on who you love is nothing but an accident derived from a panicked attempt to sensor adultery in pervy medieval novels.

This glamorization of love, combined with the free love movement, birth control, and a belief in human equality, come together to create the theory that if we just let people do what they want sexually, people will all sleep together and learn to love each other through the process, after which people will pair off with the individuals they love most.

Unfortunately, this theory has not proven to be sound.

## Slut Shaming & Impossible Double Standards

Where in the process of moving from patriarchal and monogamous societies to a free, equitable society did everything fall apart? In what ways is the current model not living up to its goals?

Before the rise of gender equality and the sexual revolution, women were disadvantaged in the job market and not offered the same social protections as men. Women were therefore forced to leverage social institutions and cultural norms that encouraged them to trade sexual/romantic access for protection and resources. These systems ranged from the norm of a male breadwinner in a marriage to conventions around males paying for dates and offering gifts.

As women gained more equality within society, this exchange of sex/love for resources became less necessary. A portion of females decided it made sense to just sleep with whoever they desired. This development led to the rise of slut shaming—from both men and women—which produced a “no win” scenario for both the shamed and the shamers.

Let’s take a moment to explain what we mean by this and how it came about. We will start by exploring the economic pressures that caused slut shaming to come to exist as a cultural artifact in women and then discuss why men started slut shaming as well.

**Why Women Engage in Slut Shaming Behavior**

Women slut shame other women more than males do (or almost as much as males do—it depends on your chosen dataset[[63]](#footnote-63)). If presumably women disproportionately suffer from slut shaming, why is this tactic so frequently implemented by women and where did it come from?

Imagine a social group of ten men and ten women going about their lives as societal expectations transitioned away from women trading sexual access for personal investment and toward greater financial independence and “free love.” Two of those women will have sex with anyone regardless of investment given—be that investment emotional or in the form of resources. When given the choice between a woman who wants something in exchange for sexual/romantic access and one who doesn’t, these ten men will usually choose the woman who doesn’t (it’s a strict case of less investment for the same output).

These two women will therefore ruin the sex-for-something-in-exchange economy in the same manner a worker crossing a picket line destroys a union's ability to negotiate. The only way the eight women in this group can protect their ability to trade sexual access for something would be to attach a negative externality to the act of having sex without securing at *least* emotional investment. This negative externality historically manifested as slut shaming.

While slut shaming is usually just social shaming, it can go much further and have massive self-image and career effects on the women targeted. Not only does slut shaming dissuade women from taking this “no-exchange” path through social punishment, but it also lowers the value of these women in the eyes of the men of the group.

While gender equality was being normalized, some women wanted to protect this old sex-in-exchange-for-something(specifically, emotional investment) system, and their only tool for protecting the old system was slut shaming.

This battle was lost generations ago. A study seeking to determine how many dates the average woman has before having sex found the most common response to be zero—that 32% of respondents slept with their current partners *before* their first dates. Despite the war being long over, slut shaming persists as a powerful social artifact of an earlier time. To a great extent, slut shaming represents that aspect of our cultural unconsciousness that always yearns for the past and wants to return to the old system.

Interestingly, once individual women realized they could leverage slut shaming to apply a negative externality to other women's social status and prospects on the dating market, some began to use it as a cudgel to attack any female rival deemed to be a threat (regardless of said rival’s actual sexual behavior). This can be seen in a neat paper from 2004: *‘‘Good Girls’’: Gender, Social Class, and Slut Discourse on Campus*. This study found high status women used slut shaming to prevent lower status women from gaining power within local dominance hierarchies. Even though this cultural artifact no longer serves its original purpose, it is simply too useful a weapon to leave buried anywhere but in the backs of those who threaten us.

Should the average woman wish to have genuinely good odds of securing a well-matched partner within today’s mainstream dating market, she has to undertake actions that will incite derision from her peers, coworkers, and likely even a little voice within her own head (obviously, some women get lucky and secure a partner without flipping this switch, but we doubt even a woman in such a position would claim that luck wasn’t a huge factor in her outcome).

How anyone could think this system is “working” is beyond us. The only way for a woman to realistically compete on the dating market (outside of extremely conservative and religious micro markets) is to take actions that will inspire others to shame her and make her feel poorly about herself.

To be clear: Decisions to engage in slut shaming, the exchange of sex for emotional investment, and promiscuity as a relationship strategy are not consciously made for the most part. People’s hands are being forced, in subconscious ways and in aggregate, by “market forces.”

**Notes from the Research:**

* If you are inclined to believe that slut shaming of women by women is merely a case of women being brainwashed by society and not a subconscious (or conscious) tactic to discredit one’s sexual rivals, we would direct you to a few studies: “Intrasexual peer aggression and dating behavior during adolescence: an evolutionary perspective” in *Aggressive Behavior*, “A sexual selection theory longitudinal analysis of sexual segregation and integration in early adolescence” in the *Journal of Experimental Child Psychology*, and “Indirect peer aggression in adolescence and reproductive behavior” in *Evolutionary Psychology*—all of which show these tactics are frequently employed, very effective at securing mates, and effective at preventing targets of them from securing mates.
* A 2018 study published in *Evolution and Human Behavior* showed both men and women to be less trusting of a woman who looks sexually accessible. Male and female participants alike were less altruistic toward a woman who looked sexually available, but only female participants appeared to go out of their way to punish these women in a costly fashion. Specifically, in the ultimatum game, female participants on average would forgo a potential reward themselves in order to punish a woman who looked sexually available while the average male participant did not.   
  In the ultimatum game, an individual wins a sum of money and chooses how much to give to a third party. That third party—aware of how the sum of money was split—can choose to not accept the amount given to them, and if they proceed to reject the offer, neither individual gets anything. Female participants in this study frequently preferred that neither participant receive anything if the other player was dressed in a sexually accessible fashion, while men appeared not to care.

**Why Men Engage in Slut Shaming Behavior**

A world in which women expect nothing in exchange for sexual access may sound like a dream to men, but the reality of that world is as bad for men as it is for women. In a marketplace in which men bear no cost for female sexual access, all of the females sort to the same, few, high-value men. This is not conjecture—it is easily observable in the data.

A male of average attractiveness is liked by only 1 out of 115 women on Tinder. The average man should expect less than a 1% interest rate on the dating market. Keep in mind that half of men are below average. Men therefore benefit from slut shaming as well. If the average guy can convince women to play in a one-male-to-one-female system, he is much more likely to secure sexual access to a female. The fact that there is a price associated with female sexual access (whether that price manifests as fidelity, emotional investment, or financial investment) ironically works to the benefit of the majority of men.

Problems associated with a lopsided sexual market (a small number of men sleeping with the majority of women; women failing to secure commitment or emotional investment from men) is getting worse every year as society gets more comfortable with sexual freedom. **According to one study, 28% of men between 18-30 report not having had sex in the last year—that’s almost 300% higher than the same figure one decade ago.** Women, on the other hand, show no such effect. When the blog Overcoming Bias did a follow up on this figure to determine whether women were having sex with older men or all sorting to the most desirable younger men, they overwhelmingly concluded that women were sorting to the same, more desirable younger men.

Partially as a result of this, many “below average” men have just clocked out of the game, with 35% of men between the ages of 18 and 35 living with their parents compared to just 29% of women in the same age group. While we don’t think it is a good thing that so many guys are primarily motivated towards success through a desire to secure a partner, we think it would be imprudent to deny that it’s a huge motivating factor for many men and when it is clear to a man that he does not have a chance in the new game, his motivation will be dampened. This has obvious negative effects on society.

**Again, this battle is long lost, but its cultural imprint is strong. It overlaps with that left by our monogamous forefathers and the behavioral impulses of our patriarchal polygynous ancestors. These mixed imprints create a dating environment that is complicated and, by our judgment, broken.** The Gini coefficient of 0.58 for men in the dating market makes the market less equal than 95.1% of the world's economies. Women have sorted to the highest value males while leaving low-value males angry and desperate and high-value males with no motivation to emotionally invest in relationships. In fact, the data shows this increasing as a trend, with the number of men having regular sex dropping precipitously over the past couple decades while the number of women having sex has only dropped slightly.

This failed dating market is worse than a failed economy because even the one group who seems to be on top—the “rich,” high-value men—are not benefiting in this failed state. Because high-value men are not motivated to invest in relationships, they form loving pair bonds at much lower rates than they would in a stable relationship market (the stats are really clear on this point: More attractive men invest less emotionally in relationships). In other words, while high-value men have easy access to sex when contrasted with lower value men, they are less likely to get to feel love (and this is just our opinion, but life without love strikes us as just as depressing as life without sex).

**In the end, no one is really happy with this situation.**

Many women feel inexorably drawn into a life of serial monogamy with men who have little emotional dedication to them. They play a game of increasingly pointless musical chairs until they realize their biological drive to have children hit them harder than they anticipated, get fed up being asked why they don’t have a spouse, or start to worry about spending life alone. As many women who hit these junctures don’t have enough time to secure the man of their dreams, they are left in a mad scramble for a pool of subpar and bitter partners (see *The Pragmatist’s Guide to Relationships* for a breakdown of the stats on this—desperate dash for subpar male partners isn’t just a stereotype, but rather a reality of the current marriage market for many players). Alternatively, some women decide to veer off the path society has set for them but must then contend with peers and family constantly asking about their current score in a game they have decided not to play.

Meanwhile, below-average men are getting no partners until the ladies’ game of musical chairs stops, leaving them feeling cheated, and high-value men are so inundated by potential partners, they don’t value any enough to form the deep emotional connections many humans require in order to glean a feeling for fulfillment. The data bears all this out: Sex rates have plummeted for millennials, especially millennial males, as have marriage rates.

These trends stand out clearly in marriage data, which shows marriage rates halving in the last few decades. The data makes it clear that this isn't because people want marriage less or that people are more disillusioned with the concept. Interest rates in marriage are only declining slightly, not at levels big enough to explain the drop in actual marriage rates. What the data seems to show is that men who are getting regular sex easily don’t want to get married until they are much older. (On the bright side, divorce rates are also going way down, perhaps due to the later marriage ages.)

To put all this simply: The old system of gender inequality, chastity until marriage, and pseudo-arranged marriages sucked and needed to be replaced, but the new system we have adopted doesn’t “work” either. Worse, the period of transition between the two systems created cultural artifacts that make the new system uniquely unpleasant.

The problem isn’t that we have insufficiently embraced gender equality and sexual freedom—the problem is that sexual freedom, at least in a sex-in-exchange-for-nothing sense with no other social norms applied, doesn’t work on a societal level. Like communism, sexual freedom sounds great until one remembers to account for the fact that we are humans and humans are self-interested monsters impotently grasping at our own sentience like a middle school virgin attempting to unfasten a bra.

Quick note: This is not a problem for people in gay dating markets, which is why we do not discuss them much in this context. Gay dating markets aren’t perfect, but not as completely pigeon diddled as heterosexual markets at the moment.

## The Future of Sex & Relationships

Given its Gini coefficient (demonstrating profound inequality at the level of a collapsing, war-torn country), the current relationships system is transparently not stable. We can already see where things might be going, which makes this era of human sex and relationships uniquely fascinating and pivotal. We used kinks to explore where we came from as a species, then looked at how our sexualities and amouralities interacted with our evolving cultures to take us to where we are today. But where are we going? What will human dating and marriage look like 50 years from now?

We suspect society will split into a few cohesive philosophies around relationships and that these philosophies will gradually eat more and more mindshare until we reach a point at which the relationship philosophy to which a person subscribes becomes a key part of their public identity.

Let's briefly explore a few relationship philosophies that we foresee becoming more prominent—with an understanding that we are presenting them in a generalized light (people will obviously deviate to create their own iteration of each).

**Musical Chair Monogamy:** This is the default societal model at present. Essentially, people go through a series of monogamous relationships that last a few months to a few years, then get engaged to the first partner with whom they spend more than three and a half years (after a certain age—between 25 and 35—with this age going up depending on socioeconomic status). After getting married, they practice a dual-income family structure (in which both partners work) and have zero to two children who are raised either by the state or a corporation.

**TradCon Monogamy:** There has been a recent resurgence of interest in a 1950s-inspired relationship fantasy, which involves people essentially cosplaying as the common trope of a “traditional,” nuclear family with a male breadwinner husband, stay-at-home home-keeping wife, and two or three kids. This model is often called TradCon (or traditional conservative). In a TradCon relationship, a submissive partner stays at home to raise the kids, cook, and clean while a dominant partner brings in an income and makes most of the rules.

During the dating phase, there is an expectation of significantly more chastity in this relationship model—as well as an expectation that one will find the person they marry at a younger age than in musical chair monogamy. One shift we expect to see in the TradCon model going forward is a greater emphasis on stay-at-home schooling. Given that mainstream culture paints TradCons more and more as something “other,” it only makes sense that those who ascribe to it will lean into their dedication to the model and its core differentiating feature: the exclusive dedication of one partner to the home and children.

**The Poly Community:** While the poly community is often thought of as being defined by individuals who have multiple sexual or romantic partners, it should really be thought of as more of a microculture dedicated to experimenting with and enforcing new cultural norms to combat the problems of the current system. This microculture includes some individuals who may define their relationship as “relationship anarchy” and others that would appear indistinct from monogamous couples—albeit with extended, close support networks—to an outsider (the poly community is often used as a model for the development of other new models for child rearing, such as the community-focused or “village” model promoted by some activists looking for alternatives to the nuclear family structure).

Essentially, the poly community should be thought of as people who agree to a new set of cultural norms about what should and should not be OK when dating and communicating within relationships. For example, poly culture alters expectations around whether monogamy must be explicitly established, what should be explicitly communicated before certain stages of the relationship, how disputes are handled, default assumptions about how finances should be distributed, and how consent is defined (how frequently it needs to be established, etc.). These cultural norms effectively ameliorate many of the larger dating market’s problems—be they slut shaming or the effects of the sex in exchange for emotional investment. The downside of these cultural norms is that they can make it difficult for those with more conservative sensibilities to participate in this community and create barriers to entry for new participants.

**The Kink World:** Seen cropping up around a myriad of kink communities—be they BDSM or furry-oriented—there are a number of quickly growing relationship models that explore new methods of interaction. Interestingly, most of these communities have borrowed rulesets created by the poly community (or maybe it’s the other way around). If society becomes increasingly fragmented, we expect various factions of kink lifestyles to meld with fringe iterations of other relationship styles rather than remain as independent as they are now.

For example, groups like the BDSM community are already drifting toward becoming a subgroup of the poly community due to their overlapping cultural norms, while the Taken in Hand faction has drifted toward becoming an extremist subgroup of the TradCon community (the Taken in Hand community promotes a TradCon-like relationship with more-BDSM-edgeplay-like frills, such as consensual non-consent, total power exchange, and impact play).

*As a fun aside, consider the Goreans: A mostly extinct faction of the kink world that was fairly large in the early days of the internet and which proposed such a crazy solution to society’s sex and relationship market failures that we cannot help but highlight it.*

*Basically, Goreans said: “Oh, so now we get to do whatever we want? Well, let’s throw out all that monogamy crap and dismiss these silly aspirations for a peaceful, equal future. Let’s even throw out the myth that society used to be a better place. Let’s do things the way our early ancestors did them. Yup, let's bring back slavery, buying and selling women, and traditional masculinity. Heck, you know what? Let's also bring back tons of pointless rituals and traditions, but since we don’t remember the ones our distant ancestors used, let’s just lift them from a series of science fiction books (Gor).”*

*The Gorean approach to relationships is beautiful in its simplicity, and we love how it tackles present relationship market failures from an angle that even we wouldn’t have considered, we wouldn't be shocked if we saw something like it resurface.*

**The Red Pill Model:** The Red Pill started as a group of men who decided to leverage society’s unfairness to their advantage. The group got its name from *The Matrix*, in which the protagonist, Neo, is presented with a red pill and a blue pill—the red pill representing the true, sick reality of the world and the blue pill representing an unfulfilling, yet pleasant fantasy. Men who “take the red pill” contrast the lie they believe society tells—that the only way to secure sex and fulfilling relationships as a man is to be nice and deferential toward women—with what they perceive as reality: That such strategies only work for extremely high-value males.

Now that this movement has had time to mature and grow in size, it has had to develop new solutions for stable, long-term relationships. To this end, The Red Pill community almost presents an ideological counterpoint to the poly community in that it also explores varying relationship models and internally discusses them through “field reports” on online forums, comparing their relative efficacy—but instead of approaching their models from a perspective that presumes equality is one of the core goals of a relationship, Red Pillers do so from a perspective that presumes equality to be an impossibility and that relationship structures must be developed from a self-interested perspective.

More than any of the models discussed so far, The Red Pill does not strongly promote the idea of having children, seeing them as a tool for financial extortion or forcing functions keeping people trapped in suboptimal relationships. We expect this to change within the next decade or so and are already seeing movement in that direction.

*Note: You may be tempted to ask if there is a female-centric equivalent to The Red Pill, which somewhat misses the point. Yes, there are female Red Pillers who theorize on relationship models, but since The Red Pill presumes male dominance to be the key to a healthy relationship and grew out of pick-up artist culture, you intrinsically will not see many female thought leaders.*

**Intentional Singlehood:** Right now, there is a passive understanding that staying single is an option; however, many regard singlehood as an option of last resort and certainly not as compatible with a desire to have children. We expect this to change in the next couple of decades. Both females and males are shortchanged in their own ways by the current system, and after exposure to a certain number of firsthand, second hand, and anticipated bad experiences, many are deciding the game is not worth playing.

MGTOW, men going their own way, is the most cohesive of these ideological movements. While MTGOW claims as members anyone who recognizes the suboptimal nature of our current dating and relationship markets and decides to engage in relationships through their own set of rules, it is primarily composed of men who have chosen intentional singlehood. Historically there have been cohesive female movements with similar goals, and we expect a few to arise again in the near future.

This is a movement to watch closely, especially concerning how intentionally single people decide to handle child-rearing. The rise of co-parenting shows one model of how this might work. Check out the website CoParent.com, which acts like a sperm donor network for both intentionally single individuals and gay couples of different genders who want to share child-rearing responsibilities. That said, right now most of the movement is either childless or involves children from previous relationships.

**The Family First Model:** In this model, an individual doesn’t date through college—or dates very little—and subsequently has a spouse chosen for them by their parents. That said, sometimes these individuals have significant influence over their final choice, with parents lining up a number of candidates for them to meet—or heavily influencing who they date—until they “click” with a winner).

Grandparents often live with the family or in a nearby community and play a heavy role in childcare while parents earn a dual income. Individuals in this model are usually expected to have *at least* one kid but rarely go above four.

Despite drawing derision from those with “modern sensibilities,” this model has a lot to recommend it from a statistical perspective and is more likely to lead to a loving, stable relationship than the musical chairs model (See *The Pragmatist’s Guide to Relationships* for more info on the stats here).

**The NeoCorp Model:** The historic precursor to the NeoCorp model, called a “corporate family,” was the predominant family model until the last century or so that we personally see as being unfairly ignored. The corporate family model is defined as a social unit organized around a family business. The family unit itself consisted of 7.5 children (historically), unmarried relatives, and live-in staff (who are seen as family members and frequently marry into the family, contrasting them with the type of staff typically employed by TradCon families and family first families). Rather than being raised by the state (as they are in the dual-earner model), raised by one parent (as they are in the TradCon model), or raised by grandparents (as they are in the family first model), children of corporate families were integrated into adults’ daily lives. Another unique feature of the corporate family involved parents interacting with society as a single unit rather than as two separate people with “their own lives.”

Dating was unique in these family structures, as people optimized for partners who could improve them and contribute to the corporate family unit (and not so much for sexual attraction, love, or a personality match).

Steven Ruggles, a professor of history and population studies at the University of Minnesota, estimates that in 1800, 90% of American families were corporate families. Corporate families largely went extinct with the rise of male wage labor and the resulting “male breadwinner” / TradCon family structure of the 1900s, which, starting in the 1970s, was largely replaced by the “dual earner” family structure and its corresponding musical chair model (facilitated by the rise of female wage labor).

We don’t like the corporate family model because of its traditional nature. Things are not better because they are old. We highlight the “traditional” nature of corporate families to highlight the irony of that many touting the TradCon model are under the impression it represents a traditional way of life.

From our perspective, those trying to recreate the TradCon style relationship—typified by 1950s sitcoms—are just replicating a wacky social experiment that lasted barely half a century. We theorize that this male-breadwinner-led nuclear family model is only widely known today because it happened to coincide with a time in which many famous sitcoms were produced(which in turn created broad new standards and tropes that continue to shape our understanding of what is “traditional” and “ideal” in romantic and family life). Interestingly, when writers of that time intentionally portrayed the older corporate family model, they often framed it as scary and threatening, as can be seen in shows like the Addams Family and in movies portraying the cliché mafia families, both of which present fairly good sketches of corporate family operations.

Still, we see many couples living by a revived and adapted version of this model with less structured gender roles, slightly smaller family sizes, different solutions for child rearing, and a more dynamic model of entrepreneurship—hence the term NeoCorp. This is the model we personally use and we expect it to continue to proliferate in line with the rise of remote work and the gig economy.

## A Theoretical Solution

As society is now, is there anything we can do to ameliorate the dating market for individual Pragmatists?

Let's break down the problems with the new model and the old model and see if we can find a solution:

* **Old model:** Little personal choice (parents made or heavily influenced relationship pairings based on their value systems), little flexibility in relationship structure/rules, and strict gender roles that stifle most modern individuals’ potential.
* **New Model:** Ease of finding new partners and low cost of breakups resulting in market failures (little personal investment in the other person and high inter-sex competition leading both men and women to feel screwed). People spend too much time looking for the perfect partner when they could have invested in a relationship in which they and their partner(s) help each other improve as a team.

Could a new model address both sets of problems?

Let’s try a little thought experiment: What if we reinstated arranged marriages, but instead of giving the choice to people’s parents whose values may not be aligned with those of their children, we gave the choice—in some respects, at least—to each individual?

We could have people complete the steps we outline in *The Pragmatist’s Guide to Life* so they might determine their objective function (that which they want to maximize most with their lives) and work out how they want other people to see them. With these fundamentals sorted out, we would have people list their attractions and aversions as explored in this book, select their preferred levels of cognitive integration as explored in *The Pragmatist’s Guide to Relationships*, and state their openness to poly/monogamous relationships. Then, while controlling for similar levels of physical attractiveness, financial wellbeing, educational attainment, and ability to relocate, match these people to long-term relationship partners with well-matched profiles. Given the way love works in humans, these people would almost certainly fall in love after a period of time.

To prevent this platform being used for casual dating and ensure that it is genuinely used as an arranged marriage tool, participants would be expected to deposit some portion of their annual income before being matched. This money would be invested in savings and released after a certain number of years of relationship survival, providing the couple with a meaningful nest egg. Should a couple decide to terminate the relationship, their deposit would not be returned. This security deposit would offer a realistic way out of the relationship that is costly, but not prohibitively so.

We aren’t sure what we would do with broken relationship deposits, as were the organization to retain them, it might incentivize the organization to make bad pairings, and organizational behavior follows incentives. Perhaps the organization would fund itself through the typical two and twenty model common among financial investments, earning two percent of the assets under management and twenty percent of profits made above a certain threshold—but only from funds associated with active relationships. This would create an incentive to create lasting relationships *and* provide couples with good financial return.

This strikes us as a grand idea, but recall that we are completely insane. Because we cannot trust our ideas to have any relation to what a sane, even-minded reader might think, we will leave it up to you whether you think we should put a system like this together. If it sounds interesting to you, email us at Hello@Pragmatist.Guide. If we receive sufficient interest, we will put it together. If we receive a sufficient number of willing participants to make pairings, but not a sufficient number to create a full-blown organization, we will just manage some pairings ourselves and, in the place of a formal organization that engages in financial management, create some contractual mechanism that serves the same function.

# Thanks for Reading

We thank you—from the bottoms of our blackened, mechanical hearts—for reading. We had immense fun putting this book together, as going through the evidence challenged many preconceptions we had. That moment of realization—that delicious: “Well, if I was wrong about X, what other aspects of my worldview were reliant on X as evidence?”—is always such a thrill.

We can only hope the book did the same for you. We hope some of the ideas we presented were new enough to offend you and make you alter some of your beliefs about how human sexuality works.

Many of the theories we shared in this book are probably wrong—radically wrong, even. That said, if people allowed the fear of being radically wrong to keep them from sharing ideas, humankind would be devoid of ideological breakthroughs, philosophical sea changes, and radical paradigm shifts.

If you ever want to chat, send us ideas about future books, provide us with feedback, or present us with challenging counterarguments, shoot us an email: Hello@Pragmatist.Guide. We generally do whatever we can to help other Pragmatists.

**Finally, please leave us a review on Amazon/Goodreads. They make us really, really, really happy.** We give what money we do make off these books to non-profits, so those brilliant, anonymous internet reviews remind us we aren’t wasting our time.

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# Supplement: A Tour of Our Research Findings

After not finding a sufficiently comprehensive picture within the research available to date, we conducted our own comprehensive studies on unusual arousal patterns. The purpose of these studies was to create a quick “charcoal rub” of the human sexual condition and human arousal patterns.

These studies were created using paid participants from a study participant recruiting website called Positly.com. We collected information through simple dynamic surveys (dynamic surveys enable us to ask subjects different questions depending on the initial answers they provide) that were coded using the web application builder GuidedTrack. We recommend both Positly and GuidedTrack to anyone else out there who likes conducting studies to fill in holes in the scientific research on a topic that interests them.

There are two types of readers: One type likes looking at and interpreting data for themselves; the other type wants someone else to digest the data tables and highlight interesting implications in a colorful, entertaining manner that maintains their interest. If you belong to the former group, we enthusiastically encourage you to just skim this section and dig into the stats on your own by only reviewing the data tables.

If you consider yourself a member of the latter group, please ignore the data tables, as most of the information they summarize is covered in the text. We have packaged our exploration of this research survey data in a tongue-in-cheek tour theme, both to make the dry content somewhat more entertaining to read and in an attempt to leverage known heuristics to help people organize details in their minds that would otherwise be a jumble of sequential data points. In a memory palace, the use of shocking visualizations as well as spatial positioning within a fictional world aids recall.

So please, dear reader, step into our nerdy stats vehicle and buckle up.

Our tour starts with the requisite safety video. Before you begin digesting our research findings, we want you to be fully informed of the flaws of our study:

1. We were unable to collect data from people without notifying them first that our study is about sex and kinks. This means our sample population is comprised only of people who were comfortable participating in a study on that subject. Other than that, our study participants were fairly representative of the US population. In cases in which our research overlaps with studies published in peer-reviewed journals, our results do not deviate significantly from mainstream findings, suggesting that our sample population was pretty representative or at least no more biased than other studies.
2. Our study had around 250 participants. While this sample size is large enough to reveal some general trends in a population, it is not large enough to protect us from false positives given the huge number of factors we investigated in our survey. Even if certain data only has a 3% chance of reporting a false correlation, someone testing 100 variables for correlation is likely to find at least one false positive given the sheer number of tests they are running. Think of this study as a rushed charcoal rubbing of human sexuality, rather than an accurate, hyper realistic portrait of the subject. When our study contradicts peer-reviewed research of which we are aware, we assume the peer-reviewed research is correct and highlight the contradiction.
3. We failed to recruit a sufficient number of trans participants to get breakdowns on trans people as a distinct demographic, so whenever we contrast men and women, we do not include participants that identify as trans or non-binary (though as you know from our earlier discussion of this topic, we think a significant portion of the population that identifies as cis may ultimately not be as cis as they would otherwise suppose). We brainstormed methods for sourcing an adequate number of trans participants at a reasonable price that wouldn’t also create a biased pool of participants, but found no viable, economical solution. Were we to recruit trans survey participants from a single community, their answers could be quite biased.  *Why did we not just include trans participants in the pool associated with their gender? Multiple studies show that around 40% of trans individuals report experiencing changes in their sexual attractions during hormonal transition, meaning we would need to test trans people in at least three different groups: No hormonal transition, post hormonal transition, and undergoing hormonal transition. Were we fortunate enough to recruit a sufficiently large group of trans participants, we could ask really detailed questions that parse out stuff like which male arousal patterns are tied to their gender and which male arousal patterns are tied to hormonal states associated with males but divorced from the male gender itself. We find this topic really interesting, as it could unlock how specific hormones affect arousal patterns, so if any of our readers have ideas as to how we might affordably source an unbiased representative pool of trans participants, please email us at Hello@Pragmatist.Guide.*

## The Hall of Arousing Art: An Exploration of Sexual Fantasies

OK everyone: All set? Away we go!

Our tour begins in the Hall of Arousing Art. This should serve as an excellent starting point for our sexual odyssey. Now is the time to get over your sexual hang-ups. Lean back and soak in the racy scenes to your left and right; this is a judgment-free zone and you may ultimately find over the course of this tour that more people are into kinky things than you had originally surmised.

We assigned a “kink” score to men and women who took our study. Much to our surprise, these scores came out more or less equal across genders (23.1 for men; 20.8 for women). This score was derived from the number of non-normative things that reportedly arouse a given study participant. We broadly define non-normative in this context as anything outside of penetrative sex between two consenting humans.

First, we would like to call to your attention the finding that most people don’t have one or two weird things that arouse them—rather, the average person is aroused by a whopping 22 weird things. Do you ever feel ashamed because a myriad of wacky things turns you on? You might be more average than you had thought.

Second, note that the idea that men and women may be roughly equally kinky flies in the face of a lot of other research out there, but in this case we feel pretty confident in our divergent data. Why? Take a look at the objects on display in our Hall of Arousing Art and you will notice not everything falls into the classic stereotypical definition of "porn.” We see some of our gentleman guests are confused by the deceptively unassuming library to the right—a library not visited in many other studies. That library is filled with forms of arousing art that women consume disproportionately: Romance novels and fanfiction. Don't let the bookish presentation of these saucy materials deceive you. They don't call these bad boys bodice-rippers for nothing—they are being consumed primarily for the arousal response they create in the reader, even if their consumption may not be to bring the reader to climax.

## Erotic Material Exhibits

The following percentages of our male and female participants reportedly consume the following types of arousing materials:

|  |  |  |
| --- | --- | --- |
| **Arousing Materials Consumed** | **F** | **M** |
| Romance Novels | **47%** | **4%** |
| Young Adult Novels (Erotic) | **15%** | **4%** |
| Fanfiction | **17%** | **8%** |
| Daydreams / Personal Imagination | **68%** | **53%** |
| Short Erotic Stories | **46%** | **24%** |
| Live Action Video | **53%** | **81%** |
| Still Photographs | **23%** | **59%** |
| Heavily Edited Still Photographs | **5%** | **10%** |
| Hentai Video | **13%** | **14%** |
| Hentai Images | **7%** | **12%** |
| Computer Animation Video | **8%** | **20%** |
| Computer Animation Stills | **4%** | **11%** |
| Western Animation Video | **2%** | **8%** |
| Western Animation Images | **1%** | **10%** |
| Erotic Video Games | **4%** | **15%** |
| Virtual Reality Pornography | **3%** | **15%** |
| Traditional Printed Pornography | **19%** | **27%** |

Just marvel at these results: The number of women who consume erotic romance novels, erotic young adult literature, and erotic fanfiction when contrasted with men is shocking. To put that another way, women consume erotic romance novels at 1175% the rate men do!

Let's take a moment to disembark from the tram and explore this library. You will notice that it is both very sumptuous and exceedingly vast. Romance novels comprise the single largest share of the current fiction market, with 74.8 million people in the US reading an erotic novel in 2008 and 90% of them being women. In contrast, only about 100 million men within the US (and Canada) accessed online porn within the same year. This means the romance novel industry—the female-focused arousal industry—is likely more profitable than the entire male-centric, traditional “pornography” industry. This makes sense, as most traditional pornography has moved to an ad-supported model, whereas individuals still pay for most of the romance novels they consume.

So, what exactly gets women so aroused in these scintillating novels? Grab one or two off a shelf as we make our way back to the tram and continue our journey. Skim the back cover to get a picture of the leading romantic interest. Notice any themes? We do.

In his research for *A Billion Wicked Thoughts*, computational neuroscientist Ogi Ogas took the time to analyze 15,000 Harlequin romance novels to find the most common professions of these books’ leading male love interests. Ogas found the following professions, in order, dominated: Doctor, cowboy, boss, prince, rancher, knight, surgeon, king, bodyguard, and sheriff. These are all professions associated with status, confidence, competence, and dominance over others. You don’t see many romance novels featuring builders, programmers, marketers, and the like. This prevalence of romantic love interests with dominant professional positions is also seen in romance novels on Amazon.com, which feature 415 millionaires, 286 billionaires, and 263 sheiks as leading male love interests.

Glance over at the Japanese anime-style porn to your left. This particular section of our Hall of Arousing Art also skews more toward gender parity than you might expect given the genre’s reputation (m14% vs. f13%). However, when you consider the size and gender breakdown of subsets like the yaoi doujinshi community (a subgenre of homoerotic self-published art, primarily created by and for females), this seems less surprising. While here, let’s also marvel at the unexpectedly robust rates of erotic video game and VR pornography consumption among men: 15% of our male respondents reportedly consume VR porn and 15% also play erotic video games.

As we drive by the live action porn exhibit of our Hall of Arousing Art, you may be surprised by its relatively small size. Our survey results suggest that 47% of women and 19% of men do not consume any live action video pornography (i.e., pornographic video that includes real people and is not animated), which we think is higher than a lot of people might expect (especially when it comes to males). In our interviews with individuals who fall into this category, it became clear that many men cannot watch live action porn without becoming distracted by thoughts of the actors’ lives, the actors’ families, etc.—leading them to prefer animated pornography filled with only fictional participants.

**An Ode to Fanfiction**

We find fanfiction to be an amazing source of information on female sexuality. It presents unique insights into the deepest, most personal aspects of a person's arousal pathways because it is rarely produced with any commercial motivation and instead is often primarily created with the goal of stimulating its creator. Fanfiction is furthermore unrestrained by that which is realistic or even physically possible.

Fanfiction—content written about characters from an established media property or in an established media universe—is often highly sexualized (*50 Shades of Grey* started as a *Twilight* fanfiction). Currently, about 79% of fanfiction writers are female. Even the earliest manifestations of fanfiction, such as the Star Trek fanfiction distributed in zines in the ’70s, skewed female (think: 90% female). The strong skew toward female authors and readers, the non-commercial nature of fanfiction work, and the intense sexualization pervasive in fanfiction make this genre a superb bellwether of unusual arousal pathways that cannot be explained through socialization. Should we identify 10,000 fanfiction stories about being enveloped in a cloud of tickling feathers but fail to see this odd scenario heavily represented in male focused erotic art, we might safely infer that this tickling feather cloud scenario is triggering a predominantly female arousal pathway (this is just an example, not a real phenomenon).

Fanfiction.net is a great place to find fanfiction if you are into that kind of thing (we can’t get enough of them). Fanfictions provide uniquely powerful insights into how other people see the world.

Note: While we will talk about fanfiction as an art that skews female, you shouldn’t take this as an indication that there are no communities for written erotic works by and for males (see: [nifty.org](http://nifty.org)).

## Arousing Dioramas

We see your necks craning for something not yet revealed. We think we know what it is. “What,” you are wondering “is specifically in erotic material that arouses people?”

Great question. We created a list of everything we thought might conceivably arouse people, then asked our survey’s respondents to indicate whether or not they found each of these things to be personally arousing. We tried to be as exhaustive as we could conceivably be in our study’s list of sources of arousal, which lead us down a lot of . . . uncomfortable internet rabbit holes, but we think this is about as thorough a list as you will find—*and we looked*. That said, we must admit this list is only tied to consumption of erotic material. We will explore actual sex acts and specific turn ons later on in this raunchy tour.

To take a look at how our male and female survey respondents reacted to various arousing triggers in erotic material, we will now drive you through the diorama portion of our Hall of Arousing Art. Take a look at the subjects behind the glass, and please don’t blink, as we will have to drive rather quickly to get past all these scenes in a timely fashion.

|  |  |  |
| --- | --- | --- |
| **Sources of Arousal in Erotic Materials** | **F** | **M** |
| A man of high wealth | **48%** | **8%** |
| A woman of high wealth | **10%** | **27%** |
| A man of low wealth | **18%** | **3%** |
| A woman of low wealth | **11%** | **23%** |
| A man who is sophisticated | **35%** | **6%** |
| A woman who is sophisticated | **18%** | **36%** |
| A "trashy" man (someone whose portrayal is aggressively aimed at demonstrating a lack of appropriate demeanor) | **21%** | **6%** |
| A "trashy" woman (someone whose portrayal is aggressively aimed at demonstrating a lack of appropriate demeanor) | **13%** | **51%** |
| A married couple | **34%** | **38%** |
| A couple that is dating (i.e., They are in a relationship, but not married.) | **46%** | **40%** |
| A couple that is in love | **51%** | **33%** |
| Participants who are strangers | **44%** | **49%** |
| Solo masturbation | **48%** | **58%** |
| Mutual masturbation | **31%** | **36%** |
| A group of more than two people having sex | **45%** | **48%** |
| Two men having sex | **21%** | **7%** |
| Two women having sex | **35%** | **66%** |
| A man and a woman having sex | **78%** | **75%** |
| Vaginal intercourse | **81%** | **83%** |
| Anal intercourse | **40%** | **56%** |
| Fellatio | **49%** | **67%** |
| Cunnilingus | **49%** | **53%** |
| Sex with breasts (through pressing them together) | **33%** | **51%** |
| Sex with feet (through pressing them together) | **8%** | **16%** |
| Feet | **6%** | **9%** |
| Sounding (putting something into a urethra) | **4%** | **3%** |
| An overweight woman (BBW) | **13%** | **21%** |
| An overweight man | **2%** | **1%** |
| An underweight woman | **5%** | **14%** |
| An underweight man | **2%** | **4%** |
| Bukkake (lots of semen) | **13%** | **18%** |
| Scat (feces) | **2%** | **2%** |
| Urine | **8%** | **10%** |
| Popping (popping things) | **1%** | **0%** |
| Transformation (a person changing from one thing to another) | **16%** | **5%** |
| Vampires | **21%** | **7%** |
| Werewolves | **14%** | **2%** |
| An android | **7%** | **8%** |
| An alien | **13%** | **8%** |
| A giant (the fictional race) | **8%** | **7%** |
| A dwarf (the fictional race) | **2%** | **8%** |
| Goo people | **2%** | **4%** |
| People made of food | **0%** | **0%** |
| Furries (anthropometric animals-e.g., a girl with cat ears and a tail) | **5%** | **5%** |
| Half human half animals (Nagas, Centaurs, etc.) | **7%** | **4%** |
| Biological relative incest | **11%** | **14%** |
| Step relative incest | **20%** | **27%** |
| Rough gangbangs | **24%** | **22%** |
| A pregnant subject | **5%** | **11%** |
| Gerontophilic material (an elderly subject) | **0%** | **3%** |
| Interracial subjects | **35%** | **36%** |
| A giant penis (longer than two feet) | **7%** | **4%** |
| Giant breasts (larger than a quarter of total body weight) | **4%** | **17%** |
| Breast inflation (breasts that are getting larger) | **3%** | **3%** |
| An individual being forced to do something "evil" | **11%** | **11%** |
| Sadomasochism | **18%** | **18%** |
| The sexualization of a character from children-targeted pop culture (e.g., a cartoon character) | **8%** | **9%** |
| The sexualization of a character from adult-targeted pop culture (e.g., a character from a young adult romance novel) | **11%** | **16%** |
| BDSM | **29%** | **37%** |
| Sex toys | **53%** | **39%** |
| Forced male submission | **9%** | **14%** |
| Voluntary male submission | **16%** | **20%** |
| Male dominance (with a voluntary partner) | **46%** | **40%** |
| Male dominance (with a forced partner) | **16%** | **19%** |
| Forced female submission | **17%** | **29%** |
| Voluntary female submission | **32%** | **40%** |
| Female dominance (with a voluntary partner) | **17%** | **28%** |
| Female dominance (with a forced partner) | **8%** | **15%** |
| Male-on-female violence | **9%** | **7%** |
| Female-on-female violence | **5%** | **5%** |
| Female-on-male violence | **6%** | **6%** |
| Male-on-male violence | **3%** | **1%** |
| Absorption | **1%** | **1%** |
| Getting pregnant | **10%** | **10%** |
| Getting someone else pregnant | **4%** | **13%** |
| Giving birth | **4%** | **1%** |
| Menstruation | **5%** | **2%** |
| Switching genders | **8%** | **3%** |
| Feminizing someone else | **7%** | **4%** |
| Masculinizing someone else | **2%** | **1%** |
| Bimbofication (someone transforming into a bimbo) | **1%** | **6%** |
| A bimbo (an oversexualized female) | **10%** | **17%** |
| A stud (an oversexualized male) | **14%** | **5%** |
| A housewife | **27%** | **46%** |
| A traditional husband | **25%** | **8%** |
| A slutty person (someone whose portrayal is aggressively promiscuous) | **31%** | **50%** |
| A nerd (someone who is portrayed as physically weak and bookish) | **23%** | **39%** |
| A corporate type | **26%** | **21%** |
| An extremely muscular woman | **1%** | **15%** |
| An extremely muscular man | **16%** | **7%** |
| Blood | **3%** | **4%** |
| Cutting/piercing | **4%** | **1%** |
| Female crying | **14%** | **13%** |
| Male crying | **4%** | **1%** |
| Insects | **1%** | **1%** |
| Oviposition (eggs being put inside a female) | **3%** | **1%** |
| A woman being implanted with a baby that is not hers genetically | **2%** | **0%** |
| A man being implanted with a baby | **2%** | **0%** |
| Tentacles | **5%** | **8%** |
| Life draining | **2%** | **3%** |
| Causing physical pain | **13%** | **17%** |
| Humiliation | **15%** | **20%** |
| Mind control | **11%** | **14%** |
| A person portrayed as disposable | **8%** | **8%** |
| A person being dehumanized | **11%** | **13%** |
| A person being betrayed | **11%** | **8%** |
| A slave (or a person owned by another) | **16%** | **22%** |
| Vore (something consuming something else while it is still alive) | **2%** | **3%** |
| Snuff (someone dying) | **3%** | **4%** |
| Foot focused material | **6%** | **5%** |
| Drawn futa (a penis on a female body) | **7%** | **8%** |
| Live action futa (a penis on a female body) | **5%** | **5%** |
| Trans subjects | **10%** | **9%** |
| Uniforms | **14%** | **17%** |
| Latex or PVC | **7%** | **13%** |
| Guro (extreme images like a girl with her face peeled off) | **2%** | **3%** |
| Gore (extreme violence) | **0%** | **2%** |
| Race play (race play references intentionally racist roleplay) | **2%** | **3%** |
| Cuckolding | **11%** | **17%** |
| Infidelity of a married individual (cheating wives/husbands) | **21%** | **19%** |
| Being dirty | **10%** | **11%** |
| Voyeurism | **23%** | **35%** |
| Caregiver/Little | **7%** | **6%** |
| Father like roleplay | **8%** | **7%** |
| Mother like roleplay | **4%** | **15%** |
| Sibling like roleplay | **5%** | **17%** |
| Rope bondage | **23%** | **23%** |
| Tight full body constraints (e.g., a tight bag or mummification) | **5%** | **7%** |
| Bestiality | **6%** | **2%** |
| Human doll (a person acting like an inanimate object) | **6%** | **5%** |
| Necrophilia | **1%** | **2%** |
| Amputees | **2%** | **1%** |
| Petplay (someone pretending to be an animal that is a pet) | **6%** | **3%** |
| Pony Play (someone pretending to be an animal that is a beast of burden) | **1%** | **2%** |
| Thoughts of yourself as another gender | **6%** | **3%** |
| Thoughts of yourself | **39%** | **23%** |
| Thoughts of displaying your genitals in public | **5%** | **6%** |
| Thoughts of yourself being sexually irresistible | **27%** | **14%** |
| Thoughts of yourself being sexually desirable to a large number of strangers | **18%** | **15%** |

Having fun? Stay buckled in and keep your hands *inside* the vehicle. We’re coming up to a really tasty stretch.

### Wealth & Sophistication

As we whir past this dizzying array of arousing triggers, take note of the sexy dioramas that inspire the most rubbernecking from our passengers. Your fellow explorers appear to be uniquely enchanted by the scenes we pass that depict high-status men. Perhaps this comes as no surprise after we pointed out that most of the male leads in the romance novels are *also* high-status men, but is it not interesting that male passengers seem to be more interested in high-wealth males as well?

Our survey results suggest that a man is about as likely to fantasize about a woman of low wealth as he is to fantasize about a woman of high wealth (23% to 27%) and a woman is *WAY* more likely to fantasize about a man of high wealth (18% to 48%). That said, you can look at this data a bit differently and say that while both men and women fantasize about women of low and high wealth at around equal frequency (in women this is 11% to 10%), both men and women fantasize about men of high wealth at around 2.5X times more often than men of low wealth (in men, this is 3% to 8%). Erotic material for men and women alike seems to gravitate toward high-wealth males.

You would expect to see the same thing when we look at the rates of consumption for erotic material featuring “sophisticated” versus “trashy”[[64]](#footnote-64) participants, right? Well, hold onto our courtesy seat back handlebars, ladies and gentlemen, as you’re in for an unexpected bump: Men and women fantasize about sophisticated members of the opposite gender at about the same rate (m36% to f35%); *however,* while men certainly fantasize about sophisticated women, they fantasize about women they perceive as trashy *even more* (51%)!

We cannot help but notice some exasperated eyerolls emanating from a few of our female passengers as they observe their male partners’ interest in some of the less classy female dioramas in our Hall of Arousing Art. Our study suggests that women fantasize about trashy men less than sophisticated men, but not by a huge margin—21% vs. 35%—and they fantasize about trashy women less than sophisticated women (13% vs. 18%).

In general, women appear to prefer a sophisticated participant in their fantasies regardless of that individual’s gender, whereas men seem *unusually* turned on by participants of both extreme high and low levels of sophistication . . . but ultimately prefer trashy women.

### Popular Pairings

Our findings tied to preference for couples who are dating (whether or not the couple is in love) versus strangers was wholly uninteresting to us. Each gender prefers each at about the same rates, with women being slightly more likely than men to include a couple in love within their erotic fantasies (f51% m33%), which we assume has more to do with the ease of depicting love in the mediums females consume more often (romance novels) when contrasted with those males consume more often (live action porn).

Please keep your hands away from the windows as we roll up the protective glass panes. Excellent, thank you. We’re now getting into a splash zone full of surprises. Speaking of which, you might be startled by how much both females and males include masturbation in their erotic fantasies—solo (f48% m58%) and mutual (f31% m36%).

Given the extent to which people at least *pretend* to get their panties into a bunch over orgies and threesomes, you may also be bemused by how often both females and males in our study included groups of more than two people having sex in their fantasies (f45% m48%). Ready for another curveball? Female respondents in our study included two women having sex in their erotic fantasies more often than two *men* having sex (35% to 21%). Men, on the other hand, rarely cast two men having sex in their erotic fantasies (7%) but reported fantasizing about two women having sex at almost the same rate at which they fantasized about a man and a woman having sex (66% to 75%). In fact, our stats have women featuring a man and a woman having sex in their erotic fantasies at higher rates than men do (though not at statistically significantly higher rates: 78% to 75%).

While it is unsurprising that men and women fantasize about vaginal intercourse frequently and at about the same rates (f81% m83%), it *is* somewhat interesting that the same can be said about anal intercourse (f40% m56%). Despite the social stigma of anal sex being something all men want and all women loathe and sometimes begrudgingly give out as a “gift” or concession, our data shows women fantasize about anal sex only 29% less than men do.

In for another surprise? While men include fellatio in their erotic fantasies more often than women do (m67% f49%), the numbers were still far closer than we expected based on common social tropes. This trend is not isolated to women: Men actually fantasize about cunnilingus at even *higher* rates than women (well . . . slightly higher, m53% to f49%).

Curious to know where men and women *diverge* on the sexual fantasy front? Men are disproportionately interested in material with breasts and feet: In our data, we found a pretty large gender difference in erotic fantasies of sex with breasts (f33% to m51%) and sex with feet (f8% to m16%). Oddly, this suggests both men and women fantasize about foot sex more than they fantasize about feet (f6% vs. m9%), though perhaps a power exchange dynamic contributes to that difference. We are not, however, concerned about *overreporting* foot-related arousals, as our study shows foot kinks at a slightly lower rate than other studies. This is a good sign for our data, as one of our biggest concerns was that it would overrepresent unusual kinks given that all the participants had to opt into a survey about sex. Much to our delight, the results we got consistently report unusual arousal patterns at around the same rate of other studies, suggesting our fear was not manifested.

Gird your loins, ladies and gentlemen, as we are arriving at the sounding diorama. Sounding entails putting something, usually a metal rod, into a urethra. Both men and women fantasize about sounding at far higher rates than we anticipated, f4% vs. m3%. You may not think those numbers sound high, but to put them in context 0.7% of Americans are Buddhist, which thereby implies that there are 500% more Americans who get turned on by sounding than there are Buddhist Americans. For every one American Buddhist you have met, you have probably met five people secretly into sounding.

### Plump Proclivities

Those of you inclined to rotundities and sitting in our ample, double-wide seats might be wondering how weight played out in our findings.

Let’s start with a shocker: Men include overweight women in their erotic fantasies at a rate of 21% contrasted with *only 2% of women* who include overweight men in their fantasies.

In for another plump surprise? Men also fantasize about *overweight* women at much higher rates than they fantasize about *underweight* women (21% to 14%), as do women (13% to 5%).

Simply put, men prefer overweight women to underweight women; however, women *also* prefer curvy women to underweight ladies (just less than men do)—and almost *nobody* desires overweight men in their fantasies.

### Random Kinks

Time to pull up your splash guards. Both our male and female survey respondents reported fantasizing about Bukkake (a person being covered in more male ejaculate than any one male could reasonably produce) at higher rates than we anticipated (f13% to m18%). To put that in context for you, 12.1% of Americans are non-Hispanic blacks, and multi-racial blacks make up 14% of the US population—the percent of the US population that finds Bukkake arousing is higher than the percent of the population that is black. If you talk to a random American, the probability that they watch and are aroused by bukkake is higher than the probability that they are black.

Almost none of our study participants found popping to be arousing (that is, popping things like balloons or pimples—f1% m0%) or scat (feces—f2% m2%), but despite Number Two falling out of vogue, our study participants expressed an unexpected amount of enthusiasm for urine (f8% m10%). We find this fascinating. What makes urine more than 400% more likely to cause arousal in someone than feces? We genuinely have no good theories on this one.

What our passengers might find shocking is our findings may represent a tamer population—at least vis-à-vis other studies. Researchers who have focused specifically on more rare kinks have found that men experience higher rates of arousal tied to scat and urine than women. When crafting theories on human sexual development, we give these studies—which were run by true professionals still practicing in their fields—more credence than our own survey. Again, this survey is just a broad charcoal rubbing of all human sexuality, not a microscopic analysis of it.

### Non-Human Participants

We can see some of you in the back are quite excited about the spooky nature of some of these dioramas as we enter a mythical forest-themed stretch of our Hall of Arousing Art. Yes, yes, we’ve entered vampire, werewolf, and magical beast territory. Please stay in your seats and behave; your driver has a whip and knows how to use it.

In line with previous research on the subject of arousal and supernatural beings/acts, our data shows women develop an arousal tied to transformation and things that transform—as well as things that are violent or otherwise a threat to their safety—at much higher rates than men. Specifically: Transformation (f16% m5%), vampires (f21% m7%), werewolves (f14% m2%), and aliens (f13% m8%).

Gentlemen, please wipe those holier-than-thou smirks off your faces. If we look at any mythical humanoid *not* known for transforming and/or violently ripping apart and consuming humans, the rates or inclusion in erotic fantasies are equal across genders—or lean male. Specifically consider: androids (f7% m8%), dwarves (the fictional race—f2% m8%), giants (the fictional race—f8% m7%), half-human-half-animal beings (nagas, centaurs, etc.—f7% m4%), goo people (f2% m4%), people made out of food (f0% m0%), and furries (anthropometric animals—e.g., a girl with cat ears and a tail—f5% m5%).

Now, Simone over here thinks Malcolm is reaching too far in his categorization of aliens as violent and giants and androids as nonviolent—surely Malcolm has seen countless recent movie scenes with violent giants and androids, right? Malcolm, however, maintains his stance, insisting that the data clearly shows vampires, werewolves, and aliens have something in common that is not shared by androids, dwarfs, giants, goo people, half-humans-half-animal beings, furries, or people made out of food. He posits that this former group is seen as more inherently violent because that would make our data align with other research—but concedes that it could also be that its members are associated more with transformation (which women also find disproportionately arousing). These groupings may also just present a mere coincidence created by a few popular romance novels.

Perhaps some of you on the tram have better ideas. By all means, enlighten us (but seriously, send your theories and ideas to Hello@Pragmatist.Guide; we are all ears).

The supernatural race we find surprisingly rare among our dioramas of mythological and part-human beings is furries (anthropomorphic animals). Among our respondents at least, furries were less popular than other mythical humanoids. This is bizarre, considering the massive grasp furries have on popular culture, with movies such as Zootopia even going so far as to specifically advertise to the furry community. In our data, it is less common to fantasize about furries than it is to fantasize about aliens, androids, dwarves, and giants.

On the other hand, let’s not reach too far here and keep these numbers in context: 5.5% of Americans are Asian Americans, so the number of people who consumer erotic material tied to furries in America is about as large as the entire Asian American population. If you meet a random American, our survey suggests they are just as likely to consume furry porn as they are to be an Asian American. *(Just a reminder: when we compare a community like Asian Americans to a kink, we are choosing the community based on its percentage of the population for visualization purposes, NOT because the kink appeared disproportionately within said community.)*

Before we depart from this mystical forest, we beseech you to marvel at the fact that that transformation, which features in 16% of the erotic materials consumed by our female survey respondents, and 5% of that consumed by our male respondents, is surprisingly common in both females and males. This is just the sort of delicious phenomenon that gets us interested enough in human sexuality—as biologically repulsive as it tragically is—to write this book.

Being aroused by transformation has no obvious social benefit specifically to women, fails to break any social taboos (or at least not as much as other less common and less gendered kinks), and does not seem obviously tied to reproduction (maybe you could argue pregnancy is seen as transformation and that would also explain why it is gendered . . . but we think that's a bit of a reach). So why on earth is transformation arousing people and why is it arousing mostly women?

We explore this idiosyncrasy in the “Emotional States and Concepts / Dominance and Submission” subchapter on page 96. For now, let us forge onward into the strange and ephemeral territory of human cognition and explore more categories of people with whom we are not supposed to have sex.

### Forbidden Sexual Partners

Both men and women taking our survey reportedly fantasize about biological relative incest (f11% m14%) and step relative incest (f20% m27%) at about the same rate, with both being slightly more popular sexual themes among males. This is higher than we anticipated, but not totally shocking. Dangerously large sexual organs are also popular, but not jarringly so. Our female survey respondents reported a higher preference for giant penises than their male counterparts did (f7% m4%), while our male survey takers reported a much higher preference for giant breasts (f4% to m17%). (We break out these stats with more nuance in the “Songbirds and Boobies” chapter on page 35 and dig into some theory on why this arousal pattern appears at the rates it does.)

We see some of you eyeing our pop culture-inspired dioramas with discomfort. We understand there have been many complaints in the media about mouth-breathing male neckbeards online sexualizing children’s cartoon characters, but our data indicates this stereotype may be misplaced. Both men and women in our study reported sexualizing characters from child-targeted pop culture at around the same rates (f8% to m9%), with males only being more likely to fantasize about fictional characters when they are targeted at adults (and even then the gender difference is slight: 11% versus 16%).

To put it simply, the pathways that cause us to become aroused by characters from fiction to whom we feel an emotional attachment seem to activate equally in both men and women. This lends evidence to the idea that the neurological pathway that causes some people to eroticize children’s cartoons is likely a malfunctioning version of the same neurological pathway that leads people to become more aroused by individuals to whom they feel emotionally close, as that pathway also lacks a gendered preference (more on this in the subchapter:“Emotional Connections to People” on page 114, in which we dig into why the things that turn people on turn them on).

### BDSM Scenes

Heads up, folks—we are *finally* entering BDSM territory. If you would like to augment your fetching leather shoulder restraints, feel free to reach up and pull down the leather masks that have just popped down from your overhead compartment.

BDSM covers bondage, discipline, dominance, submission, sadism, and masochism. Think: Classic, kinky sex that features power exchanges, a myriad of rituals, a broad diversity of uniforms, and oodles of toys. *Note: This section only looks at BDSM as consumed in erotic materials; we’ll revisit BDSM from the perspective of acts people regularly practice further along in our tour.*

Both hefty proportions of men and women consume BDSM-themed erotic material (f29% m37%). Essentially one in three Americans consumes BDSM-themed erotic material. To put it another way, it is a bit of a stretch to call someone who is into BDSM “kinky” if by “kinky” you mean: Far out of the norm. Heck, consumption of BDSM-related erotic material is about as common as interracial erotic material (f35% m36%). So BDSM is about as “kinky” as interracial porn if kinkiness is based on how out-of-the-norm a thing is.

Two themes you will see in the data that we will flag upfront is both men and women are much more likely to be aroused by dominance and submission in erotic material when it is voluntary and men are slightly more likely than women to be aroused by dominance and/or submission.

In general, our data suggests that males get turned on more by male submission in their erotic fantasies than females do (forced male submission f9% and m14% versus voluntary male submission f16% and m20%). That said, while those who do get turned on by male submission in their erotic material skew male, both males and females are vastly more likely to consume and be aroused by erotic material in which the male is dominant (forced male dominance f16% and m19% vs. voluntary male dominance f46% and m40%).

Both females and males taking our survey reported female submission to be far more arousing than male submission, be it forced (f17% m19%) or voluntary (f32% m40%). Male survey respondents reported fantasizing about dominant females more than their female peers—both voluntary (f17% m28%) and forced (f8% m15%).

Alas, we are not presently touring through virgin terrain—virgin terrain . . . get it? Everything we find here is consistent with other studies on the subject of dominance and submission. In general, both men and women prefer to fantasize about female submission and male dominance, however, the significant minority of men who fantasize about submissive males and dominant females dwarfs the number of females who find the idea of submissive males and dominant females arousing.

No need for your eyes to linger too long on that flock of kneeling submissives in the diorama at left—take a look over here at this display of sadomasochism, which 18% of both our male and female respondents find arousing and consume in erotic material. Interest in sadomasochism does not seem to be gendered, even when you consider psychological sadomasochism, which involves, for instance, an individual being forced to do something “evil” against their will (if you were wondering, psychological sadomasochism is found arousing by our survey population at a rate of 11% among both men and women).

Our data even shows this gender equality covers various “directions” of violence: Male-on-female violence (f9% m7%), female-on-female violence (f5% m5%), female-on-male violence (f6% m6%), and male-on-male violence (m3% f1%). In this case, our data does not correlate with the findings of other studies on the subject. Other research we have reviewed suggests that women get much more turned on by male-on-female violence, whereas our data suggests women are only just slightly more turned on by it. At first, we assumed this was just a data dredging issue that we were going to see whenever we attempted to parse out gender-based preference for fairly rare kinks, but in this case, the consistency of the non-gendered pattern of arousal from violence is intriguing in that it could indicate something about the underlying neurological mechanisms that lead violence to be arousing to some individuals. It is fascinating that both females and males are far more likely to be aroused by violence when a female is in some way involved (neither males nor females are turned on much by male-on-male violence) and that both females and males find male-on-female violence arousing at higher rates than any other category of violence directionality.

This is the type of stuff we *love* to dig into. Why would someone get turned on by violence? In most cases, violence will not aid reproduction or keep offspring alive and the most arousing violence pattern, male on female, is the most demonized in our society (think the societal cliché of spousal abuse) while the *least* arousing violent configuration, male on male, is glorified (think boxing). We just adore digging into these types of questions and have a lot of fun with them in our chapter on “The Impact of Gender Differences on Human Sexuality” on page , but for now, back to the tour.

### Baby Making

Speaking of fairly rare kinks and equal interest from men and women alike: Both men and women fantasize about someone getting pregnant at the same rate: 10%. You may be a little surprised at this low percentage given that that, well, REPRODUCTION IS THE ENTIRE BIOLOGICAL PURPOSE OF SEX. Oddly, more people are turned on by seeing a woman cry (f14% m13%) than impregnation. That's friggin’ insane!

Were Simone to guess why impregnation fantasies are so relatively unpopular when contrasted against the evolutionary motivation behind them, she would posit that this lackluster interest reflects a systematic campaign waged from childhood in Western culture. A broad range of educational programs seems hell-bent on convincing people that babies equate the end of freedom, fun, and financial stability. Obviously, such campaigns were created with good intentions, to scare people out of teen pregnancy, but their wider effect is the societal consensus that fun stops when kids start. These campaigns may be inadvertently contributing to a disastrous slew of consequences, including the current demographic collapse—but that is a subject for a different book.

Malcolm disagrees with Simone on this one. He points to evidence (covered earlier in this book) suggesting that socialization of arousal patterns is fairly rare in humans. Malcolm instead posits that we may be thinking about arousal incorrectly in this instance. Arousal is just one brain reward mechanism associated with all sorts of stimuli evolution wanted to reward. We only associate arousal more closely with reproduction than happiness or fulfillment because arousal is the emotional reward mechanism most closely tied to the actual act of sex. This creates the illusion in our mental heuristics that arousal is the “baby making” reward mechanism.

Happiness, sadness, and all other emotional outputs share responsibility in guiding our reactions to stimuli in a manner that boosts our odds of having as many surviving offspring as possible. Arousal is but one of many tools in a diverse toolkit evolution leverages to achieve this task. The outputs of fulfilment and love are the two more frequently used reward mechanisms to encourage impregnation. It would make sense for evolution to more heavily leverage love and fulfillment to motivate baby making (over arousal), as they encourage longer-term behavior patterns whereas arousal appears to be better at guiding short-term behavior patterns (and specifically behavior patterns that encourage an individual to do something one would otherwise find off-putting—like putting slime-generating Dongle A into slime-generating Port B).

### From Housewives to Crying

Now that your guides are done bickering, enjoy the soothing breeze while we speed up to quickly pass by a few of these remaining dioramas. Our data on the character types included in the erotic fantasies is sadly not that interesting; however, a few points do stand out: Both the men and women we polled reported consuming fantasies featuring slutty[[65]](#footnote-65) participants (“slutty” being defined in our study as someone whose portrayal is aggressively promiscuous) at higher rates than any other trope (f31% m50%). So, to our scantily clad guest suggestively rubbing her breasts in the center row: You just keep doing you. Also interesting: Neither men nor women reported many fantasies involving muscular individuals of their own gender (f1% m7%), and about half of males reported fantasizing about a housewife.

Over here we have a fun finding that strongly aligns with the research already out there: Both men and women who took our study reported consuming a non-trivial amount of erotic material that features females crying (f14% m13%), though neither males nor females reported consuming much material featuring crying men (f4% m1%). Also, while cutting and piercing is a rare kink, females find it arousing at four times the rate of men, f4% m1%. This aligns with other research, which generally shows women to be more aroused by bodily harm than men.

At this point, it should be clear to our passengers that common narratives framing chauvinistic, self-centered men as the sole drivers in markets for erotic material featuring females suffering (or otherwise being degraded) are off base. In the subchapter “Inconvenient Things that Arouse Females”on page 159, we break this stuff down in more detail, because, boy howdy, it sure is fun to see societal narratives challenged by data!

Speaking of common misconceptions, you are probably beginning to notice that narratives suggesting that mostly women drive demand for powerful female subjects in erotic material are inaccurate. There is definitely a demand for powerful women in erotic material—however it is coming predominantly from men. Finally, the narrative that most people are sexually “vanilla” and only a small handful of perverts consume all the weird porn and “out there” romance novels is complete bunk. If you are not even *sometimes* aroused by weird and disturbing things, you are in the vast minority.

### Grab Bag of Kinks

Alright folks, enough pontificating. If you thought those mythical dioramas were a thrill, you’ll *adore* what’s coming up next: We’re entering some pretty trippy country. Here we are going to explore some wackier sources of arousal, but before we do, let's pull some statistical yardsticks to help you more easily contextualize how many people we are talking about when we say something like: “3% of Americans.”

Religious populations in the US:

* Jews: 2.1%
* Muslims: 0.8%
* Members of the Church of Jesus Christ of Latter-Day Saints (Mormons): 1.8%
* Catholics: 23%
* No Religion: 18%
* Protestants: 50%

Ethnicities in the US:

* Asian American: 4.8%
* Native Americans: 1%
* Black: 12.6%
* White: 72.4%
* Hispanic 16.3%

States:

* Pennsylvania: 3.9%
* NYC: 5.9%
* Alaska: 0.2%
* New Jersey: 2.75%
* Connecticut: 1%
* Massachusetts: 2.9%

Now that we have our mental yardsticks at the ready, let's get moving again!

We can see some of you are looking a little alarmed at the scenes we are passing by at present, so we’ll drive through the menagerie of weirdness quickly:

* Oops! Sorry for that unexpected couple of bumps, folks. Did we just run someone over? At any rate, people dying (aka snuff) reportedly arouses 4% of our gentlemen respondents and 3% of our lady respondents. That’s right: The population of Pennsylvania, the United States’ sixth most populous state, is dwarfed by the number of Americans who feel sexually aroused when they see someone die. Humans are weird—but we suppose that's why we can’t look away until we understand their wacky arousal patterns.
* Note the diorama depicting a man being implanted with a baby to your right, (exemplifying a concept known as MPreg) that reportedly arouses 2% of our female survey respondents—though none of our male respondents. This kink is unique in how heavily gendered it is, appearing almost exclusively in females. MPreg is extremely narratively driven, found predominantly in erotic fanfiction and short erotic stories and absent almost everywhere else.
* See that terrifying parasitic alien pumping eggs into that woman? That’s called oviposition and 3% of our female respondents found it arousing (versus only 1% of males). More specifically, oviposition is the act of pumping eggs inside someone and this kink is common enough that you can buy an “ovipositor” and specialized fake eggs for sex play. How common is that? More American women are into oviposition than live in the state of New Jersey.
* Speaking of creepy crawlers, women and men who took our study reported finding insects sexually arousing at fairly equal (albeit low) rates (f1% m1%). This is in contrast with other research, which suggests that erotic interest in creepy crawlers leans male.
* You may also enjoy a gander at some tentacles up ahead, which our male and female participants found arousing at rates of 5% and 8%, respectively.
* If you keep your eyes on the changing state of those folks in the display to the left, you can also witness some life draining taking place—see how they’re aging? Life draining reportedly arouses 2% and 3% of our survey’s male and female respondents, respectively.
* You’ll notice a mix of magical beings and humanoids/humans eating people to your right (porn depicting such scenes is commonly referred to as vore). Such scenarios reportedly titillate 2% and 3% of our female and male respondents, respectively. Yup, there are more Americans turned on by watching a person be eaten then there are Muslim and Mormon Americans combined. That blows our minds—and we hope is just a little unexpected.
* Speaking of death, 1% and 2% of our female and male respondents reported finding necrophilia arousing. You will notice this is about half the percentage of the population that finds watching someone die arousing. We suppose it’s just more fun to watch people die than it is to play with them once they’re dead—statistically speaking, of course. Oh, and this possible necrophiliac segment of the US population is still larger than the population of Connecticut.
* Now, that’s not to say that somewhat immobile and compliant humans aren’t arousing. Of our female and male respondents, 6% and 5% respectively find human dolls arousing. This suggests that there are Americans who are turned on by porn involving a person acting like a doll than there are residents of New York City.
* Do we have any animal lovers on board? Oh—no, not *that* kind; we meant people who actually get turned on by the idea of “making love” to animals. Bestiality reportedly arouses 2% and 6% of our male and female study populations, respectively. Rawr! Oh, but seriously, don’t screw animals, you reprobates. (We get into the stats on this stuff in a more serious context in the “Zoophiles” subchapter on page 94—the percent of people who see no problem in forcing animals to have sex with them is depressingly high.)
* We also just passed by a diorama depicting some petplay (roleplay in which one individual acts like another's pet). Petplay is reportedly arousing to 6% of our gal survey-takers and 3% of the guys. ‘Pony play,’ a subcategory of petplay focused on acting like a pony or a horse, also interested 1% and 2% of female and male respondents respectively.
* As we drive out of the fringe zone, feel free to toss some of these complementary Mardi Gras beads at those folks exposing their genitals in public—they *love* it, as do 5% of our female study participants and 6% of their male counterparts.

#### Should I Be Scared?

Given some of your horrified expressions, we can tell that we are going to have to take a quick aside here, so you don’t walk away at this point thinking that a sizable chunk of the population is comprised of psycho killers. Despite what urban myths and film plots would have you believe, a piece by Geoffrey O’Brien persuasively argues that commercially distributed snuff is a myth that has been created intentionally by a few films that *pretended* to be real snuff films as a promotional tactic—specifically the 1976 film *Snuff* and the 1980s film *Cannibal Holocaust.*

We are inclined to agree with Mr. O’Brien. There is not and never has been a snuff equivalent to the commercial pedophile industry. In fact, most film clips of real human deaths that are intentionally watched by people are consumed recreationally for their shock value and not to feed some particular form of sexual arousal. This can be seen from interviews of some of the quarter million r/WatchPeopleDie subscribers (a subcommunity of Reddit.com dedicated to videos of real people actually dying). Instead of watching actual humans die, most people who glean arousal from the concept of death appear to receive arousal from three other sources: The first and the most common is from narrative-style pornography (vampire romance novels and the like), the second and also somewhat common is cartoon-drawn pornography, and the third—the most shocking and thankfully rarest—is “crush” pornography.

We like to try to stay open minded, but crush pornography is easily the most messed up thing we have encountered while writing this book. Crush porn involves sexualized women and men stepping on small living animals (like a puppy or a kitten) and slowly crushing them. These videos are clearly created specifically to elicit an arousal response, given the fact that they often use high heels and other sexualized paraphernalia. That said, we need to come back and highlight that most of the people deriving arousal from the concept of death are doing so from cartoons and fictional stories, which is no more morally questionable than deriving any other source of pleasure from watching fictionalized violence and death (e.g., laughing when Tom tortures Jerry or getting excited when an action hero “heroically” guns down a village with automatic firearms in both hands).

In fact, this is a point to dwell on as a reader: More extreme-sounding arousal pathways like snuff, gore, guro, vore, necrophilia, etc., are almost never engaged in through the actual act, but instead through things like novellas, cartoons, and innocuous roleplay. In the case of necrophilia, a common practice involves one consenting partner “playing dead,” artificially lowering their body temperature through ice or something, then lying motionless during intercourse. In the case of vore, in which arousal is gleaned from the idea of eating someone, being eaten, or seeing a person eaten, a person may climb inside an inflatable orca pool toy filled with goo and masturbate (there is a store in Japan called VoreCafe where you can pay for this unique experience).

Therefore, when you hear about someone being aroused by things like gore, vore, necrophilia, snuff, and other disturbing concepts, imagine embarrassing roleplay (no more extreme than the stuff you probably tried in your teens), cartoons (no more gory than a blockbuster movie), and cringy fanfiction (a la *50 Shades of Gray*—yes, as we will keep reminding readers, *50 Shades of Gray*, one of the bestselling books in history, was originally written as an erotic Twilight fanfiction.)

It is not at all unusual to feel a positive emotional sensation when thinking about someone suffering. When we read articles about people who create videos in which they step on puppies for sexual satisfaction and we see their smug faces, we imagine how good it would feel to choke the life from them. While it may not be a sexual impulse to desire such action, it is a positive emotional impulse being generated from the thought of inflicting severe suffering on another person. While we may feel this impulse, we don’t go out and act on it. Why? Because we’re not crazy.

We imagine almost everyone reading this book at some point in their life has enjoyed a pleasant fantasy involving the suffering of another person. But like us, we are also willing to bet you haven't acted on it . . . because you aren’t crazy. You don’t just go out and act on every imagined scenario that makes you feel a positive emotion. The same is true for almost everyone who is aroused by these types of things. You don’t need to worry about a person just because the idea of hurting someone creates a positive emotional impulse in their mind. This is something almost all humans deal with successfully—just not in the form of arousal. What you *do* need to worry about are those who can’t say, “I am not going to inflict suffering on someone just because it will make me feel satisfied” (the crazy people).

This kind of comparison may also help you understand why individuals who are turned on by the concept of death don’t watch real snuff videos depicting people actually dying and instead focus on cartoons and fanfiction. As much as we feel an impulse to hurt puppy crushers, we would feel horrible actually doing so in the real world. We would feel horrible even watching a video of a puppy-stomping human being severely injured. The concept of people suffering for their actions is what is generating the positive emotions in us—actually watching it happen to a real person would be horrifying.

So, while we can’t empathize with what it feels like to be aroused by severe harm coming to a person, we can understand what it feels like to get a positive emotion from such a concept. Through that, we can understand how a concept can create a strong positive emotional impulse in someone's brain without that person feeling a drive to recreate that concept in real life. Hopefully trying a similar thought experiment yourself will help you understand how an individual could be simultaneously aroused by *the concept* of someone dying and repulsed by the idea of watching a real person die.

### Interpersonal Dynamics

You will notice a fascinating contrast between rates of the less common, “classic kink” stuff above with the rate of arousal patterns tied to social interactions between people. People appear to be far more likely to have an arousal reaction in response to social dynamics than something like tentacles.

Non-trivial proportions of our study respondents reported finding more socially driven dynamics arousing, such as:

* Humiliation (f15% m20%)
* Inflicting physical pain (f13% m17%)
* Mind control (f11% m14%)
* The idea of someone who is ‘disposable’ (f8% m8%)
* Dehumanization (f11% m13%)
* Betrayal (f11% m8%)
* Slavery (f16% m22%).

These numbers are insanely high when put in the context of the portion of the population they represent. As we’ve discussed in the main body of this book, it seems as though the part of our brain that yields arousal tied to sex is intertwined with parts of our brains that process certain types of social interactions or the brain is using concepts as proxies for dominance rituals which in turn were motivated by a mating display system. This, in turn, causes some to feel arousal in response to certain social interactions.

We also see surprisingly high rates of consumption of erotic material focused around what people are wearing, specifically uniforms (f14% m17%) and latex or PVC (f7% m13%).

### Japanese Imports

Ah—observe: Another exhibit imported from Japan. Futa, short for futanari, is a type of pornography with Japanese origins featuring individuals who have female figures and breasts—but also a penis. Our data shows drawn futa arouses 7% and 8% of our male and female study populations respectively (live action titillating each gender at a smaller rate of 5% each). *Note: Here we need to be super clear that, while sometimes a transitioning individual will act in porn marketed in the futanari genre (as they may have both a penis and breasts), those who consume futanari porn do not have a high overlap with those who consume trans porn.*

Futa shares much in common with tentacle porn and furry porn. All three genres boast vast treasure troves of online content, are heavily influenced by Japanese porn culture, have a lot of crossover in their consumers, appear at around the ~6% level, and are fairly gender neutral in who consumes them—despite societal stereotypes. To put them in context: The percent of Americans that enjoy tentacle porn, futa, and/or furry porn and regularly consume them each (individually) is roughly equal in size to the population of the smallest 15 US states combined (approximately 6%).

Let’s spice up this tour with a brief history lesson: Why does tentacle porn come from Japan? Erotic art involving tentacles can be seen historically in Japan in works like the 1814 famous print, *The Fishman's Wife*, which depicts a scene from the legend of Tamatori in which the wife of a fisherman is having a consensual sexual interaction with octopus minions of the Dragon King. Though now seen as classically Japanese, such erotic art was not wholly unique to Japanese culture. It became disproportionately popular in Japan due to censorship of genitals starting as far back as the Meiji period. Depiction of tentacles—instead of genitals—presented a convenient loophole and enabled erotic artists to circumvent censorship rules. Finally, manga (Japanese comics) was already common in Japan when contrasted with other narrative industries due to a complex set of cultural circumstances, meaning drawn porn was already more likely to exist. Given these factors, kinks that lean on physically impossible things that can only be depicted in a drawn medium will often appear in Japan before other countries.

We hope our riders are enjoying themselves as we pull up to this diorama featuring a busty lady with a skinned head and maggots coming out of her eyes delicately holding an exquisitely folded origami swan—made, of course, from her own scalp. She is our liaison from the Guro porn community, which is reportedly enjoyed by 2% of our female study population and 3% of the gentlemen.

Guro has its roots in a 1930s artistic movement in Japan that has blossomed into what can only be described as the most “hardcore” form of wacky, extreme pornography. Imagine the “nightmare fuel” of porn, things that would turn on people if breaking social norms and taboos was actually as arousing as it is portrayed to be in pop culture (breaking social taboos does not actually arouse a large portion of the population, as we discussed in the subchapter: “Social Taboos and Rule Breaking” on page ).

Seriously though, unless you suspect it might be your thing, don’t look up Guro porn—and especially don’t do it while considering that there are about as many Americans who consume and enjoy this type of pornography as there are residents of New York City (2.6% of the population).

This fantastical and bizarre erotic expression appears (at least in our data) to be more arousing than more traditional gore, which was of interest to none of our female survey respondents and only 2% of our male population. Gore is similar to Guro, but it takes a somewhat toned down, less fantastical approach to extreme violence. Also, unlike Guro, which is very much a Japanese cultural import, Gore developed independently as a genre and is less attributable to any single point of regional origin. To be more specific on the difference between these categories:

* Gore = Arousal triggered by extreme violence and suffering
* Guro = Arousal triggered by your own shocked reaction to a difficult to emotionally process image.

### Arousing Practices

For those of you feeling a little gross after all the dismembered and rotting corpses in the latest two dioramas we passed, remember that feeling dirty is arousing to a fairly large part of the population (f10% m11%). If you’re ready for us to turn things down about a hundred notches, consider that rope bondage is a shockingly common wellspring of arousal, with 23% of our male and female survey populations alike reporting consumption of erotic material focused on it. Look to your left; now look to your right. If there were passengers on both sides of you, there is a 41% chance that one of them is into rope bondage.

Ma’am—*ma’am*—why are you exiting the vehicle? Oh my . . . well ladies and gentlemen, she appears to have taken a b-line for the very muscular and tall janitor attending to the rope bondage diorama. Look at ‘em go. Given the fact that her husband here seems to be . . . oddly OK with the situation, we figure now is a great time to discuss our study’s findings on cuckolding—and those who feel aroused by a partner having sex with someone else.

Cuckolding is a super common kink contrasted with the genetic pressures against it. A robust 11% and 17% of our female and male respondents respectively find it arousing. What is weirder is that arousal in response to cuckolding skews male instead of female, despite males having the most to lose from the act from a genetic perspective (cuckolding likely skews male because it is the product of an inverse pathway, and inverse pathways skew male—see the “Emotional Connections to People” subchapter starting on page 114 for a more detailed discussion of cuckolding). While cuckolding is a predominantly male fantasy, females actually slightly outrank males in regard to fantasies focused around the infidelity of a married individual (f21% m19%).

Before you start wondering how many of your peers actually engage in this practice, bear in mind that the number of individuals who *actually take part* in cuckolding (f4% and m1%) is far lower than the number reportedly aroused by it (f11% m17%). Cuckolding is one of those topics that is super interesting to us, as it belies a surface level understanding of arousal patterns (that arousal patterns are meant to maximize the number of kids you have) and thus is a concept we frequently revisit.

Seeing how many of you (and not just this lady’s husband) appear to enjoy this little scene, it might not surprise you in the least that voyeurism presented broad-based appeal among study respondents, arousing 23% and 35% of our male and female respondents respectively.

While we’re on the subject of voyeurism, note that while more of our male study participants have participated in watching someone else have sex in person (f11% to m16%), women have participated in being watched at about the same rate as men (f18% to m17%). We suppose this makes sense, as we presume the most common dynamic here is a heterosexual couple being watched by a male.

### Trans Erotic Art

Now for a stop on our tour that is too culturally sensitive to quip about: Our data indicate porn in which an individual is explicitly trans enjoys fairly high consumption rates (f10% m9%). To put that in context, studies indicate that trans individuals may make up between 0.6% and 6.8% of the US population.

Like almost all expressions of an LGBT identity, the population that sexualizes trans people far outnumbers the population that identifies with that expression. You see the same thing with both gay male porn and lesbian porn: The population that likes watching gays in porn is also much larger than the gay population—but more on that shortly.

### Roleplay & Fantasy Scenarios

As we roll past the roleplay-themed dioramas, a quick shout out to all the passengers roleplaying as parents on board—*you’re* the real stars, here. People seem to like roleplay fantasies starring opposite-gender parents. Men prefer mother roleplay (f4% m15%), women prefer father roleplay (f8% m7%), and a decent proportion of the population we polled (f7% m6%) actually carries out child-parent roleplay fantasies regularly during sex.[[66]](#footnote-66)

You might be thinking those roleplay numbers for father roleplay look pretty gender neutral, but we can modulate that by pointing out that across the board, men like family themed roleplay much more than their female counterparts. For example, 17% of men taking our survey reported being aroused by sibling roleplay, whereas the theme reportedly interests a mere 5% of our female respondents. When that is considered, females are unusually turned on by father-daughter roleplay.

Let's enter the realm of rule 63. Rule 63 is one of the great rules of online culture that claims everyone has an opposite-gendered counterpart in the world of eroticism. In the real world, 6% and 3% of our female and male study population fantasize about themselves as another gender for the purposes of arousal. (We should clarify that an individual doing this is not necessarily trans or gender fluid, though doing this does not exclude an individual from being trans or gender fluid.)

Why, ladies and gentlemen, do you think females fantasize about opposite-gender versions of themselves more than men? From what we gathered in our data, it appears to be that females in general fantasize about things that require imagination to conjure more than males do. For example, a respectable 39% of our female study respondents reported fantasizing about themselves, whereas only 23% of our male respondents reported doing the same. Honestly, it surprises us this isn’t more common: 61% and 77% of our female and male study respondents respectively do not choose to star in their own sexual fantasies.

As we are on the incessantly charming subject of ourselves, you may also be interested to learn that 27% and 14% of our female and male subjects respectively reported indulging in thoughts of being sexually irresistible and f18% and m15% reported dabbling in thoughts of being sexually desirable to a large number of strangers. It is likely these two fantasies that lead some to post sexually explicit photos of themselves online—a practice that can appear confusing to those who lack this arousal impulse.

## The Wonderland of Sex: An Exploration of Sexuality in Practice

Beep beep, perverts: Listen up. We are about to depart from our *theoretically* focused Hall of Erotic Material and enter into our *practically* focused, live-action Wonderland of Sex. During this mostly outdoors portion of our tour, you will be occasionally invited to exit the vehicle and walk around; however, be sure to only do so at our instruction, for this is a world of real people and real actions.

In addition to asking our study participants to tell us about their turn ons and the arousing material they consume, we asked them which sex acts they had actually, *personally* tried more than once. The idea was that someone would probably need to like something a least a *little* to have done it multiple times, and by getting data on such activities, we can better understand human sexuality beyond the bounds of erotic material consumption.

## BDSM Land

We have a lot of ground to cover and are starting out in a splendidly colorful and popular place: BDSM Land.

|  |  |  |
| --- | --- | --- |
|  | **F** | **M** |
| BDSM as the sub | **27%** | **11%** |
| BDSM as the dom | **11%** | **19%** |
| Caregiver and Little as Little includes Daddy Dom / Little Girl | **7%** | **1%** |
| Caregiver and Little as Caregiver includes Daddy Dom / Little Girl | **3%** | **5%** |
| BDSM as “service sub” | **10%** | **2%** |
| BDSM as dom to “service sub” | **2%** | **4%** |
| BDSM as a “brat” | **9%** | **1%** |
| BDSM as a dom to a “brat” | **3%** | **2%** |
| BDSM as a “primal” sub | **3%** | **0%** |
| BDSM as a “primal” dom | **2%** | **1%** |
| Petplay/ponyplay I have acted like an animal | **3%** | **0%** |
| Petplay/ponyplay I have acted like the owner/trainer/handler of my partner | **2%** | **2%** |
| Rope bondage as rope bottom | **10%** | **3%** |
| Rope bondage as rigger top | **7%** | **15%** |
| Impact play as the bottom being hit by a partner | **15%** | **6%** |
| Impact play as the top physically hitting a partner | **4%** | **11%** |
| Sadomasochism as the masochist | **7%** | **7%** |
| Sadomasochism as the sadist | **2%** | **6%** |
| BDSM involving no overtly sexual interaction | **3%** | **7%** |
| Knifeplay | **5%** | **2%** |
| Cutting or piercing | **3%** | **2%** |
| Bloodplay | **3%** | **0%** |
| Edgeplay | **7%** | **4%** |
| Sexual roleplay pretending to be something you are not during sex | **25%** | **33%** |
| Roleplaying as another gender during sex | **5%** | **2%** |
| Cross-dressing not as part of sex | **1%** | **3%** |
| Cross-dressing as part of sex | **3%** | **2%** |
| Watching someone else have sex in person | **11%** | **16%** |
| Being watched having sex in person | **18%** | **17%** |
| Cuckolding as the cuckold cuckqueen | **4%** | **1%** |
| Cuckolding as the hotwife hothusband | **3%** | **0%** |
| Cuckolding as the bull cuckcake | **0%** | **1%** |
| Biting | **29%** | **22%** |
| Being bitten | **25%** | **29%** |
| Scratching | **26%** | **11%** |
| Being scratched | **19%** | **24%** |
| Pegging | **7%** | **4%** |
| Anal receiving | **42%** | **5%** |
| Anal giving | **10%** | **46%** |

The first thing you might notice in BDSM Land is (1) its sizable population and (2) some clear gendered preferences exist within it. Our stats suggest that women prefer to participate as the sub at more than double the rate of men (f27% m11%), and males prefer to be the dom at almost double the rate of females (f11% m19%). Keep in mind that as of this book’s creation, 5.6% of Americans are Asian Americans, so a random American is about twice as likely to participate in BDSM as they are to be an Asian American.

**BDSM Land’s Vibrant and Diverse Neighborhoods**

Observe the colorful and varied neighborhoods and enclaves as we drive through this populous land—there are many popular dynamics people incorporate into BDSM play. Please take a bingo sheet and pass it on: As we make a broad circuit through the heart of BDSM Land, see if you can spot any the following dynamics at play:

* **Caregiver and Little:** This form of BDSM involves one party acting childlike and the other behaving like an adult authority figure.
* **Daddy Dom / Little Girl:** By far the most common type of caregiver and little BDSM, this dynamic entails one participant assuming the role of the “daddy” while the other becomes his “little girl.”
* **Service Submission:** This type of BDSM involves one participant gaining sexual gratification by being useful to another—either by providing resources or doing tasks for them (such as household chores).
* **Brats:** A brat in BDSM contexts involves a sub who extracts sexual gratification from repeatedly challenging their dom from a submissive position, leading them to act like a “brat.”
* **Primal:** This manifestation of BDSM involves acting “animalistic” and being focused on “the hunt,” with the dom often being called the “predator” and the sub the “prey.”
* **Pet Play:** Petplay is a form of BDSM in which the sub roleplays as the dom’s pet. People most commonly roleplay as a cat, dog, or horse.
* **Rope Play:** This form of BDSM revolves around the use of ropes (applied by a “rigger”) to constrain a sub.

If we look at the stats associated with subcategories of BDSM, we observe a trend in which almost all submissive participants lean female. While dominant participants lean male, there is still a fairly equal gender split among doms. This gets interesting considering that men are much more likely to be BDSM doms when practicing generic BDSM, whereas men and women are equally likely to play the dom when practicing “subgenres” of BDSM.

Why might this be happening? No spoilers!

The increase we observe in female sub participation in more obscure/specific BDSM subsets suggests that many of the couples in these “deep dive” BDSM communities are comprised of a female dom and female sub. This could make sense given that a significant factor differentiating these communities from mainstream BDSM is their additional narrative elements and the apparent female tendency to consume narrative-heavy erotic material (remember that giant library of romance novels and fanfiction we strolled through at the beginning of our tour?).

### Hurtsville

Once BDSM comes to involve physical pain, these dynamics break down. In such instances, we see higher rates of men preferring to be the sub, creating gender equity in participation. With impact play, this is less pronounced, with f15% m16% reportedly practicing being hit by their partner during sex / erotic play and f4% m6% practicing hitting a partner during sexy times. The difference is more pronounced with sadomasochism in general, with 7% of both male and female respondents dabbling in masochism, whereas three times as many of our male respondents (6%) have experimented more than twice with sadism (versus 2% of female respondents).

These results challenge one of our own theories in which—at least until running this study—we had been very confident: That arousal through masochism leverages the neurological arousal pathways involved in submission. If this were the case, we would see a similar gender breakdown between the expression of masochism and submission. In other words, if submission and masochism are just two ways of igniting the same general neural pathway, it would be unlikely that one of the two interests would be disproportionately popular among women while the other wasn’t—unless there were some underlying societal drive pushing men to feel more comfortable with arousal coming from being hurt than arousal coming from being submissive. Perhaps stigma against being a submissive male *is* what accounts for this discrepancy and while this differentiation in arousal patterns does exist, males are embarrassed to indulge in it. Alas, ladies and gentlemen, we lack the funds at this time to properly test that theory.

By this point, you will have noticed that subs in BDSM Land outnumber doms at a rate of something like three to one. Intrepid guests, we are pleased to report that humans vastly prefer being submissive to being dominant. For those who embarked this tour in an effort to pick up some tips on securing sex more easily, you may benefit from leveraging the insatiable (and presently poorly met) market demand caused by the apparent dearth of doms: Getting sex if you become a high-quality dom is easier than securing it as a sub or neutral. Doms, on average, must have many more sexual partners than subs for these stats to be possible.

### Danger Drive

As we turn down Danger Drive, you will notice an increasingly high density of female denizens. We’ve found that more violent forms of BDSM are preferred by women. In fact, the only BDSM subcategory we found to be preferred more by men involves BDSM without any sexual interaction at all (m7% f3%). Violent variations on BDSM preferred by women include knife play (f5% m2%—this is a form of BDSM that uses knives), cutting and piercing, bloodplay (f3% m0%—this is BDSM focused around drawing blood from a partner), and edgeplay (f7% m5%—this BDSM is considered risky by the mainstream BDSM community—typically because it is genuinely dangerous).

Why do we see this? We suspect for two reasons:

1. A BDSM scene involving extreme violence is less likely to be focused on ending in an orgasm and thus would be less alluring to men given how they relate to sex.
2. These findings line up with the existing research on sexuality, which indicates that females are far more likely to be sexually aroused by violence—and specifically violence against themselves or other women—when contrasted with males.

Our findings, however, deviate from the mainstream (women being more into violence) in a few areas. Specifically, they suggest that:

* Men are more into sadomasochism (f2% m6%)
* Women only prefer consuming erotic material depicting male-on-female violence by a narrow margin of 9% to 7%
* Males preferred extreme violence, such as gore (f0% m2%), vore (f2% m3%), and guro (f2% m3%)

Why might interest in violence appear to be gender neutral in some scenarios, but much more arousing to women in others? We theorize there is a fairly simple explanation: That men and women are masochists at equal rates, but the impulse often burns “hotter” in women. The cases in which the gender breakdown is equal or leans male are “dilettante-ish” cases—like porn consumption or a participant expressing an interest in generic masochism. Sexually violent indulgences that demonstrate a more intense interest, such as activities like knife play or edgeplay (activities that may not necessarily be seen as safe, sane, and consensual), lean female. This theory would also explain other research showing the impulse to be heavily gendered (toward females), as said research is focused on things like: “Out of the total number of people who watched X video, how many were female?” and “How many Google searches for Y phrase were conducted by females?” Even if the arousal pathway manifests in equal rates among men and women, women would be more likely to go out of their way to search for violent erotic material, watch multiple videos, or conduct lots of searches on the topic if they felt the impulse more strongly.

It may also be that our survey population or study is just totally off. We do not know.

### Character Court

As we pull onto Character Court, feel free to unbuckle your seatbelts, stand up, and reach for one of the many masks and costumes available in our overhead storage bins. It’s time to talk roleplay.

Roleplay (acting as someone/something you are not) turned out to be quite a common practice among our survey population. There are nearly as many US citizens who engage in roleplay as there are US citizens with pet cats (29%), as a robust f23% and m33% of our respondents have engaged in roleplay in a sexual context more than once.

Women prefer to roleplay as another gender at more than twice the rate as men (f5% m2%)—though our data also indicates that men prefer cross-dressing *not as part of sex* at three times the rate of females (m3% f1%). All that said, when sex is involved, the female preference remains (f3% m2%). This interesting flip of the data is actually in line with the existing research, which has consistently found gender display impulses that are not intrinsically tied to sex or arousal pathways to more commonly manifest among males.

### Tooth & Nail Avenue

Please keep your hands and feet inside the vehicle as we make our way to the outer gates of BDSM Land; the denizens on this particular street bite. In terms of more generic sexual practices, biting is both very common and seems to be practiced by women at slightly higher rates than men, with biters trending female (f29% m22%) and bitten parties trending slightly male (f25% m29%). The same can be said of scratching, with females inflicting the majority of the damage. Specifically, 26% of our female respondents reported having scratched their partners during sex more than once (in contrast to 11% of male respondents) and 24% of our male population reported being scratched more than once during sex (in contrast to 19% of female respondents).

### Mount Ass

You will be amused to see that we are exiting BDSM Land through Mount Ass. As we pass through its cavernous Anal Sphincter Tunnel, we find it appropriate to ask: Do we have any fans of anal on board? If so, you are in good company. A sizable 42% of women have repeatedly tried receiving anal and 46% of men have given anal more than once. Those numbers are way higher than we anticipated. We are fascinated by how well the results align with women and men who consume erotic materials in which anal is practiced (f40% m56%). As for the inverse: 10% of

women have given anal and 5% of men have received it (with 7% of female respondents and 4% of male respondents engaging in this activity through pegging, which involves a woman using a strap on to give anal).

Now let’s take a quick gander at the frequency of the supposed cornerstone emotions of romantic relationships: Love, jealousy, sex, and lust.

## Crazy Country: The Land of Love, Jealousy, Sex, & Lust

Welcome, ladies and gentlemen, to Crazy Country, a hazy wasteland over which colorful clouds of love, lust, and jealousy gently waft. Should you not want to be overcome by these emotions as we drive through these heady thunderheads, we recommend you grab one of the various gas masks available and ensure a proper seal. Move quickly, folks—this pink cloud up ahead represents love.

|  |  |  |
| --- | --- | --- |
| Are you currently in love with someone? | | |
|  | **F** | **M** |
| **Yes** | **61%** | **49%** |
| **No** | **31%** | **43%** |
| **Unsure** | **7%** | **7%** |

### Love: More Common Than You Would Think

What shocked us about these responses is just how common it is for an individual to report being in love. Our survey suggests that basically about half of men—and well over half of women—are in love at any given time. If this data is generalizable, love is not an unusual emotion; it is basically the norm of human existence.

### Jealousy: Not Such a Big Deal

We decided to dig in on some other relationship-related emotions, so in addition to looking at arousal, we took a quick peek at jealousy patterns as well. Jealousy is not as common as vindictive country songs about jilted lovers might lead you to believe.

|  |  |  |  |
| --- | --- | --- | --- |
| Do you feel intense jealousy in relation to your sexual partners? | | | |
|  | **F** | **M** |
| **1 (Very Little Jealousy)** | **26%** | **39%** |
| **2 (Little Jealousy)** | **26%** | **28%** |
| **3 (Some Jealousy)** | **23%** | **19%** |
| **4 (Quite Jealous)** | **16%** | **11%** |
| **5 (Intense Jealousy)** | **9%** | **3%** |

While it appears that women are slightly more jealous than men, both men and women taking our survey reported relatively low levels of jealousy. This paints a rosy picture, no? Love abounds, and jealousy . . . well, it’s not that much of an issue.

At least *you*, dear guests, would likely see this picture as rosy. It should be clear by now that we see love as one of the most toxic of human emotions given the effects it has on one’s ability to make evidence-based decisions that benefit one's long term goals and core values (we had quite a crisis when trying to decide whether or not to get married, fearing our decision might be being influenced by our “love” for each other). We frankly find this stretch of the tour deeply unsettling.

### Sex & Lust: Overrated?

Sex and lust lie somewhere in the middle between love and jealousy—not terribly uncommon, but not as free flowing as some may believe.

|  |  |  |
| --- | --- | --- |
| How frequently do you have sex? | | |
|  | **F** | **M** |
| **Multiple times most days** | **1%** | **2%** |
| **Around one time a day** | **7%** | **4%** |
| **Around three times a week** | **16%** | **30%** |
| **Around once a week** | **27%** | **15%** |
| **Around twice a month** | **11%** | **7%** |
| **A few times a year** | **16%** | **14%** |
| **Almost never** | **22%** | **27%** |

A hearty 38% of our female respondents and 39% of the gentlemen either almost never have sex or have sex just a few times a year. We do not find these percentages to be particularly surprising, but an utterly absent sex life doesn’t seem so depressing when one considers that about two out of every five people are in the same boat.

What about masturbation? Don’t worry, ladies and gentlemen, we asked.

|  |  |  |
| --- | --- | --- |
| How frequently do you masturbate? | | |
|  | **F** | **M** |
| **Multiple times most days** | **1%** | **2%** |
| **Around one time a day** | **10%** | **24%** |
| **Around three times a week** | **16%** | **44%** |
| **Around once a week** | **22%** | **20%** |
| **Around twice a month** | **28%** | **5%** |
| **A few times a year** | **9%** | **2%** |
| **Almost never** | **14%** | **3%** |

The vast majority of men taking our survey—70%—reported masturbating more than three times a week, while the ladies’ reported masturbation frequency is all over the place, with 77% reportedly masturbating more than twice a month.

While this data is far from groundbreaking, it does dispel the myth—common among some sexually inexperienced individuals—that once someone is in love, they stop masturbating. Our data showed individuals who feel they are in love report masturbating at slightly lower rates, but they certainly don’t stop. This slowing makes sense as love decreases testosterone production in males, which lowers overall sex drive.

|  |  |  |
| --- | --- | --- |
| Rank your libido from 1 to 5, with 1 indicating no interest in sex at all. | | |
|  | **F** | **M** |
| **1 (Very Low Libido)** | **1%** | **3%** |
| **2 (Low Libido)** | **22%** | **11%** |
| **3 (Average Libido)** | **33%** | **26%** |
| **4 (High Libido)** | **30%** | **30%** |
| **5 (Very High Libido)** | **14%** | **30%** |

What about libido? Among our respondents, men on average self-assess themselves as having higher libidos than women (perhaps because for women, sex drive is more responsive and driven by contextual cues), but the difference in self-assessment is not as extreme as social tropes would lead you to believe.

|  |  |  |
| --- | --- | --- |
| How do you feel about your sexuality? | | |
|  | **F** | **M** |
| **1 (Very conflicted)** | **0%** | **2%** |
| **2 (Uncertain)** | **5%** | **1%** |
| **3 (Still figuring some things out)** | **3%** | **2%** |
| **4 (Certain)** | **32%** | **21%** |
| **5 (Very certain)** | **59%** | **74%** |

While our female respondents appear to feel slightly more conflicted in their sexuality than their male counterparts, both groups on the whole are fairly certain about their sexuality, with only 5% of men and 8% of women feeling as though there are still things for them to work out.

You will be relieved to know that we are now leaving this hazy tundra of data not explicitly tied to arousal and are returning to the Magical Forest of Turn Ons and Turn Offs.

## The Magical Forest of Turn Ons and Turn Offs

Welcome, ladies and gentlemen, to the wondrous territory of arousal spectra. Here we dig into things that cause an arousal response in some while inspiring a disgust/aversion response in others.

The following chart indicates the reaction a person most identifies with the following concepts, sex acts, smells, and images.

* -2 Indicates they found a concept very aversive/disgusting
* -1 Indicates they found a concept aversive/disgusting
* 0 Indicates they had no response to a concept
* 1 Indicates they found a concept arousing
* 2 Indicates they found a concept very arousing

*Note: These questions had clarifying text and full sentences associated with them that were removed in this presentation to make the chart easier to read.*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Female** | | | | | **Male** | | | | |
|  | *-2* | *-1* | 0 | **1** | **2** | *-2* | *-1* | 0 | **1** | **2%** |
| Partner acting masculine | *7%* | *1%* | 21% | **15%** | **56%** | *60%* | *22%* | 9% | **5%** | **3%** |
| Partner acting feminine | *60%* | *13%* | 16% | **3%** | **7%** | *1%* | *3%* | 3% | **31%** | **62%** |
| Partner being muscular | *7%* | *3%* | 25% | **31%** | **34%** | *38%* | *36%* | 12% | **13%** | **2%** |
| The thought of roleplaying being raped | *56%* | *11%* | 11% | **8%** | **14%** | *67%* | *12%* | 8% | **5%** | **7%** |
| The thought of actually being raped | *77%* | *8%* | 7% | **3%** | **5%** | *84%* | *4%* | 5% | **5%** | **1%** |
| The thought of roleplaying raping someone else | *81%* | *5%* | 4% | **5%** | **3%** | *59%* | *14%* | 11% | **8%** | **8%** |
| The thought of actually raping someone else | *93%* | *1%* | 2% | **1%** | **2%** | *83%* | *4%* | 5% | **4%** | **3%** |
| The thought of being owned by someone | *53%* | *11%* | 9% | **19%** | **9%** | *72%* | *12%* | 6% | **7%** | **3%** |
| The thought of owning someone | *70%* | *12%* | 5% | **7%** | **5%** | *59%* | *11%* | 15% | **6%** | **9%** |
| Watching my partner have sex with someone else | *71%* | *10%* | 4% | **8%** | **7%** | *67%* | *12%* | 8% | **9%** | **3%** |
| The idea of losing agency (e.g., being hypnotized, mind controlled, or otherwise mentally dominated) | *64%* | *5%* | 14% | **10%** | **7%** | *66%* | *16%* | 9% | **5%** | **3%** |
| Pretending that my partner is related to me | *79%* | *9%* | 4% | **8%** | **0%** | *63%* | *17%* | 7% | **6%** | **6%** |
| The thought of sex with an actual relative | *92%* | *2%* | 4% | **1%** | **0%** | *81%* | *9%* | 2% | **1%** | **6%** |
| The smells associated with sex | *20%* | *26%* | 23% | **20%** | **11%** | *14%* | *21%* | 32% | **19%** | **15%** |
| The naked male form | *5%* | *5%* | 13% | **32%** | **45%** | *59%* | *24%* | 7% | **4%** | **6%** |
| The naked female form | *15%* | *21%* | 23% | **21%** | **21%** | *1%* | *0%* | 2% | **7%** | **90%** |
| The sight of a penis | *5%* | *7%* | 12% | **27%** | **48%** | *66%* | *16%* | 2% | **8%** | **7%** |
| The sight of a vagina | *31%* | *21%* | 16% | **14%** | **19%** | *1%* | *3%* | 6% | **20%** | **70%** |
| The sight of breasts | *16%* | *18%* | 27% | **17%** | **22%** | *1%* | *1%* | 3% | **9%** | **86%** |
| The pregnant female form | *56%* | *23%* | 17% | **4%** | **0%** | *46%* | *27%* | 18% | **7%** | **2%** |
| The idea of pleasing someone else | *6%* | *4%* | 17% | **32%** | **41%** | *2%* | *8%* | 13% | **34%** | **42%** |
| The idea of being useful to someone I admire | *9%* | *11%* | 27% | **33%** | **20%** | *5%* | *19%* | 32% | **29%** | **15%** |
| Acting sexually dominant | *15%* | *21%* | 23% | **31%** | **11%** | *4%* | *16%* | 20% | **34%** | **26%** |
| Acting sexually submissive | *9%* | *13%* | 14% | **26%** | **38%** | *25%* | *24%* | 13% | **26%** | **12%** |
| Seeing partner act submissive in a sexual context | *26%* | *21%* | 26% | **15%** | **12%** | *5%* | *3%* | 22% | **42%** | **28%** |
| Seeing partner act dominant in a sexual context | *5%* | *10%* | 11% | **22%** | **53%** | *12%* | *23%* | 16% | **30%** | **19%** |
| Being bound or otherwise physically restrained | *30%* | *12%* | 13% | **25%** | **20%** | *44%* | *22%* | 11% | **15%** | **8%** |
| Physically striking partner during sex | *66%* | *13%* | 12% | **5%** | **3%** | *59%* | *17%* | 10% | **5%** | **8%** |
| Being physically struck by partner during sex | *54%* | *9%* | 11% | **14%** | **12%** | *58%* | *15%* | 10% | **13%** | **4%** |
| Being choked during sex | *53%* | *10%* | 11% | **10%** | **16%** | *71%* | *7%* | 9% | **8%** | **4%** |
| Choking someone during sex | *74%* | *7%* | 10% | **7%** | **3%** | *56%* | *17%* | 6% | **13%** | **8%** |
| Being talked down to during sex | *58%* | *12%* | 9% | **11%** | **10%** | *58%* | *18%* | 8% | **8%** | **7%** |
| Talking down to partner during sex | *69%* | *18%* | 5% | **7%** | **1%** | *49%* | *18%* | 15% | **12%** | **6%** |

We see the surprise on your faces that things that create an arousal response in one portion of the population caused a disgust/aversion response in another portion of the population **for every single stimulus tested**. *Excellent* reaction—this yields a perfect transition into one of our favorite takeaways from this data.

These responses provided us with evidence in favor of a theory of ours discussed in greater detail in the chapter: “Things that Cause Arousal” on page 59. Our theory is that the mental system triggering disgust/aversion is almost certainly running on the same basic “software” as the mental system triggering sexual arousal.

This theory suggests that complete explorations of human sexuality should feature sources of disgust in addition to sources of arousal—that understanding a person's sexuality is as much about determining what disgusts them as it is about exploring what arouses them.

At any rate, let’s plunge deeper into this mysterious forest and explore the data. Don’t expect any immediate, sudden drops or jump scares as we make our way in: The first few test results are pretty predictable: Men prefer feminine women and women prefer masculine men . . . “Well, THANKS, Captain Obvious.” Right?

But look again—could the plot be thickening behind that thick clump of gnarled trees? The results might *seem* obvious first glance but are striking in their severity. Let's look at a simple breakdown:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Females | Partner Acting Feminine | | | | |
| Partner acting Masculine | -2 | -1 | 0 | 1 | 2 |
| -2 | 2% |  |  |  | 4% |
| -1 |  |  | 1% |  |  |
| 0 | 8% | 3% | 10% |  |  |
| 1 | 7% | 3% | 2% | 2% | 1% |
| 2 | 44% | 6% | 3% | 1% | 1% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Males | Partner Acting Feminine | | | | |
| Partner acting Masculine | -2 | -1 | 0 | 1 | 2 |
| -2 |  |  | 1% | 13% | 47% |
| -1 |  | 1% |  | 15% | 7% |
| 0 |  | 1% | 2% | 3% | 1% |
| 1 | 1% |  |  | 1% | 3% |
| 2 |  | 1% |  |  | 2% |

It is remarkable just how much male and female sexuality mirror each other in their severe disgust reactions to gender displays associated with their own gender and strong arousal reactions to gender displays by the other gender. A hefty 47% of our male respondents rated femininity in a partner as arousing as possible and masculinity as aversive as possible; this is mirrored in responses from our female respondents, with 44% feeling the same way, but with gender expressions flipped.

It is also neat to see that a rare 1% of our male respondents (2% of our female respondents) report both femininity and masculinity to be turn offs. As for those who find both arousing: 6% and 5% of our male and female respondents respectively like it either way—again a near-perfect mirror between genders (this mirroring features frequently in our survey’s results, which has important implications in understanding the neurological pathways at play).

### Rape

Again, we must step out of our “tour theming” to discuss a topic that is very sensitive, but which nevertheless represents an important aspect of human sexuality.

We asked about the following two concepts in a row, the second immediately after the first:

1. The thought of roleplaying being raped
2. The thought of actually being raped

These topics were presented one after another to make it clear to anyone taking the survey that yes, they had already answered the question about fantasy rape, and that is not what this second question was about. Furthermore, this juxtaposition enabled respondents to think very clearly about the *relative* allure of each scenario, enabling us to see if people clearly found one scenario more arousing (or aversive) than the other.

A whopping 8% of female respondents and 6% of male respondents reported the thought of *actually* being raped a turn on (roughly equivalent to the percentage of Americans that own a bird or reptile as a pet, 7%) while an equally breathtaking 22% and 12% of our female and male respondents respectively reported the thought of roleplaying being raped to be a turn on (around the same percentage of people in the US owns both a cat and a dog 17%).

One of the reasons we were so diligent to put these two questions right next to each other is we thought peer-reviewed research on this subject might be over-reporting the number of people who find the thought of *actually* being raped arousing, and we were excited to disprove those findings. Clearly, we failed on this front; our data is right in line with other studies on this unsetting phenomenon showing arousal from the thought of actually being raped is fairly common. To highlight just how prevalent this arousal pattern is, consider that the population of women in the US that gets turned on by *the idea of actually being raped* is roughly the size of the female population in the second most populous state, Texas.

Before we charge onward, allow us to emphasize that finding something arousing does not mean you want it to happen to you. A man can look at his friend’s wife and find her visually arousing while still thoroughly not wanting to have sex with her on account of ethics, potential consequences, likely psychological damage, and other complications. A commuter daydreaming on a subway train can look at a fellow train rider and think: “It would be arousing to rape them,” but also internalize that the subject of their fantasy is a real human with real feelings. Said daydreamer doesn’t need to act on literally everything they find arousing.

In addition, it is possible to find the idea of being raped arousing, but to also be fully aware that the arousing experience isn’t even close to the price paid in psychological damage, risk of STDs, PTSD, etc. Keep in mind 3% and 4% of our female and male respondents respectively reported the act of watching a human die to be arousing—and yet we don’t see streets strewn with bodies.

We asked a similar set of questions about raping someone else. Again, these questions were asked in a manner that minimized potential confusion. In our survey, 3% of female respondents and 7% of male respondents reported to find the thought of raping someone arousing, and 8% of the women taking our survey and 16% of their male counterparts claimed to find the thought of roleplaying raping someone arousing. To put this in perspective: There are more men who find the thought of actually raping someone arousing than there are male residents in the nation’s third most populous state, Florida.

While the proportion of male respondents aroused by raping someone else and being raped themselves is approximately equal, the proportion of female respondents aroused by the idea of being raped is well over double the number who are aroused by the idea of raping someone else.

### Slave Meadow

Now that we are on to *slightly* less touchy ground, we will return to our tour theming. Welcome, ladies and gentlemen, to Slave Meadow—a surprisingly popular destination, believe it or not.

Don’t feel *too* bad for the men and women in chains to your right—they’re getting quite the sexual thrill here. An eyebrow-raising 21% of women and 10% of men find the thought of *being owned by another human* arousing, while only 12% of women and 15% of men find the thought of owning someone else arousing. For context, there are more Americans who are aroused by the idea of being owned by someone else than there are Americans who don’t have a car (15%).

One thing we found slightly odd is that the number of people who get turned on by losing their agency is slightly lower than the number who get turned on by being owned by someone else (f17% m8%). We assume this means there are a significant number of people who get turned on by the idea of *involuntary* slavery—slavery that they attempt to resist. Alternatively, it could just mean that “high concept” ideas like a loss of agency are less arousing than easily to visualize ones like slavery.

### Cuck Creek

Let’s dig a little deeper into the actual arousal patterns associated with cuckolding behavior while we pull away from the hazardous territory of Slavery Meadow and cross over Cuck Creek, where you will observe a lineup of men on this bridge intently watching their wives bang other men by the water below.

While we found that 15% of women and 12% of men reported the prospect of watching their partner have sex with someone else to be arousing, the vast majority of both male respondents—67%—and female respondents—71%—ranked this experience as leading to the most extreme aversion reaction possible. It therefore appears to be that while cuckolding is a fairly common sexual predilection, the vast majority of people still find the idea to be highly aversive.

### Incest Point

Perched over Cuck Creek, you may observe several pairs of kissing cousins and siblings necking in their cars parked on Incest Point. Our survey data suggests that men find incest more arousing than women. The 8% of women who find incest roleplay arousing is dwarfed by the 12% of men who found the concept titillating, and we see a similar mismatch with 1% of women versus 7% of men reporting *actual* incest to be arousing. To put this in context: 5.9% of American males live in New York State. That’s right: Our survey data implies that there are more men in the US aroused by the idea of sleeping with one of their current family members than there are men in the state of New York.

### Olfactory Valley

OK, OK—we’re *really* leaving controversial territory now—you have all been *so brave—*but please put on your protective face masks. Not all of you are going to like the odors wafting in from Olfactory Valley ahead. We’re about to briefly explore the smells associated with sex. Zesty!

It seems very few people are on the same page when it comes to this subject, which is probably why we’re seeing such a rainbow of facial expressions as we drive through this new and fragrant zone of our study’s findings. Every category of arousal and aversion, from extreme to mild, had an almost exactly equal number of adherents when describing how what impulse they associate with the smells of sex and there was not a strong gendered distribution to the answer, though women were slightly more likely to find the smells aversive.

A significant 21% of our survey’s female respondents and 34% of male respondents reported the smells associated with sex to be arousing. Were you able to graph a line from arousal to disgust in males and females, it would be almost a straight line with each gender, which makes it totally unique among arousal pathways.

Were we to venture a guess as to why there is such an even and diverse distribution of reactions to sexy smells, we would suppose that this neural pathway is entirely divorced from all other arousal pathways and has been affected by modern evolutionary pressures in weird ways—either because it is very ancient or just now developing. We do not think socialization or association could explain this broad and even distribution, as arousal in response to sex-associated smells was not tied to a high level of sexual experience; however, it *is* heavily tied to being a dog person or a cat person, which is beyond weird. More on that later.

Our reactions to smells are just some of many surprising and all-over-the-place sexual reactions people have to various stimuli, leaving us all the more flummoxed at the cut and dry manner in which so many people view sexuality. Consider, for example, that our male survey respondents found that pregnancy makes a woman more attractive at a higher rate than our female respondents did (Men: 9%; Women: 4%).

### Mammary Mountain and Phallus Peak

Please remove your masks and get a whiff of something far more groundbreaking (in our minds, at least) than our findings regarding the smells of sex, as we’re about ascend Mammary Mountain and pass by Phallus Peak, enjoying along the way a splendid view into our survey respondents’ reactions to the male and female forms and genitalia. Our survey results do a great job of illustrating how inadequate the “gay” versus “straight” spectrum is at exemplifying a person's sexuality.

But first—let's get the conventional interpretation of this out of the way. Typically, “gay” is a method of self-identification for individuals who are more aroused by stimuli they associate with individuals who identify as the same gender as themselves. In 2017, 4.5% of Americans identified as gay. This 4.5% was reported in a Gallup poll and we understand it is a much lower number than most people think, as the same poll showed Americans think that the gay identifying population is 10% to 23%.*[[67]](#footnote-67)*

In our survey, 3% of the participants identified as gay and 8.75% identified as bisexual.[[68]](#footnote-68) Our number is a bit low because we removed trans and non-binary participants from the data set, which identified disproportionately as gay or bisexual. With our survey’s trans and non-binary participants added back in, we are right around the national stats for identifying as gay.

Take a look at the naked people hula hooping to your right. Which of these charming nudists do you find arousing? And what *about* them is arousing? You might find that there is not a perfect correlation between your supposed position on a gay-straight spectrum, but rather a mixture of things that both turn you on and turn you off about various body parts and figures—this is what our survey respondents demonstrated, at least.

Here are just a few examples of this phenomenon:

* 10% of males find the naked male form aversive, but find penises to be arousing
* Of men who find the naked female form arousing, a whopping 30% find the sight of a vagina actively aversive
* 32% of women who find the female form arousing simultaneously find vaginas actively aversive
* Only 1% of males who find the female form arousing simultaneously find breasts to be a turn off
* That said, 15% of *women* who find the female form arousing find breasts to be a turn off
* In general, we found that female attraction to the male form correlates strongly to attraction to penises
* While only 16.5% of women who took our survey identified as gay or as the variant of bisexual attracted to at least men and women, a larger 30% of women we surveyed found both vaginas and the naked female form arousing (though, oddly, only 18% of women found both breasts and vaginas arousing)
* Though only 6% of men who took our survey identified as gay or the variant of bisexual attracted to at least men and women, 11.4% of our male respondents reported finding both the male form and penises to be arousing
* Male arousal in response to breasts seems to correlate with arousal in response to the female form: 87% of our male respondents reported both to be arousing
* There is a similar correlation between female arousal in response: If a female survey respondent reported finding the male form to be arousing, it was very likely she would also report finding penises to be arousing, with 71% reporting both to be arousing
* It seems to be the case that, in general, if a man finds the male form arousing, he will not find penises to be aversive: Not a single man we surveyed reported to find the male form arousing but the sight of penises aversive
* Similarly, not a single woman in our survey group reported vaginas to be arousing and the naked female form to be aversive
* 7% of our female study population found the naked female form arousing while reporting to be repulsed by the sight of a vagina
* 6% of our female respondents found breasts arousing, but the vagina aversive
* 2% of female study-takers found the sight of a vagina arousing, but breasts aversive
* 36% of the women we polled found both the naked female form and the vagina aversive

In other words, the concept of “gayness” when talked about as a spectrum of gender preference doesn’t map well onto the data, as it requires a “male package” (penises, the naked male form, etc.) of attraction and a “female package” (breasts, vagina, the female form, etc.) of attraction. Instead the way arousal patterns group to male and female bits in the real population is quite different.

To dig a bit deeper:

*Keep in mind, only 3% of our participants identified as gay and only 8.75% identified as being the variant of bisexual attracted to at least men and women.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Female** | Breasts | | | | |
| Naked F Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 9% | 3.4% | 2.3% |  |  |
| -1 | 4.5% | 10.1% | 5.6% | 1.1% |  |
| 0 | 1.1% | 2.3% | 13.5% | 2.3% | 2.3% |
| 1 | 1.1% | 2.3% | 5.6% | 6.7% | 4.5% |
| 2 |  |  | 1.1% | 4.5% | 16.9% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Female** | Vagina | | | | |
| Naked F Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 12.4% | 2.3% |  |  |  |
| -1 | 12.4% | 9% |  |  |  |
| 0 | 5.6% | 4.5% | 6.7% | 2.3% | 2.3% |
| 1 | 1.1% | 4.5% | 3.4% | 9% | 2.3% |
| 2 |  | 1.1% | 2.3% | 3.4% | 15.7% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Female** | Penis | | | | |
| Naked M Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 4.5% | 1.1% |  |  |  |
| -1 | 1.1% | 2.3% | 1.1% | 1.1% |  |
| 0 |  | 3.4% | 3.4% | 2.3% | 2.3% |
| 1 |  |  | 4.5% | 21.4% | 7.9% |
| 2 |  |  | 2.3% | 3.4% | 38.2% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male** | Penis | | | | |
| Naked M Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 54.6% | 1.1% |  | 3.4% |  |
| -1 | 12.5% | 9.1% |  | 1.1% |  |
| 0 |  | 3.4% | 2.3% | 1.1% |  |
| 1 |  |  |  | 3.4% | 1.1% |
| 2 |  |  |  |  | 6.8% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male** | Breasts | | | | |
| Naked F Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 1.1% |  |  |  |  |
| -1 |  |  |  |  |  |
| 0 |  |  | 1.1% | 1.1% |  |
| 1 |  |  | 1.1% | 3.4% | 3.4% |
| 2 |  | 1.1% | 1.1% | 5.7% | 80.7% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Male** | Vagina | | | | |
| Naked F Form | -2 | -1 | 0 | 1 | 2 |
| -2 | 1.1% |  |  |  |  |
| -1 |  |  |  |  |  |
| 0 |  |  | 1.1% | 1.1% |  |
| 1 |  | 2.3% | 2.3% | 3.4% |  |
| 2 |  | 1.1% | 2.3% | 14.8% | 70.5% |

What appears to be happening here is that humans have two, apparently independent arousal systems: One that determines whether or not *secondary* sex characteristics (breasts, curves, muscular arms, etc.) are arousing and the other that determines which *primary* sex characteristics (penis or vagina) are arousing. A person’s reaction to one of these arousal systems is only loosely associated with the other system.

We live in a world in which 4.5% of male Americans identify as gay—and yet the same amount (4.5%) find the naked male form aversive, but penises arousing. This trend is not unique to males, as 6.7% of women find the female form arousing, but vagina aversive. In such a world, the concept of the gay-straight spectrum as a tool for understanding arousal patterns can be little more than an artifact of history. Using the gay-straight spectrum to describe an individual's sexuality is like using the gray scale to describe a color—but by this point in the book, you are probably sick of us ranting about this.

We also see you staring with great attention at the hula hoopers’ breasts and penises. Would you like to know what sizes of these undulating appendages the average guy and gal find most arousing? Of *course,* you would.

|  |  |  |
| --- | --- | --- |
| What breast size do you find most arousing on a woman? | | |
|  | **F** | **M** |
| **Small** | **5%** | **6%** |
| **Below Average** | **2%** | **8%** |
| **Average** | **36%** | **42%** |
| **Above Average** | **29%** | **29%** |
| **Well above average** | **3%** | **10%** |
| **Huge** | **1%** | **2%** |
| **Unnaturally Large** | **0%** | **1%** |
| **I do not find breasts arousing at all** | **23%** | **1%** |

Calm down, ladies, we know you all want to know if *your exact* cup size is in high demand, but we needed to be realistic with the options we presented in this survey. We figured men wouldn’t know cup sizes and we didn’t find this question interesting enough to find pictures of breasts for the survey.

The key takeaway with regard to arousing breast sizes, however, is this: The average man (56% of male respondents in our survey), believe it or not, prefers breasts that are of average size or below. Despite popular media stereotypes, the percent of men who like breasts that are well above average or larger is quite small (only 13% of those participating in our survey).

On to the real humdinger here: Penis size.

|  |  |  |
| --- | --- | --- |
| What penis size do you find most arousing on a man? | | |
|  | **F** | **M** |
| **Under 3 inches** | **0%** | **0%** |
| **3-5 inches** | **1%** | **2%** |
| **5-6 inches (Average)** | **35%** | **8%** |
| **6-7 inches** | **26%** | **9%** |
| **7-8 inches** | **14%** | **9%** |
| **8-9 inches** | **14%** | **2%** |
| **Over 9 inches** | **1%** | **0%** |
| **I do not find penises arousing at all** | **8%** | **69%** |

Our study’s female respondents were significantly less moderate than their male peers, with only 36% preferring a partner who had an average sized penis or smaller. Sorry, guys.

Now it’s time to wave goodbye to the hula hoopers and their distracting genitalia. Hopefully, they’ve changed the way you consider the manner in which we categorize our sexuality.

### BDSM Tribal Lands

Let’s leave boobs and penises behind and loop back around to an area of the forest settled by BDSM tribes to enjoy some of humanity’s more colorful and upbeat turn ons.

*Note: Our survey percentages will not equal 100% as they don’t include the breakdown for people who felt neutral about dominance/submission.*

Key:

* D = Acting Dominant
* S = Acting Submissive
* + = Arousal
* - = Aversion

Males

* 12% -D & -S
* 28% +D & -S
* 7% -D & +S
* 23% +D & +S

Females

* 10% -D & -S
* 9% +D & -S
* 24% -D & +S
* 29% +D & +S

To put it simply, females are more likely to be aroused by acting submissive and males are more likely to be aroused by acting dominant.

But here is where it gets interesting . . . and this is a little hard to explain, so bear with us. These male and female arousal patterns mirror each other to a remarkable extent. If instead of using the labels dominance and submission we label submission in females as P for the predominant arousal pathway and dominance in males as P for the predominant arousal pathway (while labeling the less common pathway L in both cases), you get:

* -P -L m12% f10%
* +P -L m28% f24%
* -P +L m7% f9%
* +P +L m23% f29%

For the numbers to align that tightly, there must be something going on here. It’s almost as though submission and dominance are tied to male and female sexuality in a similar fashion to people’s predominant attractions to the male or female form, but in the case of dominance and submission arousal patterns, we see more perfect mirroring. In other words, if you were to do the same exercise with something like attraction to the naked female form and the naked male form, you wouldn’t see the same kind of nice mirroring. At any rate, **male and female sexuality are more closely aligned in dominance and submission than they are to attraction to the male or female form.**

As a side note, we find it fascinating how common switches are among both males and females and it amuses us to no end that about 10% of the population finds both dominance and submission to be active turn offs.

### The Bondage Hut

Let’s take a moment to stretch our legs and get some hands-on—or rather *ropes* on—experience, you brave, curiously minded adventurers. Feel free to pick up some rope and have someone help you into some form of bind or another; you may find you quite like it.

Becoming aroused by being physically restrained is, as it happens, extremely common among women, with 45% of the population finding it arousing. Yes, we see you two ladies over there—stop being so shy and let this nice local tie you up.

Only about half as many of our male respondents (23%) reported restraints to be arousing, but guys, feel free to give this a try anyway; you might be one of those one-in-four men who rather enjoys being tied up. This lower rate of male interest in being put in restraints is very much in line with our related dominance and submission findings, which consistently indicate women are more aroused by submissive roles, whereas males are more turned on by assuming dominant roles.

For example, 26% of our female respondents reported the idea of being choked during sex to be arousing, which is over double the rate at which our male respondents reportedly feel aroused by such scenarios (12%). Similar patterns are seen with choking someone else during sex, with fewer women (10%) reporting arousal at the idea of choking someone during sex than men (21%),

We see this same flip flopping of giving and receiving across gender with behaviors such as:

* Being talked down to during sex (21% of women identified this as arousing, contrasted with 15% of men) versus talking down to someone during sex (which only 8% of women reported to find arousing, while 18% of their male counterparts report the prospect to be sexy)
* Being hit by a partner (which 26% of women reported to be arousing—a far greater proportion than the 17% of men who are into it) versus hitting a partner (7% of women reported this to be arousing in contrast to 13% of men)

### The Pain Market

Let’s take a quick stroll over to this charming, open-air market full of thatched stalls selling paddles, floggers, clamps, and all sorts of other delightful, pain-inducing toys and tools, so that we might explore pain as a physical turn on in greater depth. Feel free to keep those restraints on if you like; they make profoundly better souvenirs than t-shirts, right?

We were curious to know how people sexually identify with pain, so in our survey we asked the following question:

|  |  |  |
| --- | --- | --- |
| Does this statement describe you: “I sometimes look at pornography or read romantic literature in which one of the partners appears to be in pain.” | | |
|  | **F** | **M** |
| **Yes with a focus on physical pain** | **20%** | **15%** |
| **Yes with a focus on emotional pain** | **8%** | **1%** |
| **Yes with a focus on both physical and emotional pain** | **10%** | **11%** |
| **No** | **63%** | **73%** |

Here we see that specifically *physical* pain is far more associated with arousal than *emotional* pain—though emotional pain does seem to be tied to arousal patterns in a significant chunk of the population.

To those of you who picked out something nice for yourselves, tell us: What would you like to do with it? Would you like to use it on someone? Would you like someone to use it on *you*? Or perhaps would you like to see some *other* people use it? We found this general dynamic in our survey to be fascinating.

|  |  |  |
| --- | --- | --- |
| When you consume material in which it appears one of the participants is in pain, where do you place yourself in that fantasy? | | |
|  | **F** | **M** |
| **I sometimes imagine myself being the one in pain.** | **48%** | **42%** |
| **I sometimes imagine myself causing the pain.** | **27%** | **58%** |
| **I sometimes take the role of an observer.** | **52%** | **67%** |

(Note: This was a checkbox style question, so participants select multiple responses.)

Our survey respondents suggest that for both men and women, the preferred perspective is not the individual receiving or causing the pain, but that of a third party observer. This means the arousal is not coming from first-hand experience of dominance or submission, but rather something tied to *mentally processing* the concepts of dominance and submission—or the concept of pain and inflicting pain. To put it in other words, this finding suggests that the average person finds concepts on their own to be more arousing than the manner in which these concepts relate to them personally.

This, ultimately, is so much more interesting than the one-note conceptualization that so many people have of various fetishes and kinks. It would seem that in many cases, mere ideas are sexier to people than actual experiences. Isn’t that wild?

## Correlates to Arousal Patterns

We will pause the tour metaphor momentarily again as this section will touch on the topic of childhood sexual trauma.

When we commissioned this survey, our goal was to find what may “cause”—or at least what heavily correlates with—certain expressions of an individual's sexuality. For example, what makes a person get turned on by acting dominant or submissive? While dominance and submission-related arousal patterns are gendered in their expression, they aren’t so gendered as to make us think something else isn’t at play.

Before we proceed, bear in mind that some of the subgroups from which we tried to glean information were quite small, meaning our data should be taken with the hefty grain of salt that should accompany most findings associated with small sample sizes. From this point onward, our survey results should be thought of as “maybes” and as indications of places to dig further with real scientific studies—not as proclamations of what is true. Getting a large enough sample size to have a hundred of each of these subgroups, which is what we wanted to do, was ultimately not realistic.

When we first dug into this topic, we imagined that childhood conditions would appear to play a big role in the manifestation of human sexuality in adulthood. In line with this assumption, we collected all sorts of information on things like sexual versus non-sexual childhood abuse, whether a person was spanked as a child, how much money subjects’ families made when they were growing up, how their families were seen by their local communities, the strictness of their parents, the political beliefs of their parents, the religions in which they were raised, the size of the towns in which they grew up, etc. This diverse line of questioning was posed in an effort to parse out which childhood events and conditions affected adult sexuality and which did not.

We were shocked by our results. Essentially, we found that almost everything that happens to a person before puberty has very little influence on their sexuality as an adult, with the two exceptions being the size of a person’s childhood town and the strictness of their parents. Obviously, the biggest shock to us is that we found no systematic effects of childhood sexual abuse on arousal pathways—or at least that is what the stats we collected seem to show. We are aware of some studies that suggest otherwise but are not aware of any of these studies using the same methodology to contrast equivalent pre-puberty traumatic events with post-puberty traumatic events.

### Childhood Sexual Assault vs. Sexual Assault in Adolescence

Individuals in our survey who were sexually assaulted before hitting puberty (the period during which adolescents reach sexual maturity), featured no deviation in kink scores from the mainstream population and bore no discernible change in arousal patterns tied to things like choking, being hit by a partner, hitting a partner, or even arousal rates tied to rape roleplay or rape itself. While this group of respondents did show a slight preference for losing agency and a slight increase in the frequency of masturbation, these two effects were small and when viewed in context, are likely false positives from data dredging rather than any indication of genuine correlation.

That childhood sexual assault would correlate with arousal pathways around rape and assault no more than childhood dog ownership or the wealth of one’s family truly shocks us. When we presented this data to a sex psychologist friend in hopes that they might sanity check our findings and expressed our dubiousness in the face of the results, she said the data didn’t surprise her *at all* and that it lined up perfectly with her anecdotal client experience.

In the strongest possible terms, we are not arguing that the sexual assault does not lead to long-lasting psychological effects—it categorically does. Specifically, childhood assault is associated with an increased rate of depression, anxiety, PTSD, nightmares, obesity, and distorted self-perception. Our data merely seems to suggest that these psychological effects do not seem to correlate with adult arousal pathways.

In contrast, those who were sexually assaulted *after* hitting puberty feature moderate, though not extreme, effects on their arousal patterns across the board.

The biggest effect post-puberty sexual assault seems to have on adults is that those who were sexually assaulted as teens were vastly more likely to be turned on by roleplaying rape scenarios: 47% of the women we polled—and 33% of the men we polled—who were sexually assaulted as adolescents found rape roleplay to be arousing, whereas only 22% and 12% of the general female and male population respectively found rape roleplay to be a turn on. This is in line with findings from other studies on the subject.

Being sexually assaulted as an adult also appears to increase the number of things that arouse people in erotic material, an effect not seen for males or females that only experienced sexual assault before puberty. In female survey respondents, sexual assault in adulthood was associated with higher arousal in response to violent or violent-adjacent submission, such as an increase in arousal from being bound, with 41% of women in this category ranking being bound as extremely arousing when contrasted to only 12% of the general population. Female victims of sexual assault in adulthood also reported higher arousal in response to being hit by a partner, with 23% of women in this category ranking being hit as extremely arousing when contrasted to only 8% of the general female survey population. Furthermore, female adult sexual assault victims reported an increase in arousal from being owned by someone, with 18% finding it extremely arousing—up from 3% in the general population.

Here we need to note that these large differences are only seen when looking at extreme levels of arousal from such activities. In other words, the occurrence of sexual assault post-adolescence doesn’t seem to correlate with whether a woman gets aroused by these activities at all, rather it appears to correlate with the volume of the arousal output associated with them.

Finally, sexual assault experiences in adulthood are correlated (in our data, at least) with both higher libido and higher rates of masturbation: 45% of women in taking our survey who reported being sexually assaulted as adults also reported masturbating more than three times a week, contrasted with 23% of the general population. Again, this is not seen in those who reported being sexually assaulted before puberty.

With all this being the case, why is there a common assumption that childhood sexual abuse causes adults to experience sexuality so differently? We think it's important to remember that a big chunk of the population is into weird sexual stuff, and if you fall into that group and happen to *also* be the victim of childhood sexual assault, it gets REALLY easy to point at that relatively unusual sexual proclivity and say: “My childhood sexual assault explains why I am so into [insert non-mainstream sexual interest here].” We would go so far as to say it would be weird if people didn’t make this assumption.

Also, recall that there is a ton of evidence suggesting that childhood sexual abuse does lead to PTSD. Given that PTSD can be triggered by situations that bear a semblance to the situation that caused it, it would be common for such individuals to have PTSD reactions in sexual scenarios. It would be very easy to mistake this PTSD reaction for something to do with an arousal pathway because it was happening in a sexual context and was triggered by sexual stimuli. However, PTSD is neither an arousal nor an aversion reaction, but rather a panic reaction.

**Note from the Research:**

* There is a famous study showing that goats can form an attraction to another species based on life experience before puberty. Studies have also shown that men who grew up with a pregnant mother (i.e., guys with a younger sibling close in age) have higher rates of attraction to porn with pregnant women in it. These two pieces of evidence suggest we are wrong in our interpretation of our data, and that life experience before puberty can have at least a limited impact on adult arousal patterns. We emphasize this because we do not want readers to come away from this book thinking: “Stuff that happens in childhood has no effect on adult sexuality.”

Now you may be wondering: Does our survey data suggest that *anything* in childhood has an effect on adult sexuality? We separated out both sexual and non-sexual childhood abuse and found the same results: Nothing unusual. We also looked into whether growing up in a “high power” family might make someone more dominant or sexually aggressive/violent: Nothing unusual there either. We even looked at spanking, assuming it would at least have a connection to the prevalence of spanking or impact play kinks. Again: Nothing. That said, being spanked as a child does seem to increase rates of arousal in response to submissive play during sex among men and women alike.

### Bucolic Childhoods & Their Surprisingly Violent Connections

Having braved the topic of sexual abuse, let’s grab some fresh air—plus some findings related to childhood conditions that actually *do* appear to correlate with distinct sexual preferences in adulthood.

We did find two areas of early childhood development that may have moderate effects (at least moderate correlation) on adult sexual preferences. Both correlations surprised us. In some species of primates, the size of their troop, amount of resources in the environment, or other environmental features can alter the “behavioral template” that gets expressed through something called behavioral polymorphism, so we decided to try to determine if there may be a similar effect in humans—and by golly, it looks like there might be. This explains why we find ourselves driving through bucolic rural farmland at the moment. Feel free to roll down the windows, but keep away from the male residents (you’ll see why in a moment, darlings).

Specifically, males who took our survey and grew up in a rural environment were 240% more likely than their urban, small city, and suburban counterparts to report finding the thought of *actually* raping someone arousing (at around 17% instead of 7%). Interestingly, our study’s rural respondents were *not* significantly more likely to find the thought of merely *roleplay raping* someone more arousing than the general male population (18% versus 16%).

Men and women responding to our survey who grew up in rural environments were also much more likely to find the thought of owning someone to be arousing, at around 33% (versus an average of 15% among our entire male survey population) and 19% (versus an average of 12% among our entire female survey population) respectively. In general, it appears that growing up in more sparsely populated areas tracks with arousal in response to violence. Urban-raised males are much more likely to find sexual violence to be an active turn off.

Rural females who took our survey professed to be far less likely than any other female demographic to report finding rape roleplay to be arousing, at only around a 6% level, whereas women who grew up in suburbs, small cities, and large cities all reported finding the idea of roleplaying being raped to be a turn on at around the same level (20%, 23%, and 26% respectively).

Women who grew up in cities both small and large reported the idea of *actually* being raped much more arousing at rates of 15% (6% average) and 16% (12% average) when contrasted with those in rural and suburban environments, who reported finding the thought of actual rape to be arousing only at a 0% and 4% level. We discovered the inverse of this trend among male survey respondents, with men in rural environments being far *more* likely to report finding the thought of *actually* being raped arousing when contrasted with any other male demographic at 17% (around 17% also reported the idea of rape roleplay to be arousing).

Women who grew up in rural environments and small cities also reported the idea of being struck by a partner during sex to be arousing at almost twice the rate of those in cities (35% rural and 31% urban versus 16% in cities) with a similar pattern appearing in relation to being choked (38% rural and 31% urban versus 21% in cities). We see an inverse of this trend when it comes to female preference for choking *others*, with 16% of our city-dwelling respondents reporting the idea to be arousing versus 6% of our rural female respondents and 8% of those living in small cities. Female and male patterns match up very well here, with city-dwelling males getting much more turned on by being hit (22%, versus 8% rural male respondents), much less turned on by hitting their partner (17%, versus 25% of male respondents in rural environments), and much less turned on by choking a partner (6%, versus 24% of rural male respondents).

In sum, those who grow up in areas with less dense populations (or perhaps in environments where animals are more commoditized) seem to have their arousal patterns optimized for a more aggressive male reproductive strategy and a more defensive female reproductive strategy. *However*—and this is a big however—this is likely just a shadow of the effects that an individual's political views have on arousal pathways. We say this because political views have a similar but more extreme effect on arousal pathways and also correlate with rural vs. urban life (we dig into this shortly). If it’s really political leanings that influence these factors (rather than rural versus urban childhoods), this pattern would also fit a larger trend we found, in which a person's worldview affects their arousal pathways much more than their living conditions or events in their life—more on that later.

### Strict Fathers

Our eagle-eyed guests may remember we did find one thing that a person's parents could do that *may* affect arousal patterns after the person grew up; well, here we are. Let’s stop by this farmhouse and pose for photos with this very strict-looking dad.

Indeed, parenting style—at least when it comes to strict parents—presents another childhood domain that may affect adult arousal patterns. In our survey, female respondents who grew up with a strict father were more than twice as likely to enjoy rape roleplay (35% to 14%) and almost twice as likely to become aroused by the thought of actually being raped (12% to 7%) when contrasted with female respondents whose fathers were not strict. Daughters of strict fathers responding to our survey also preferred larger penises.

This is not to suggest, in any fashion, that strict fathers rape their daughters. Perhaps the greater interest in rape roleplay stems from having found some comfort in a figure in one’s life taking firmer control being transferred to a sense of arousal in the face of someone seizing a huge amount of sexual control via the act of rape. This may just as easily be a data-dredged false positive, as the effect is not as consistent as the rural versus urban effect, does not extend to strict mothers, and does not have a corollary effect in males. It may also just be that strict fathers are more common in rural environments, making this just another manifestation of the effect found above.

To put this another way: With the case of rural versus urban effects, we saw a similar pattern across genders that affects several arousal pathways and bears a consistent theme. This clustering of evidence gave us reason to believe the effect was real, though it could have been caused by a common influencing factor (like politics) affecting both one’s location *and* arousal pathways. In contrast, when we consider the case of parental strictness, we only see just a few blips, such as the increased female interest in rape roleplay.

To put a bow on this: Much to our shock, our survey suggests the events and conditions of childhood do not seem to systematically affect arousal patterns as an adult. The only two exceptions to this pattern are both dubious, with the rural-urban exception likely being the result of an external correlation (perhaps political affiliation) and the other, parental strictness of fathers to daughters, likely just being a false positive from data dredging or the same urban-rural effect being viewed from a different angle.

## Diversity Land

Rejoice, brave passengers, as we enter the small Epcot knockoff zone of our survey landscape—Diversity Land—and explore the effects of ethnicity on sexuality. Grab a corndog; they’re about the only things worth trying here.

Alas, ethnicity does not seem to play all that prominent of a role in our arousal—especially when contrasted with other factors we have yet to explore. There were, however, a few curious and systematic differences worth discussing, as ethnicity did present more robust correlations than those we found in relation to childhood conditions.

The clearest example of ethnicity having a systematic effect on arousal pathways is that different ethnicities appear (at least from our data) to have different preferences for penis size. As you gnaw on your corn dog and enjoy the miniature nation-themed landscapes to your left and right, consider how various ethnic groups appear to have varying tastes for a . . . different sort of sausage.

Black female survey respondents reported a preference for significantly larger penises than any other ethnicity—with 37% preferring penises over 8 inches long and 5% preferring penises over 9 inches long. Female East Asian respondents, in contrast, professed a significant preference for smaller penis sizes, with 67% preferring penises below 6 inches in size. White, Hispanic, and South Asian study respondents reported preferences for penises at around 6-7 inches.

In general, women from ethnicities with larger penises on average appear to prefer larger penises, and women from ethnicities with smaller penises on average appear to prefer small penises. Interestingly, our data suggest ethnicity has no discernible effects on male respondent preferences for breast size. (Sorry, we forgot to check for butt preference—something a bunch of this book’s early reviewers wanted to know about.)

We know what some of you may be thinking: “It seems like almost all ethnicities of women prefer penises of above-average size.” You’ve got that right: 61% of women prefer a penis of above-average size.

As this book was heading to the printers, one of our black friends mentioned a stereotype that black women did not like giving head as much as white women. We had never heard this stereotype before and had not thought to search our data for it. We went back in to give the data a poke and—believe it or not—there is actually almost no difference in preference for fellatio by race (black women 45% vs. white women 46.4%) . . . or at least no reported difference in preference for erotic material featuring fellatio. You might therefore consider this particular racial stereotype busted.

Ultimately, ethnicity does not appear to have much of an effect on arousal. This makes sense given that most arousal patterns appear to not be socialized. If socialization played a larger role in our arousal patterns, we would expect the vastly different life experiences of Americans who grow up in different ethnic demographics to shape their arousal patterns at least to some extent.

## The Colosseum of Sexual Influence & Big Four Show

Let’s pull into this replica Roman Colosseum in Diversity Land—the Colosseum of Sexual Influence—to take a gander at the myriad factors that actually *do* correlate with interesting sexual arousal pathways.

The big performance that takes place in this Colosseum every hour on the hour showcases The Big Four, as we like to call it—four factors that correlate very strongly with various arousal pathways:

1. Political affiliation
2. Self-reported wealth
3. Self-reported hotness
4. (No joke here) Personal preference for dogs/cats

Looks like we got here a little early, but that means we can catch the BDSM show presently taking place—it just so happens to exemplify some other fun correlations we found.

See those two ladies who appear to be having the time of their lives as they play out a wee dom-sub routine? Chances are both have excellent self-esteem. While our survey suggests that self-esteem has little effect on male sexuality, we found it is highly correlated with females becoming more turned on by acting dominant, while also not being any less likely to be turned on by acting submissive. Women reporting high self-esteem in our survey turned out to be twice as aroused by dominance when compared to their less-self-confident female compatriots. **It is as though self-esteem selectively unlocks the ability to be turned on by dominance in women.**

To put this another way, women with high self-esteem are not less turned on by anything that turns on a “normal” woman. Women with high self-esteem are just as turned on by acting submissive as the average woman. However, women with high self-esteem will find acting dominant in a sexual context *more* arousing than their less self-confident female peers. To us, this indicates that all women may actually be more “switchy” than other data pools give them credit for, being able to become aroused through both submission and dominance. This dominant-submissive ambidexterity might be hidden by a high prevalence of low self-esteem in our society.

OK, so what about happiness? Well, that intimidating female dom may be having a blast right now, but chances are she’s one of the less happy cast members of Diversity Land. Unhappy females in our survey turned out to be more than twice as likely to play the dom in a BDSM context (23% versus 7%), while happy females turned out to be far more likely to play a sub (32% versus 19%).

On the other hand, while happy men taking our survey were slightly more likely to be doms in a BDSM context (12% to 8%), they were *four times* more likely to play a sub (8% to 2%). **In other words, happy people are much more submissive, regardless of their gender.** If this effect is causational, we expect that it is simply easier for someone with submissive tendencies to be happier, as submission is inherently a relinquishment of power along with a relinquishment of responsibility, and a lack of responsibility increases one's mood.

Interestingly, if you look at what differentially turns on unhappy people, it may not be that simple. *Unhappy* women are far more aroused by things like being tied up (59% to 38%), being hit by a partner (41% to 19%), and being choked (18% to 10%), which is weird, because *happy* men are more aroused by the same things: Being bound (21% to 11%), being hit (19% to 5%), and being choked (17% to 3%).

As you can see, while submission seems to make everyone happier—unhappiness in women and happiness in men is related to arousal in the face of what we will call “violent and violent-adjacent submission.” We genuinely do not know what is going on here—but the effect is consistent across similar arousal categories, so there is probably something actually happening. Have any theories on this front? Send them to Hello@Pragmatist.Guide and share them with us.

Have a glance at the gentleman down there taking a beating from a female dom. He may be sinister, and we’re not referring to his BDSM tendencies; our survey data suggests that left-handed men are more than twice as likely to be submissive and left-handed women are more than twice as likely to be dominant, however left-handedness was not associated in our data with more dominance in males or less submission in females.

Across the board, left-handed men who took our study were more likely to be aroused by arousal pathways typically associated with women but were not less likely to be aroused by the arousal pathways typically associated with men. Likewise, our left-handed female survey respondents were more likely to be aroused by arousal pathways typically associated with males but were not less likely to be aroused by arousal pathways associated with females.

In other words, the average left-handed person appears to harbor more arousal pathways, selectively gaining more access to those which typically stick along gendered lines, with left-handed women being more likely to be turned on by male arousal pathways and left-handed men being more likely to be turned on by female arousal pathways. This is not super surprising given that studies in the past have shown left-handed individuals are far more likely to be gay (well, 34% more likely).

While we wait for the snack carts to clear out before the main event, consider sampling the following tasty tidbits suggested by our survey results:

* Significantly overweight women who took our survey—more than women of any other body type—preferred much larger penises. This makes sense, as it can be difficult for significantly overweight women to comfortably achieve penetrative sex with smaller penises.
* Both men and women who reported to masturbate to furries in our survey were more likely to see themselves as unattractive, but the effect is less strong in women than in men.
* Female survey respondents who classified themselves as the variant of bisexual attracted to at least men and women were far more likely to become aroused by being submissive, with 80% falling into that category contrasted with 62% of straight ladies. In fact, a sizable portion of the females in our survey seemed predominantly aroused by submission—or seeing their partner act dominant in a sexual context—instead of the male or female form. Given their disinterest in gender, rather than labeling this group by its orientation toward certain genders, it might make more sense to say they have “dominance-oriented sexuality.” (Though in current parlance they would likely be described as being pansexual with a strong submission kink.)
* Only 30% of women who took our survey and reported attraction to both men and women also reported feeling turned on by acting dominant, which is only a little less than the proportion of straight women who get sexually aroused by acting dominant (around 40%).
* Dominant female survey respondents were way more jealous than submissive female respondents, with only 34% of all females ranking themselves as being at the high end of the jealous spectrum (with 17% putting them at the very highest end of the jealousy spectrum), but 70% of dominant females doing so (with 40% putting them at the very highest end of the jealousy spectrum). Male survey respondents did not exhibit the same pattern. Simone suspects this correlation in women is the product of higher testosterone in these individuals, as testosterone increases mate guarding behavior.
* Religion did not have a strong impact on arousal patterns.
* Interestingly, our male survey respondents’ body weights had no correlation with whether or not they found overweight women attractive—neither did the weights of their mothers. What *did* correlate with attraction to overweight women? Whether or not a male respondent had a mother around growing up. Men who grew up without a mother figure in their lives and took our survey were far more likely to look at porn with obese women. We have no idea why this would be and assume it is a false positive, but feel free to create your own theory here and write a clickbait article about it (just give us a shout out). Unfortunately, it is so rare for women to find overweight men attractive there wasn’t enough data to look at the other side of the coin.

Keep in mind that we looked at a LOT of variables. Only a few strongly correlated with a person's arousal pathways in what looked like a systematic pattern (i.e., in a way that was unlikely to just be random false positives from data dredging). We remind you of this because we don’t want to mistakenly give the impression that everything is heavily correlated with sexual expression. Most questions we asked of our survey population did *not* yield any unexpected hearty connections to arousal pathways that jumped out at us enough to dig into. For a list of these other questions:

* What is your birth order? (Oldest, middle, youngest, or only child, etc.)
* How big was the town in which you spent the majority of your childhood?
* Did you grow up in a two-parent household?
* Was your father permissive or strict while you grew up?
* Was your mother permissive or strict while you grew up?
* What were your dad's political leanings while you were growing up?
* What were your mom's political leanings while you were growing up?
* Did you have a strong father figure growing up?
* Did you have a strong mother figure growing up?
* Do you feel that you grew up in a family that you would call “powerful” vis a vis the local community?
* Did your family ever have trouble affording food or other basic necessities as you were growing up? (This question is intended to look for a correlation between lack of resources during early brain development and certain kinks. Please answer yes if hunger due to a lack of food was a feature of your childhood.)
* How happy was your childhood?
* Do you see yourself as popular within your social circles?
* How often do you socialize in groups?
* Is your friend group predominantly male or female?
* How religious are you?
* Do you have an office job?
* What are your political leanings?
* Do you believe you are better than other people?
* Are you feeling hungry at this moment?
* Are you on a calorie restriction diet, or are you currently fasting?
* How often do you exercise?
* Is the idea of having children appealing to you?
* How attractive would you rate yourself?
* What is your body type?
* How frequently do you have sex?
* How frequently do you masturbate?
* How do you feel about your sexuality?
* Rank your libido.
* Do you have a partner (or partners)?
* Are you currently in love with someone?
* Do you prefer monogamy? Polyamory?
* How would you rate the quantity of your sexual experience?
* Have you been involuntarily physically abused by a romantic partner?
* Were you ever physically abused as a child?
* Were you ever spanked as a child?
* Would you choose a partner with a dog over the same potential partner without a dog?
* Would you choose a partner with a cat over the same potential partner without a cat?
* Do you have a pet?
* What is your current age?
* What is your level of education?
* What is your yearly income?
* Do you have a position of authority in your work?
* Is your boss mean to you?
* Are you on birth control?
* Are you currently pregnant?
* Which of the following best describes the religious traditions with which you were raised?
* What are your current religious beliefs?

We are not saying that none of these questions yielded systematic links to arousal patterns. While several answers to the above questions did show some correlation with arousal patterns, we ignored most. Why? We sought dramatic, huge, and consistent effects on arousal patterns.

Actually . . . a few of the above questions that didn’t make it into the big four *did* have effects that met that criteria, but when they did, they appeared to be a “shadow” of one of the big four. For example, having a position of authority at work had a very similar effect on arousal patterns as wealth did, because the two correlate with each other. Wealth made it to our big four and a position of authority at work did not, as the effect wealth had was “louder,” leading us to believe it was the primary driver of this unusual arousal pattern.

Great timing: It looks like the show is ready to start. Time to see how the big four—politics, wealth, hotness, and cat/dog preferences—correlate with arousal pathways.

### The Political Promenade

As you can see, the show is starting off with a patriotic military parade. Feel free to grab the flag of your choice and a sparkler as they pass them around; it’ll help to get you in the mood.

An adult’s current political beliefs appear to correlate fairly strongly with their arousal patterns.

You might be looking down at the conservative contingent below and thinking, “Well, *duh*, conservatives are going to be way more sexuality inhibited than liberals”—however, you would be wrong. Our survey data suggested no difference at all between conservative and liberal “kinkiness score” in either men or women. In fact, our conservative survey participants reported dramatically higher libido than their liberal counterparts, with 66% of conservative women reporting a-higher-than-average libido versus 37.5% of liberal women and 72% of conservative men reporting a higher than average libido versus 48% of liberal men.[[69]](#footnote-69) Also, if you think male conservatives prefer generic-looking women, you would also be wrong. Actually, political beliefs—in our data at least—had no effect on preference for things like breast size.[[70]](#footnote-70)

So how do a person's political beliefs relate to their sexual expression? Grab a pair of binoculars and take a gander at the parading masses below, specifically observing the military accessories flashed by the conservative crowd.

**Males**

Our data suggests males who self-identify as conservatives are more aroused by violence against *others* while males who self-identify as liberals are more aroused by violence against *themselves*. For example, when we contrast male liberals and conservatives, conservatives from our data are more than twice as turned on by hitting a partner (20% to 8%) and choking a partner (33% to 13%), while liberals are more turned on by being hit by their partner (21% to 12%), more turned on by being tied up (28% to 16%), and more turned on by being talked down to during sex (33% to 13%).

In general, self-identified male conservatives from our survey were just *way* more turned on by acting dominant (71% to 57%), while self-identified male liberals were way more turned on by acting submissive (45% to 29%).

Perhaps the biggest effect in males was how their politics correlated with how aroused they reported to be by rape, with conservative males becoming aroused by rape roleplay at markedly higher rates (38% to 8%) and feeling aroused by the idea of *actual* rape more as well (25% to only 2%). Surprisingly, given their derogatory use of the word “cuck,” but in line with other studies on the subject, male conservatives are also almost twice as likely to be turned on by watching their partner have sex with another person (21% to 11%).

You may be amused by the types of erotic art each political leaning reported consuming in our study. Conservative male participants reported consuming narrative forms of erotic art at dramatically higher levels than their liberal peers (romance novels 12% to 0%, erotic fanfiction 12% to 6%, and erotic young adult novels 8% to 2%) while liberal men were more likely to report a focus on personal imagination (54% to 48%) and live-action video (81% to 72%).

**Females**

What about females? In contrast to males, political ideology had no meaningful connection to our female survey population’s preference for submission or dominance. But here it gets wacky: Conservative females who took our survey were more likely to become aroused than liberal female respondents by almost *any* violent act, be that act committed by them personally or a partner.

Conservative female survey respondents reported getting more turned on by choking their partner (15% to 9%), more turned on by being choked (35% to 18%), more turned on by striking their partner (19% to 7%), more turned on by being talked down to (31% to 16%), more aroused by talking down to their partner (15% to 9%), more aroused by being raped in a roleplay context (38% to 16%), more turned on by being bound (62% to 38%), raping a partner in a roleplay context (19% to 7%), actually being raped (23% to 5%), and actually raping someone (15% to 0%). The only violence-related act that did *not* follow this trend involved arousal from being hit (27% to 27%).

On a tamer note, and perhaps unsurprisingly, conservative women are also vastly more turned on by masculinity (92% to 58%).

As to whether we see the same divide in erotic art consumption in women as well: We do, but it doesn’t follow the exact same pattern, with conservative ladies reporting higher romance novel consumption (52% to 41%), higher consumption of erotic young adult novels (16% to 11%), and more daydreaming (72% to 69%), but less fanfiction consumption (12% to 20%).

As you can see, both male and female liberals and conservatives appear to have two totally different sets of arousal patterns. Are their politics driving the arousal pattern differences, are the arousal pattern differences driving their politics, or is there some common external factor driving both we didn’t catch with our other questions? In contemplating this question, we would like to remind readers that studies of identical twins separated at birth and adopted by different families shows our political beliefs are actually highly heritable—making this finding even more engaging. What if it turns out that the patterns we see showing “heritable politics” are actually heritable arousal strategies that affect one’s politics? What if our political inclinations are just one weird manifestation of what turns us on? If we had the money and time, the first thing we would dig into was whether or not unusual arousal patterns are heritable.

One final systematic pattern we found distinguishing conservatives and liberals can be observed in their differential reactions to relationships. Conservatives responding to our survey were more likely to report being in love than liberals (f65% to f55% and m60% to m46%) and were more likely to be jealous (f35% to f25% and m24% to m9%).

***Additional Political Tidbits***

*As if you had not already stuffed yourself with theme park corndogs and stadium snacks, some of you are looking downright starved. Thankfully, we bought along a picnic basket of homemade treats to get you through the final stretch of our tour.*

*What could possibly be tastier than stats which tell a meaningful story about the human condition? Water cooler stats, of course! Such stats are delicacies to all of us, especially reporters, bloggers, and armchair political theorists. Since politics is such a contentious subject, we figured doing a deeper dive into how a person’s political stance correlates with what turns them on might allow other people to see patterns we didn't and give them something to talk about—perhaps giving us some free promotion in the process.*

*Bon appetit!*

*According to the self-reported data from our survey:*

* *Liberal women are much more likely to fantasize about “A ‘trashy’ man” at C8% L30% but liberal men are no more likely to fantasize about “a ‘trashy’ woman” at C56% L56%.*
* *Conservatives are way more likely to fantasize about a married couple, with females at C52% L24% and males at C52% L39%*
* *Conservatives watch/read porn featuring two men having sex at slightly higher rates than liberals. In females, this is C24% to L22%, and in males, this is C8% to L7%. (The real surprise here is that conservative men appear to watch slightly more gay porn than liberal men. We suspect this is because the portion of the male population aroused by men is not different between conservative and liberal groups, but conservative groups are less likely to act on gay preferences outside of masturbation. Also, this is not a statically meaningful difference, so we are probably just looking at parity in porn consumption.)*
* *Liberals watch/read porn of two women having sex at much higher rates than conservatives. In females, this is C28% to L39%, and in males, this is C52% to L76%.*
* *Liberals watch/read porn featuring anal more than conservatives. In females, this is C36% to L43%, and in males, this is C52% to L61%.*
* *Liberals watch/read porn featuring fellatio and cunnilingus more than conservatives. For fellatio: Females C36% to L43% and males C60% to L70%. For cunnilingus: Females C36% to L59% and males C52% to L54%.*
* *While liberals slightly prefer sex with feet, conservatives are disinterested in erotic art focused on feet. For sex with feet: In females, this is C8% to L9%, and in males, this is C16% to L20%. For feet alone: In females, this is C0% to L9%, and in males, this is C0% to L17%.*
* *While porn featuring sounding is disinteresting to male conservatives (0% of our conservative male survey respondents reported consuming it), it does appear to be of mild interest to liberal men (a full 7% of liberal men did—in women this was C4% and L4%). This backs a trend you will see throughout this data: Liberal men appear to get turned on by having themselves get hurt, while conservative men get turned on by having others hurt.*
* *See if you can figure this one out: Both conservative men and women prefer scat erotic art at twice the rate of liberals (C4% to L2% in both cases), but liberals prefer erotic art with urine at about three times the rate of conservatives (females C4% L11%, males C4% L15%).*
* *Conservative men are much more likely to consume erotic art featuring someone sleeping with a biological relative (C20% to L11%), but in females, there isn’t much difference (C12% L13%).*
* *OK, here's a weird one: Liberal women consume more inter-racial erotic art than conservative females (C24% L41%), but conservative males consume more inter-racial erotic art than liberal males (C44% L39%).*
* *Ready for another weird one? Conservative women really like “giant penis” porn (C12% to L6%), while in men, consumption rates are even (C4% L4%). Both conservative men and women vastly prefer “giant breast” porn (females C12% L6% males C28% L13%).*
* *To complete the string of bizarre findings for which we have no explanatory theory: While liberals and conservatives consume erotic art featuring characters from children-focused pop culture at around the same rate (females C8% L9% and males C12% L9%), liberals consume erotic art featuring adult-focused pop characters at dramatically higher rates (females C4% L15% and males C4% L20%).*
* *We already went over some of the violence-related results, but here are few more:*
* *Male-on-female violence: Female C16% L6%, Male C8% L2%*
* *Female-on-female violence: Female C8% L2%, Male C4% L2%*
* *Female-on-male violence: Female C12% L4%, Male C4% L4%*
* *Male-on-male violence: Female C4% L2%, Male C0% L0%*
* *Vore, absorption, necrophilia, and snuff—the kinks tied to people being hunted or killed—lean vastly conservative. Absorption: Female and Male C4% L0%, Vore: Female C8% L0%, Male C4% L2%, Necrophilia: Male and female C4% L0%, Snuff: Female C12% L0%, Male C4% L2%.*
* *Perhaps unsurprisingly, conservative women fantasize about getting pregnant way more than liberal women (C20% L6%)—the same goes for giving birth (C8% L4%). What is surprising is that conservative women also fantasize about getting other people pregnant even more often than liberal women fantasize about getting pregnant themselves (C8% L2%). (In males, these numbers were C12% L11%, C0% L0%, and C16% L11%, respectively.)*
* *To flesh out the “cuck” trend cited above: Conservatives are way more into cuckolding than liberals. Females: C20% L7% and Males: C20% L17%.*
* *Caregiver-little porn (think daddy dom little girl stuff) is vastly preferred by conservatives. Female: C16% L6% and Male: C12% L6%.*
* *Conservatives also appear much more involved with self-focused arousal patterns:*
* *Thoughts of yourself: Female C44% L37%, Male C24% L19%*
* *Thoughts of displaying your genitals in public: Female C4% L6%, Male C12% L2%*
* *Thoughts of yourself being sexually irresistible: Female C28% L26%, Male C16% L11%*

### The High-Net-Worth Extravaganza

Wasn’t that a great start to the show? Well, it gets better. We *love* this part: No, it’s not just your imagination running amok: Luxury helicopters are indeed landing in the stadium as the patriotic promenade scuttles toward the exits amidst high levels of chopper-driven wind. Have a look at this land’s most well-heeled denizens.

We investigated the nature of our survey respondents’ jobs, education levels, positions at work, income levels, self-esteem, happiness, and self-perception of wealth (i.e., “Would you consider yourself wealthy?”). These factors correlate with each other, so effects from one bleed into the others. However, when looking at the stats, it was clear the leading factor among them was the perception of wealth—how wealthy an individual thought they were.

You won’t be crazy to think the expensively dressed high rollers stepping out of those helicopters look a bit . . . cold, cruel, and calculating. Our survey findings suggest that wealth makes males and females more dominant *and* more turned on by violence against their partners, but in males, wealth has a *secondary* effect of making them turned on much more by concepts and much less by the feminine form.

It isn’t just the six-inch Manolos those ladies are wearing that makes them seem intimidating—wealthy women who responded to our survey were far more likely to become aroused by acting sexually dominant, with 70% in our survey reporting that acting dominant arouses them, whereas only 27% of female survey respondents who saw themselves as low-income reported feeling the same way.

We didn’t find a single wealthy woman in our survey that found the thought of being sexually dominant to be a turn off, while 36% of low-income women did. Similarly, 71% of our self-reportedly wealthy male survey respondents reported feeling turned on by acting dominant, whereas only 44% of their self-reportedly low-income male counterparts felt the same way.

Don’t think those moneyed strutters down there are only into dominance. Our study suggests that wealthy men are also more likely to be turned on by acting submissive, as 75% of our self-reportedly wealthy male survey respondents reported getting turned on by acting submissive, contrasted with only 44% of our self-reportedly poor survey takers. A similar effect is *not* seen among the female respondents to our survey.

You may notice that the gentlemen below are not gawking with slack jaws at the ladies. Our study suggests that wealthy men are far less likely to be turned on by the sight of the female form and are far less likely to find it very arousing when their partners act feminine than low-income men (who are by far the most likely to find it very arousing when their partner acts feminine out of any wealth category). Wealthy men simply do not find femininity or the female form terribly arousing.

In addition, our data backs up a pattern that has been observed in other studies: That wealthy men prefer smaller breasts. This pattern is even more striking than we anticipated in our data—not a single man in the wealthiest category of those taking our survey reported preferring a breast size above average, with around half preferring small breasts.

Our survey respondents who reported being in the second-highest wealth category reported preferring small breasts at a rate of 17% and a robust 84% preferred breasts of average size or below. Contrast that with the lowest income category of men who took our survey, who reported preferring small breasts at around only a 5% rate and the second poorest preferring them at around the same level (only 4% in this case).

Essentially, as a person becomes wealthier, their preference for breast size scales down in lockstep with their wealth after they feel financially stable. Other studies have shown that hungrier men prefer larger breasts as well, which suggests it might be an evolutionary adaptation for men in times of famine to search for partners with more fat stores and thus larger breasts.

Now, this is a really bizarre effect: **It looks like the wealthier a person is, the more they are turned on by fantasies in which they are a man, and the poorer they are, the more they are turned on by the idea of themselves as a woman.** Women who took our survey were much more likely to get turned on by the idea of themselves as a man if they reported being wealthier (33% of our reportedly wealthy female survey respondents reported fantasizing about being male versus 6% of our female respondents on average). Also, wealthy women responding to our survey were more likely to fantasize about impregnating other women, with 33% having the fantasy, versus only 2% of any other class of women. At the same time, the poorest category of men responding to our survey reported fantasizing about themselves as women at a 5% rate, the second poorest at a 4% rate, and not a single man who thought of himself as of average wealth or above in our sample ever reported fantasizing about themselves as a woman.[[71]](#footnote-71)

We have no idea what is going on here. Maybe it has something to do with how our society conceptualizes wealth and social roles. Maybe it has to do with society seeing women as disempowered, and therefore a portion of people subconsciously assume they are more male when in positions of power and more female when they have less power (but frankly we hate this theory—it’s too Freudian). If you have a theory you are passionate about, we would love to hear your thoughts on this; send your theories to Hello@Pragmatist.Guide or better yet, share it with the world on YouTube or in a post somewhere online and send us a link.

As for wealthy people being more aroused by violence: Wealthy men are much more likely to be aroused by the thought of actually raping someone when contrasted with other demographics. In addition, 38% of our self-reportedly wealthy male survey respondents reported to be turned on by the thought of hitting their partners, whereas only 16% of the poorer male respondents felt the same way, and 38% of these wealthy men reported finding the thought of choking someone during sex to be arousing contrasted with 10% of the poor men. In general, men who feel poor are much less likely to be aroused by the concept of any sort of violence against a partner. This is interesting, given that domestic violence is more common in poorer communities. We assume these increased rates of domestic violence reflect an impulse control issue and not an arousal pathway issue, as the emotional pressures of poverty are shown to significantly decrease impulse control, which is likely what causes the higher rates of domestic violence.

This arousal by violence against one’s partner extends to wealthy women as well, with around 50% finding this violence arousing at the highest levels of wealth. Contrast this with only 4% of the lowest wealth category of women. You see a similar pattern with choking, with women becoming more aroused by choking their partner as they become wealthier.

There is not a clear connection between wealth and arousal from being the *recipient* of blows from a partner in either men or women. Both wealthy and poor men and women get turned on by being struck by a partner at around equal rates.

Part of us wonders if this is a cause or effect thing. Are people who are aroused by hurting others and repulsed by femininity more likely to become wealthy, or is it that people adopt this perspective after becoming wealthy? Maybe this is all just a bleed over from a person's politics.

Oh dear, the wealthy people are already getting back into their helicopters. We imagine they’re off to hunt people for sport.

As the show transitions to its next act, consider that:

* Self-reportedly wealthy women responding to our survey reported a preference for larger penises, with a preference of 7.5 inches on average, whereas the lowest income female respondents to our survey reportedly prefer penises 6.9 inches on average
* According to our survey data, the wealthier a man is, the less likely he is to consume porn with women portrayed as “slutty”
* Our survey results suggest wealthy women are more likely to consume erotic material in which the man is a nerd
* Self-reportedly wealthy male survey respondents were far more likely to report finding the sight of a female crying to be erotic
* The self-reportedly poorer our female survey respondents get, the more likely they are to report feeling aroused by humiliation, with 18% of our poor female survey respondents reporting humiliation to be arousing
* Thoughts of oneself being sexually irresistible were much more of a turn on to our self-reportedly high wealth female study participants, who reported finding it arousing at a rate 300% higher than our poor female participants
* Our survey results imply that wealthy men and women are much more likely to be turned on by themselves (Specifically, they are more likely to include themselves in sexual fantasies)

### The Sexy Beauty Pageant

Get ready for an audience favorite, folks: The sexy beauty pageant. Enjoy the scantily clad men and women making their way into the stadium and give us some guesses as to how you think their confidence in their appearance may affect their arousal pathways.

We see a few of you are somewhat confused by the fact that not all the cast members posing in lingerie and extremely tight briefs meet . . . average standards of beauty. Their presence in this show is a product of how *they* feel about themselves personally; our opinions matter not. The factor we are exploring here is self-assessed attractiveness.

Our survey findings related to self-reported attractiveness are messier than those tied to self-reported wealth and a bit harder to summarize, but in general, our findings imply that women who think they are attractive are much more dominant and unattractive men get much more turned on by being submissive. In addition, unattractive men are much more turned on by violence against women and both unattractive men and women are much more likely to report finding the idea of being raped to be a turn on.

Direct your gaze toward the gentlemen strutting around below; you may think they’re men who like to live boldly, and you’d be right. Men who see themselves as attractive appear to live along extremes, at least when it comes to jealousy. Our male survey respondents who reported to be at the extreme ends of attractiveness and unattractiveness also sorted into the extreme ends of jealousy (either being super jealous or super not jealous . . . not just moderately jealous). We at first suspected that this result came from people who like to answer all questions in an extreme fashion, but ultimately we didn’t see the same pattern among our female survey respondents’ answers or in response to other questions with sliders. Specifically, unattractive women have unusually low levels of jealousy; outside of that there was no correlation

You may also feel that the women milling about below bear a surprising resemblance to the wealthy ladies who just took off in their helicopters, and again, you would be fairly spot on. Attractive females are much more likely to be turned on by acting sexually dominant. On the flip side, unattractive women are very *unlikely* to find acting dominant in a sexual context arousing, with a full 0% of women in the lowest category of self-assessed attractiveness getting turned on by acting dominant in a sexual context and 55% of those in the highest self-assess attractiveness category getting turned on by it (this is one of the largest effects we saw anywhere in our study).

Don’t assume the same for these confident dudes, though: Interestingly, our survey data suggests that being attractive does not track all that strongly to whether or not a *male* gets turned on by acting dominant while being wealthy *does* tie to how much a male is turned on by dominance.

If we were to guess what was happening here, we would say that whether you are a male or a female, you will likely get more turned on by being dominant if you see yourself as a high-value potential partner, and it is common knowledge that we live in a society that judges a female partner’s value more on her attractiveness and a male partner’s value more on his wealth (and not so much his attractiveness). Though perhaps women who are wealthy invest more than their male counterparts in their appearance, so there is more likelihood that women who are wealthy are *also* confident about their appearance, which would blend together the correlations we’ve identified.[[72]](#footnote-72)

Reportedly unattractive men responding to our study were likely to be turned on by acting sexually submissive, with 83% of those in the lowest category of attractiveness getting turned on by being submissive and only 28% of attractive men feeling that way. Self-reported attractiveness showed no correlation to arousal tied to submission in our female study respondents, nor did wealth. This is much harder to explain than the above pattern. Intrepid sexual explorers: What do you suspect is going on?

Furthermore, self-reportedly unattractive men taking our survey are more than twice as likely than men in any other category to report feeling turned on by the idea of hitting their partner, with 33% finding the thought arousing. Attractiveness has no effect on women in this regard, and attractiveness had no effect on how much being hit was a turn on in either men or women.

Our survey data suggests that, whether you are a man or a woman, you will become aroused at the idea of being raped much more if you see yourself as unattractive. Unattractive men taking our survey were much more likely to report finding rape roleplay arousing, with 66% in the lowest level of attractiveness finding it a turn on contrasted with 10% of average men and 14% of hot men. The same is true of females, with 44% of the least attractive category of women reporting arousal at the idea of roleplaying being raped contrasted with 22% for women of average attractiveness.

We see similar results with arousal from the thought of actual rape, with 20% of women in the least attractive category finding it arousing and only 3% of women in the average category finding it arousing. The same is seen among the male respondents to our study, with 50% in the least attractive category finding actual rape arousing and 2% of men in the average category finding actual rape arousing.

Perhaps this correlation is a product of self-confidence. After all, if someone sees themselves as objectionable, sex that they had zero role in initiating might be much more arousing to them, as they wouldn’t feel they are subjecting another person to their (in their mind) objectionable self.

Interestingly, when it comes to being the rapist, our survey data suggests if you are a female and see yourself as attractive, you will find the idea of raping someone else to be much more arousing. Self-reportedly attractive women responding to our survey vastly preferred roleplaying raping someone else, with 22% of women in the most attractive category marking it as a turn on and 17% of those above average reportedly finding it arousing, but almost none of the women in the average or below average categories of attractiveness reporting the idea to be arousing at all.

In contrast, 66% of the self-reportedly least attractive males found the idea of roleplaying raping someone to be arousing, while only 10% of men of average attractiveness did, and 14% of those of high attractiveness did. As for actually raping someone: 49% of self-reportedly unattractive men taking our survey found the idea to be arousing, while not a single average man did, and only 14% of attractive men did. Contrast this with women, where again you see more attractive women getting turned on by being an actual rapist, with 22% in the most attractive category, 3% in the second most attractive, and no women of average or below average attractiveness getting turned on by the idea of actually raping someone. **This effect is dramatic—a *woman* who sees herself as *attractive* is far more likely to get turned on by the idea of raping someone while a *man* who is *unattractive* is much more likely to find the idea arousing.**

Ladies and gentlemen, what do you think these people below find attractive when it comes to masculinity and femininity? Before you venture a guess, consider that you might find the answer to be counterintuitive. As it happens, both females and males who took our study and reported to see themselves as attractive reported feeling more aroused by masculine-acting partners.

While this is a moderate effect in women, it is fairly extreme in men—in fact, not a single man in the below average attractiveness category of attractiveness found masculinity in their partner to be a turn on, while 6% of average attractiveness men found it a turn on and 14% of above-average-looking men found it a turn on. There was no similar or converse effect seen with regard to preferences for femininity in a partner. We assume this preference for masculinity by individuals who see themselves as attractive is a self-confidence effect in which a partner’s masculinity is not as threatening to them.

Oh shucks, the sexy beauty pageant is coming to an end. As you vote for the most *actually* attractive person from the bunch, enjoy some additional fun factors tied to self-assessed hotness:

* Our study suggests that unattractive men get way more turned on by the smells of sex than other men, with 49% of our male survey respondents finding it a turn on, contrasted with 14% of attractive men. The opposite is true of women, with 33% of our survey’s attractive female participants finding the smell of sex a turn on compared to 20% of their self-reportedly unattractive female counterparts.
* Men taking our survey who see themselves as attractive prefer larger breasts on average, with 28% preferring well above average or unnaturally large breasts. This stands in stark contrast to the arousal patterns seen among our self-reportedly wealthy male survey participants, who reported a preference for smaller breasts.
* The self-reported attractiveness of our female survey respondents is not tied to penis size preference, though more attractive women are more likely to say they don’t find penises arousing at all. (Note: Some might see this as mirroring wealthy men not finding breasts attractive.)

### The Dog and Cat Show

The Big Four performance concludes with the perfect mental palate cleanser: A dog and cat show. Do NOT, however, get too distracted by the majestic pupsters and kitties that come prancing out. It’s their *owners* who comprise the major points of fascination in this display.

The surprising correlations between pet ownership and arousal pathways present a delectable example of a random question leading to really fun data. When we put together our survey, we asked questions both about pet ownership and about preference in partner pet ownership (e.g., “Would you prefer to date a partner who owned a dog or one who did not own a dog?”). We didn’t do this because we genuinely cared about the answers, but because we thought fun stats may emerge, like: “Women who prefer a partner with cats like larger penises,” and we were keen to use this kind of vapid data to advertise the book in click bait articles. Sadly, there was no big correlation between pet ownership and breast or penis size preference outside of a small preference for larger penises among women who had dogs. There were, however, massive correlations between cat/dog preferences and many other aspects of sexuality that completely blindsided us.

Gauge the attractiveness of the men and women below. Note how the women striding next to their flouncing canines are rather attractive whereas the male dog owners are . . . less so, and that the pattern reverses with the male and female cat owners showing off their prized felines. Our survey found that more attractive women and less attractive men are drawn to dog ownership, and conversely, more attractive men and less attractive women are likely to have a cat. When it comes to animals that are neither a dog nor a cat, the results are even stronger, with *very* unattractive women likely to own other critters (think: birds, snakes, iguanas, fish, guinea pigs, etc.) and very attractive (but also very poor) men likely to have them. (Keep in mind our attractiveness ratings are self-reported, so you can choose to read attractive as “self-delusional” if you prefer.)

We can see a few of you drooling over those gorgeous male cat owners. Want some dirt on them before you get their digits? Our survey findings suggest that men with cats are much more likely to rate themselves as being jealous. On what might be a good note for you, they are much less likely to find the idea of physically striking their partners to be arousing (three times less likely, actually).

Take a look at that one guy getting his dog to heel like a champ, and the gentleman at the other end of the stadium failing to get his cat out of its carrier. Perhaps their comfort (or lack thereof) with controlling these animals bleeds over to the bedroom: Our dog-owning male survey respondents were slightly more likely to be sexually dominant, while their male cat-owning counterparts were much more likely to be sexually submissive. While the female dog owners responding to our survey were slightly more likely to be turned on by being sexually dominant, they were, unlike their male counterparts, also significantly more likely to be turned on by being sexually submissive.

Here is where this cat and dog show takes a delicious twist: As it happens, intrepid guests, the *real* star of this segment is not the pet owners below, nor is it their pets, but rather *you*! While our survey findings show only moderate correlation between one’s ownership of a dog or cat and various arousal patterns, our findings show a surprisingly high correlation between arousal patterns and preferences for partner pet ownership.

That’s right, ladies and gentlemen: The way you, personally, feel about those dog and cat owners below may say more about your sexual proclivities than their pet ownership does. We suspect this is because actual pet ownership is modified by a bunch of external factors, such as where a person lives or how much they move, whereas preference in partner ownership is more of a “pure” expression—unencumbered by static tied to one's lifestyle—of whether a person is a dog or cat person.

**Men Who Prefer a Partner with a Cat**

If you have a cat and are targeting male partners, you are likely to attract significantly more submissive partners. This is true across almost every metric of submission, be it how much they get turned on by choking someone during sex (9% to 36%), striking their partner during sex (4% to 20%), roleplaying getting raped (12% to 5%), finding the thought of owning someone arousing (13% to 21%), getting turned on by acting submissive (35% to 21%), or getting turned on by acting dominant (58% to 73%).[[73]](#footnote-73)

So, if you want a fellow to boss around, grab a cat or two and start working them into the sexy selfies you post on your online dating profiles.

**Applicability of study results is so cool!**

Some other weird findings here:

* Men who want a partner with a cat are way less likely to find pregnant women more attractive (0% to 10%)
* They (relatively) really like the smell of sex (40% to 20%)
* They are much more likely to enjoy roleplaying their partner being related to them (18% to 10%)
* They are much more likely to be the jealous type (23% to 15%)
* They prefer women with significantly larger breasts
* They are much more likely to enjoy watching their partner have sex with someone else 14% to 6% (those who were indifferent in this case were 16% here)

**Men Who Prefer a Partner with a Dog**

Our survey data suggests that if you are trying to pick up a guy and you own a dog, you are much more likely to secure a dominant guy (78% to 39%), but not less likely to secure a submissive guy (34% to 22%) (remember—a person can be aroused by both dominance *and* submission). You are also much more likely to secure an aggressively dominant guy, as the arousal rates tied to things like roleplaying as a rapist (22% to 12%), the thought of actually raping someone (17% to 5%), and choking a partner (31% to 11%) are in most cases more than twice as high in men who prefer partners with dogs.

Some other weird findings here:

* Men who want a partner with a dog are way more likely to be turned on by being restrained (31% to 11%)
* In contrast to those who want a partner with a cat, they are much less likely to find pretending their partners are related to them to be arousing (4% to 11%)
* They also prefer larger breasts (those with a preference for no pet ownership prefer smaller breasts)
* They, same as cat preference men, find the smell of sex arousing at much higher rates (33% to 16%)

**Women Who Prefer a Partner with a Cat**

Inconveniently, women who prefer a partner who owns a cat have preferences similar to those of men who want a partner with a cat. Both groups in this case are looking for someone who is aggressively dominant, while tending toward being “violently submissive,” hence cat people appear to (statistically speaking) make poor matches for fellow cat people.

For example, they are much more likely to get turned on by being submissive (85% to 57%), they are way more likely to be aroused by being restrained (61% to 34%), they are less likely to get turned on by striking a partner (8% to 15%), more likely to be turned on by being struck (38% to 26%), much more likely to be turned on by being choked (41% to 23%), and much more likely to be turned on by the thought of being owned by someone ( 41% to 15%).

Some other weird findings here:

* Women preferring partners who own cats are also much more into BDSM, with almost half having participated in it as a sub (48% to 19%) and a sizable number having participated in it as a dom as well (19% to 8%).
* While they are generally much more aroused by submission, they are also slightly more likely to be aroused by being dominant as well (47% to 37%)
* They also are more likely to aroused by the smells associated with sex (42% to 30%)
* They are slightly less likely to enjoy the thought of roleplaying a partner being related to them (5% to 8%)
* Like men with the cat preference they were also way more likely to be jealous (37% 10%)

Across genders, there is definitely a common profile for people who prefer a partner who owns a cat. The two things that don’t carry across genders is the cat-liking males’ predilections for incest play (5% to 8%) and watching their partner have sex with other people. The consistency across genders and distinctness of sexual preferences here is uniquely remarkable and adds credence to our perception that there is something actually going on with this pet owner preference effect.

**Women Who Prefer a Partner with a Dog**

Both men and women who took our survey and expressed a preference for dog owners bear striking similarities across the gender gap, but in this case, the cross-gender difference is better matched. As with males who prefer dog owners, we see an increase in arousal from dominance (53% to 33%). That said, were in males, rates of submission were simply unchanged, arousal from submission in females who prefer female dog owners’ skyrockets—especially when it comes to “violent submission” (such as roleplay getting raped 19% to 5% and arousal from loss of agency 24% to 6%).

The only thing that stands out as unique between genders is that female lovers of dog owners show a distinct preference for watching their partner have sex with someone else (19% to 11%). Remember that male cat lovers feature this preference as well, whereas male dog lovers are strongly against it, and female cat lovers were *lightly* against it. We are not sure what is going on here as nothing else had an effect on these numbers, and yet we see it all over the place in pet type preference and the effects of said preference inverse across genders.

Weird findings here:

* We see another case of individuals in this category being more likely to be aroused by the smells associated with sex (43% of women who prefer a partner with a dog versus 18% in our overall survey population). What is going on here? Why do we see this trend across all types of pet ownership? Our guess is people who find strong odors repugnant are more likely to find a partner who owns any kind of pet to be a bad match.

### What the Hell Did I Just Watch?

That was a weird show, right? Why do you think these factors stood out so boldly in our data? To us, it seems pretty apparent when you break them down into two categories: Politics and pets being the first, and wealth and attractiveness being the second.

Wealth and attractiveness factors are likely products of perceived value on the dating market and/or perceived position in a social hierarchy. We see similar, if slightly less pronounced, correlations from any factor that increases a person's position within their social hierarchy (friend group size, position at work, etc.). However, these confidence-boosting factors also tangibly increase a person's value on the dating market, so it is hard to break out what the exact cause is (confidence or perceived desirability).

That said, we think we have this figured out: Attractiveness increases a woman’s odds of becoming aroused by acting dominant more so than it increases a male’s odds. Wealth increases males’ arousal from dominance more than it increases females’ arousal from dominance. It appears to be a person's self-assessed value on the dating market that drives arousal from dominance.

At first glance, it may seem as though confidence is at play, but if these correlations were being driven by confidence, wealth and attractiveness would theoretically affect men and women equally on these fronts. (This of course assumes our participants believe wealth increases a man’s value on the dating market more than a woman’s and attractiveness increases a woman's value on the dating market more than a man’s.)

This conclusion is reinforced by our survey data indicating a person's self-perception of their position within their social hierarchy has less of an effect on how aroused they become by dominance than wealth or attractiveness did.

Long story short, the primary driver behind arousal from dominance (versus submission) appears to be how much of a “catch” a person thinks they are. The more one sees oneself as a catch, the more one is aroused by acting dominant.

It could be argued that people who are more aroused by dominance are more likely to acquire wealth, and thus a proclivity towards dominance may drive wealth acquisition rather than the other way around. We don’t think this is the case and instead suspect the causal nexus involves wealth and attractiveness influencing arousal pathways, not arousal pathways affecting wealth and attractiveness. Attractiveness is not a choice. While someone could reasonably argue that certain arousal pathways could increase a person’s odds of accumulating wealth, it is harder to argue that certain arousal pathways increase your attractiveness (though we were, admittedly, only able to gauge self-reported attractiveness, which might be affected by a proclivity towards dominance).

As for politics and pet preference: Though our survey was extremely detailed and while it dove into almost every nuanced aspect of our subjects’ lives, we did not ask much about personal opinions and worldviews.

We developed this study thinking that arousal pathways are a product of things that happen to us in life—specifically early in our lives—so we didn’t think to ask much about the things people *choose* to believe. Only our questions related to politics and pet preference touched on opinions. It ultimately makes sense that our beliefs would have a larger impact on our arousal pathways than serendipitous conditions. Still, we were surprised to learn this, and if we were the types to ever write a book on the same subject twice, this is something we would dig into a lot more next time.

We remain somewhat baffled by the trends associated with politics and pet preferences. That said, lots of research shows political beliefs are, in part, genetically inherited[[74]](#footnote-74) and tied to more basic instincts like those associated with risk tolerance. We wonder if political leanings might be tied to a heritable behavior pattern in which a single common factor is influencing both politics and sexual expression, but unfortunately lack the data required to investigate such a theory. We can say with some confidence that we do not believe it is a person’s political beliefs that influence their sexual expression. Were that the case, one wouldn’t see conservative males much more likely than liberals to find the idea of their partner sleeping with someone else to be arousing, given that “cuck” is a popular conservative insult for liberal males.

## Why Do People Participate in BDSM?

Beloved informational explorers, welcome to the close of our tour. Please follow us out of the replica colosseum, exiting through the BDSM-themed gift shop. While some of you have already picked up a few BDSM-themed souvenirs along the way, we would be remiss in neglecting to give you one final shopportunity.

You may be wondering why our gift shop is BDSM-themed. When parsing through the data, we made one final BDSM-themed discovery that we would like to share with you.

While we didn’t expect a perfect overlap between erotic material consumption and the actual acting out of various sexual acts, we did expect the same demographic factors to correlate with similar changes in each. For example, if being wealthy made a man more likely to get turned on by acting dominant, we hypothesized that wealth would also increase a man’s probability of being a dom in a BDSM context. This, however, is not what our survey results revealed.

Our survey results suggest that, generally speaking, **factors that increase a person's value on the sexual marketplace—be they male or female—typically cause an increase in that person’s rates of arousal from acting dominant. *However*, this trend *does not carry over into BDSM participation*.**

Our data indicated, as we expected, that BDSM subs primarily participate in BDSM to masturbate the arousal pathway associated with submission. Factors increasing a person's likelihood to be aroused by submission almost always correlate with a person’s participation in BDSM as a sub in our data.

This was not at all the case with doms. Factors that increased arousal from dominance often *decreased* the odds of one acting as a dom in the context of BDSM. This confused the hell out of us at first. Why would factors causing people to be more aroused by acting dominant in a sexual context not also correlate highly with people assuming the role of a dom in BDSM contexts?

After looking at the data again and again and again, we eventually noticed a pattern: When the thing that increases a person's value on the sexual marketplace also increases the dominance they experience daily (as is the case with wealth, a job with great authority, a position at the top of one’s social hierarchy, etc.), rates of participation in BDSM as a dom either didn’t rise dramatically or *dropped,* while rates of arousal from acting dominant rose.

Check out these store displays for some examples. See that placard under the male mannequin with the expensive three piece suit and Rolex? While our survey results suggest that 71% of men with high-power positions at work get turned on by acting dominant in a sexual context (in contrast to only 53% of those that are in low power positions), our results also suggest that high power men assume the dominant role in BDSM contexts at a rate 17% rate, which stands in stark contrast with that of men with less power at work—a robust 29% of men in lower professional ranks assume the dominant role in BDSM play.

At this point we are sure you won’t be surprised to know that our survey data suggests that women at the top of their social hierarchies are much more likely to be aroused by acting dominant than other women. You also won’t be surprised to hear that men low in their social hierarchies are more likely to be aroused by acting submissive in a sexual context. However, we may succeed in raising a few eyebrows when we say our data indicates that a woman at the bottom of her social hierarchy is far more likely to assume a dominant role in BDSM contexts, and men at the bottom of their social hierarchies are no less likely to assume dominant roles in a BDSM context than their king-of-the-hill counterparts, despite both being much less likely to be aroused by acting dominant.

Our data also suggests that women who have larger friend groups are less likely to assume the role of a dom in BDSM play, while nevertheless receiving more arousal by acting dominant.

Finally, our data suggests that men born in families they perceived as being at the bottom of the social hierarchy prefer to play the dom at almost twice the rate in BDSM scenarios (18% vs 10%). While females born into high-power families prefer to be a dom at a significantly higher rate than females of low-power families (29% to 10%), they also prefer to assume the role of the sub at much higher rates (57% to 29%). It appears that being born into a high-status family as a woman just increases BDSM participation across the board and not specifically as a dom or a sub.

Is it not *fascinating* that even those who are more aroused by dominance in many cases aren’t assuming the dominant role in BDSM contexts? While on the surface this finding seems surprising, it makes sense that those who experience dominance in their daily lives would not need to resort to BDSM to masturbate dominance arousal pathways. However, in a society that tells people that indulging in subservience in public is not a laudable behavior, it makes sense that all categories of submissive people would be drawn to BDSM, as there are not many instances in which the submission pathway will be masturbated through the course of a normal day.

We could be wrong about all this. **It could just be that the factors associated with being aroused by acting dominant in a sexual context—attractiveness, wealth, large friend groups, power in an office environment, etc.—also vastly increase the social and self-image “cost” of participating in a marginalized community like the BDSM community.** This is something the data actually indicates might be true.

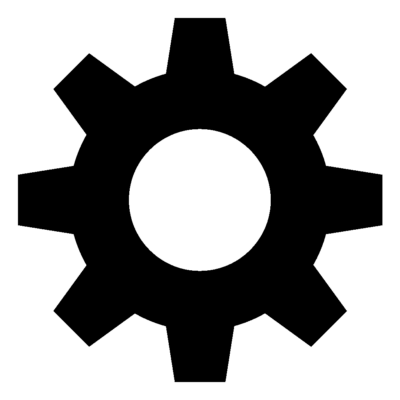
Bear with us here, because there is no concise way to explain this: Recall that our study found that men in a high position of power at work assume the role of a dom in a BDSM context at a rate of 17% versus 29% of their low-power male counterparts. Men with high-power jobs reported assuming the position of a sub at a rate of 8%, versus 18% of men with low-power jobs, suggesting that when they acted in a BDSM context, they played the dom 283% more often than when they were a sub—whereas the men of low power at work were only a dom at 161% the rate they were a sub. This indicates that when such individuals *do* participate in BDSM, they do so proportionally as a dom at a rate you would expect given how much more naturally aroused by dominance they are. This higher participation in dominant roles by the professionally high-power men who *do* participate in BDSM undermines the theory that they are more likely to have their dominance arousal pathway fulfilled by their daily life. Instead, these stats reinforce the theory that professionally high-power men are just participating in BDSM less overall.

# Remembering the Journey: A Recap

Thank you for joining us on this whirlwind review of our informal research. We can tell from the dizzy and moderately nauseous looks on some of your faces that we presented a lot to digest.

As you gather your shopping bags and collect a complimentary souvenir thong on the way out, please also grab hold of this huge caveat: This is not peer-reviewed research. This is armchair research—or to put it more flatteringly, “gentleman science.” We are massive advocates of recreational research as a means of sanity checking personal theories and filling in gaps in one’s knowledge of the world. If you disagree with anything we think we found in our survey, we heartily encourage you in the strongest possible terms to do your own research. We recommend Positly.com and GuidedTrack.com as great tools for conducting your own small-scale research studies over something like Survey Monkey. Should you ultimately give this a try, we would love to help you share your findings.

If you read this far in the supplementary section of the book . . . why? We never intended you to read through all this, our sane readers stopped at the beginning of the supplementary section. Especially given that you are a deep cut kind of reader, **we strongly encourage you to leave a short review on Amazon**. Putting these books together is a pain in the butt and we give away all the money they make. The reviews people generously take time to post both make us feel good and lower what we have to pay in advertising to get this content out there to other people (books with more reviews and better reviews enjoy a higher conversion rate from ads). If you want to really be helpful, we are always looking for people to help edit our upcoming books—just drop us an email at [Hello@Pragmatist.Guide](mailto:Hello@Pragmatist.Guide).



1. Not all of the professional sex therapists we contacted gave us detailed feedback and none reviewed content added in the final stages of editing. [↑](#footnote-ref-1)
2. See “Cultural Drift and Social Change” in *Current Anthropology* for a discussion of cultural drift and the manner in which it accelerates within small isolated groups. [↑](#footnote-ref-2)
3. One of the writers of the book is LGBTQIA, as are a number of its editors and contributors. We like to think that hasn’t impacted our objectivity and thus need not be mentioned, (it was not in the original print of the book). However, a number of this book's negative reviews specifically called out what the reader assumed to be non-LGBTQIA individuals writing on the topic of sexuality. While we prefer that our ideas be judged on their own merit, we feel obligated to mention this, as negative reviews can severely impact the reach of this book. If it annoys you that people do this, please drop us a positive review. [↑](#footnote-ref-3)
4. We are in no way comparing the daily experiences or levels of oppression that these communities historically faced and currently endure. LGBT people have been and are being killed. We only wish to highlight that cultural drift has affected each group. [↑](#footnote-ref-4)
5. When you look at other research, like a study of 2,300 people in the UK showing 75% to have a kink, our number may seem high. This is because our survey does not explore kinks per se, but rather any turn on not tied to penis-in-vagina sex or oral sex. [↑](#footnote-ref-5)
6. OK, that isn’t entirely true—we *did* find one potential pathway through which parenting might ultimately affect adult sexuality, but the effects are fairly light and are more likely to be signs of correlation rather than causation. For more info, see the chapter: “Strict Fathers” on page 442. [↑](#footnote-ref-6)
7. See: “Psychological Barriers to Evolutionary Psychology: Ideological Bias and Coalitional Adaptations” in *Archives of Scientific Psychology* [↑](#footnote-ref-7)
8. For more on the replication crisis, check out Muthukrishna, M, and J Henrich’s article “A problem in theory” in *Nature Human Behavior*. [↑](#footnote-ref-8)
9. The words fetish, kink, and paraphilia are synonyms when used in the vernacular (and we generally try to write our books in the vernacular), but if you really want to get technical, here is how they differ:

   **Kink**: Arousal tied to a non-traditional or otherwise socially taboo stimulus. This arousal is additive to other sources of arousal.  
   **Fetish**: A sexual fixation on a specific object or act to the extent that sexual gratification is impossible (or nearly impossible) without engaging said object or act. (An alternate, commonly used definition of fetish includes all intense arousal from non-human objects and non-genital body parts.)  
   **Paraphilia**: A fetish that has escalated to a point at which it has negative life consequences. (Think of this as the “clinical” term for a fetish.) [↑](#footnote-ref-9)
10. There is a mirror phenomenon in which humans believe those they find arousing are also intrinsically more moral—this is typically referred to as the Halo Effect. [↑](#footnote-ref-10)
11. Object sexuality, the romantic attraction to specific structures or architectural elements, is classified as a paraphilia when it really shouldn't be. Accounts from those who have object sexuality almost exclusively focus on romantic or intimate feelings for structures—these individuals’ feelings are rarely erotic in nature. Meaning this is not an abnormality in an arousal pathway but rather one in a pair bonding pathway which is likely a separate neurological system as discussed above. [↑](#footnote-ref-11)
12. You will notice that while the word bisexual was obviously used in the research we are citing here, we do our best to avoid it and will continue to do so throughout the book. The term “bisexual” has a few competing definitions that can be intensely personal. Some define bisexuality as attraction to more than one gender while others require this definition to include an attraction to one’s own gender—recommending the word polysexual to describe attraction to multiple genders but not necessarily one’s own. Neither of these definitions necessarily includes all people who have at least an attraction to males and females but not necessarily any other gender identity (which is what bisexual used to mean). People who would have checked the word “bi” on a survey in the past may identify as anything from bisexual to pansexual, omnisexual, or polysexual. [↑](#footnote-ref-12)
13. To not beat around the bush: The most vocal of these groups are a few extremist sub-factions of the “Gender Critical Radical Feminists” also known as TERFs by their detractors (to highlight that they don’t believe trans women are women). This is also not an argument used in the more mainstream factions of the gender critical movement. [↑](#footnote-ref-13)
14. Full disclosure: One of the authors of this book is diagnosed with autism spectrum disorder. [↑](#footnote-ref-14)
15. See “Single dose testosterone administration increases men’s facial femininity preference in a Chinese population” in *Psychoneuroendocrinology* [↑](#footnote-ref-15)
16. Well, one would call them asexual unless one knew about the term *apothisexual*, but we don’t think having a billion words for ultra-specific sexualities is super helpful either. Yes, it helps people feel like they are part of a wider community but it also pigeonholes people who deviate from the existing lexicon and hinders their ability to communicate their sexuality to other people. [↑](#footnote-ref-16)
17. Of course, gayness might have evolved multiple times for multiple reasons. Moreover, there is some evidence from anthropological research that gay people do care for nephews and nieces at higher rates, showing there could be some selective pressure here, but that is as far as the evidence for this hypothesis goes. [↑](#footnote-ref-17)
18. In current terminology omnisexuals are individuals that experience active attraction to all genders (this term is used to contrast with the term pansexual, which is often used to indicate a lack of aversion to any gender and is more common in females who fall toward the center of the Kinsey scale). [↑](#footnote-ref-18)
19. Pansexual = Someone whose arousal pathways are not influenced by the gender of a target. [↑](#footnote-ref-19)
20. There are still cases of women who feel no arousal toward anything at all. These cases just make up the minority of women who identify as asexual. Think of the concept of asexuality being akin to that of being colorblind: Most people who are colorblind can actually see most colors, but a minority of colorblind people with achromatopsia actually fit the etymology of the term “colorblind” and can only see in black and white but they are so rare that the term colorblind rarely applies to them even though etymologically it should apply exclusively to them. [↑](#footnote-ref-20)
21. Bukkake falls under this category if you assume that arousal from sperm is a gender detection system. It could be that arousal from sperm comes entirely from the societal notion that being covered in it is shorthand for being dominated and thus arousal from bukkake is really arousal from submission. This could be teased out be seeing if it appears cross culturally. [↑](#footnote-ref-21)
22. In modern parlance most of these people would now be called “omnisexual” which is used to describe active sexual attraction to all genders (as opposed to pansexual, which is seen as being more gender blind). [↑](#footnote-ref-22)
23. Our primary ambassador from the looner community introduced us to this store run for looners called [balloons-united.com](https://www.balloons-united.com/) which delights us to no end and is well worth a visit. [↑](#footnote-ref-23)
24. As a cool aside, great apes have been observed laughing when people perform magic tricks for them. This would fit our schema. Magic tricks would kind of make sense within a great ape’s worldview, but would still be surprising, so they would want to see the trick performed again to fully understand it. To us, this indicates that our hominid ancestors likely laughed as well. [↑](#footnote-ref-24)
25. This was a checkbox-style question, so participants were able to select multiple responses. [↑](#footnote-ref-25)
26. We did find that strict fathers may have an effect, but the effect is fairly small and can be explained by other factors. [↑](#footnote-ref-26)
27. For more info on this, see the literature review: “Women's Erotic Rape Fantasies: An Evaluation of Theory and Research” in the *Journal of Sex Research.* [↑](#footnote-ref-27)
28. This evidence could also imply that humans were in the process of transitioning in the opposite direction as well, but given that we know the end result of this period (recorded history) was largely monogamous or polygynous showing a strong expectation of female fidelity and that our closest relatives, chimps, have little expectation of fidelity, we can pretty safely assume this was not the case. [↑](#footnote-ref-28)
29. Well—OK—we can think of one: Women who evolved this trait may have been living in a polyamorous society and trading sex with males for resources, securing resources from less genetically attractive (but otherwise attractive in terms of available time and/or resources) males when they could not get pregnant, but in light of the morphology evidence discussed above, we don’t think this was the case. [↑](#footnote-ref-29)
30. Some ancient Greek quotes about women for context: “A woman who travels outside her house should be old enough that people ask whose mother she is, not whose wife she is,” “A man who teaches a woman to write should know that he is providing poison to an asp,” and “Zeus made wives as his worst pestilence and fettered us in bonds unbreakable.” [↑](#footnote-ref-30)
31. In this particular discussion, we assume humans primarily lived in polygynous societies for the reasons discussed above. Thus, women had “primary” partners and were able to “cheat” though both concepts probably would have had vastly different meanings to these historic cultures and certainly would not have had their current moral baggage. We merely use these words as a shorthand. [↑](#footnote-ref-31)
32. Part of why this surprised us is other research has indicated that doms actually report higher levels of happiness and wellbeing than subs and that participating in BDSM even lowers their cortisol levels (presumably lowering their stress levels in general). [↑](#footnote-ref-32)
33. Note: This is in reference to practices like cross dressing as a cis person and not in reference to being trans. [↑](#footnote-ref-33)
34. Interesting languages that evolved independently do not show much consistency in how they gender inanimate objects. This is a good demonstration of just how affected by our culture—and not inborn—our “gender packages” happen to be. [↑](#footnote-ref-34)
35. This phenomenon isn’t unique to gender. Sometimes a concept or way of looking at the world is so boldly carved into our subconscious that it spills out into our perception of reality. For example, humans also have a “pre-programed” system for reading agency and emotion in other individuals. This system is so deeply ingrained that across cultures, humans will accidentally ascribe agency and emotions to inanimate objects and random patterns (like weather or clouds). Some neurodivergencies even cause alterations in how this system expresses itself (like the phenomenon of magical thinking in schizophrenia, a term for ascribing agency and intentionality to patterns), so it would be weird to not see neurodivergencies affect the gender system. [↑](#footnote-ref-35)
36. We suspect this is why toddlers often become so fixated on the topic of gender and act out simplistic gendered behavior. This can be thought of as the gender version of babbling. On this topic, it would be fascinating to see if these systems could be hijacked in toddlers to identify other social roles with their gender systems. [↑](#footnote-ref-36)
37. If you are interested in reading more on this front, check out "Transvestism: A Survey of 1032 Cross-Dressers" by Richard F. Docter & Virginia Prince published in the *Archives of Sexual Behavior.* [↑](#footnote-ref-37)
38. Here we need to note that some organizations lump cross-dressing individuals under the “trans umbrella,” so in that sense cross-dressers would be “trans” but not “trans men” or “trans women.” Regardless of nomenclature, wanting to act out the gender display of another gender is not the same as being a gender different from the sex you were assigned at birth, so it is important to establish that both of these groups exist as distinct behavioral sets. This is another one of those cases of groups forming around the social prejudices aligned against them rather than similar drives. [↑](#footnote-ref-38)
39. I, Simone, am a woman, yet I reacted similarly to the study’s male participants when looking at the study’s various pictures, so I doubt this is a strictly male phenomenon. Alas, we haven’t yet come across studies investigating female reactions to images of men exhibiting various configurations of provocative dress and posture. [↑](#footnote-ref-39)
40. Do not assume that any of the above kinks are more common in the trans population. The aforementioned kinks are indeed more common among certain groups, but not trans people per se—rather, they are more common among the politically conservative and wealthy. [↑](#footnote-ref-40)
41. Technically, agender people like us (people who do not have an attachment to any gender identity) are considered non-binary and sometimes non-binary people are considered trans. In some circles, our statement could therefore be read like: “As trans people, we have no idea what it feels like to be trans.” But in the same way a straight person has a better understanding than a “totally asexual” person of what a gay person is describing when they talk about being turned on by someone, a cisgender person has a better understanding of what it feels like to be a trans man or woman than we do.

    This inability to even attempt to model what it feels like to care about our gender is one of the reasons we keep this section so short. [↑](#footnote-ref-41)
42. For some examples see: *I’m a Transgender Woman Because of Video Games* or *A video game showed me who I really am* and read the comments from people who had similar experiences. [↑](#footnote-ref-42)
43. Given this data, we cannot help but wonder if the reason the trans community has taken longer to gain acceptance than the gay community is in part because people with soft-gender expressions are far more prevalent than people with low libidos. [↑](#footnote-ref-43)
44. As is the case with most of this book, we asked some community members to “sanity check” our writing, as we can’t say much about being trans from firsthand experience. We were advised to mention the role gender dysphoria plays in being trans, but ultimately chose to sidestep the subject as there is some debate within the trans community as to whether gender dysphoria is necessary to be trans. The discrepancy in consensus strikes us as a question of definition or ideology, placing it outside the scope of this book. We are more interested in the underling “brain stuff” and not linguistic stuff. All we can say is that many people who identify as trans experience gender dysphoria while others do not. [↑](#footnote-ref-44)
45. Spanking became such a popular mental proxy for submission among boys who grew up at English boarding schools it become known as the “English vice” during the Victorian era. [↑](#footnote-ref-45)
46. See “The pleasure is momentary…the expense damnable?: The influence of pornography on rape and sexual assault” [↑](#footnote-ref-46)
47. See: “Is Pornography Really about ‘Making Hate to Women’? Pornography Users Hold More Gender Egalitarian Attitudes Than Nonusers in a Representative American Sample.” [↑](#footnote-ref-47)
48. See: “Pornography reinforces sexist attitudes among a subgroup of heterosexuals.” [↑](#footnote-ref-48)
49. Because porn affects opioid pathways, it will cause the parts of the brain that “light up” when exposed to potential opioids to activate when looking at porn. This has been shown in some studies. [↑](#footnote-ref-49)
50. If you do believe you are addicted to masturbation and it is having a negative effect on your life, an interesting study published in the Mayo Clinic Proceedings suggests through a case study that Naltrexone, an opioid antagonist, could be an effective treatment. [↑](#footnote-ref-50)
51. This quote is from an interview of Andrew L. Whitehead of Clemson University in *PsyPost* [↑](#footnote-ref-51)
52. NRE stands for new relationship energy. It’s the intense feeling one gets about a partner early in a relationship. The term is most often used in the poly community. [↑](#footnote-ref-52)
53. We are open to the possibility that NRE is comprised of a few different emotional states. We broadly define these states as an involuntary fixation on another person combined with a strong emotional reward from increased closeness with them that is not based solely on sexual interest, love, or intellectual interest. [↑](#footnote-ref-53)
54. It is very interesting that while our sexuality is largely unalterable through pharmacological intervention, our amoralities are highly influenceable by pharmaceuticals. Not only can drugs significantly change what incites the feeling of love in an individual in the short term but some substances, like LSD, have been shown to have long-term effects on whether or not certain concepts are likely to insight the feeling of love. [↑](#footnote-ref-54)
55. Nevertheless, the NRE system—the force driving us to have crushes on people—might be influenced by gender preference, which could help to explain the origin of concepts like heteroromantic and homoromantic, as the NRE system is bundled with the amorality system in a person’s romantic orientation. [↑](#footnote-ref-55)
56. If gender is a big part of “who a person is” in your conception of the world, it *can* impact your amorality. [↑](#footnote-ref-56)
57. There is one common exception: Some individuals seem to have the thresholds required to fall in love with a target dramatically lowered by their sexual interest in a target while for others this is irrelevant. Functionally, this can make someone “gay” or “straight” in amorality even if this pattern is not caused by an amoural attraction to a specific gender.  
    This is another one of those circumstances in which an obsession with gender causes society to miss a blindingly obvious pattern in the data—that the systems involved with love cannot read the gender of a target but that through other systems, gender can influence love. The system is likely gender blind because it first evolved to form pair bonds with one’s children and the gender of a child would have been irrelevant. [↑](#footnote-ref-57)
58. Evidence indicating the average person’s underlying romantic proclivities are panromantic does not proclaim “panromantic” to be the only “amoural identity” nor does it invalidate other romantic identities. As with sexual identities, our romantic identities are the patterns cast upon a wall when the light of our underlying romantic proclivities shines through the stained glass windows of our surrounding cultures and life experiences. The fact that the same sun shines upon most churches does not invalidate the patterns created by the unique stained glass windows they feature. [↑](#footnote-ref-58)
59. We suspect that object sexuality, which leads some to form relationships with objects like cars or monuments, describes not a mix-up in someone’s sexual system, but rather a mix-up in a person’s amourality system. This is one of the few exceptions in which people are apparently only able to feel love for a narrow set of things—with the divergence in this system being that one is capable of forming intense love for inanimate objects, something the average brain appears to block (with the exception of childhood comfort items like blankets and stuffed animals). [↑](#footnote-ref-59)
60. For more information on this, see: “The gendering of language: A comparison of gender equality in countries with gendered, natural gender, and genderless languages” in *Sex Roles.* [↑](#footnote-ref-60)
61. Amorality can be pharmacologically altered with some hallucinogens, so this may be a bad example. [↑](#footnote-ref-61)
62. We just made up that name to be the most generic sounding fursona we could think of; sorry if it is a real person’s fursona. [↑](#footnote-ref-62)
63. See Personal Relationships or *Misogyny on Twitter* by Demosand *Derogation of Competitors* in the Journal of Social and Personal Relationships [↑](#footnote-ref-63)
64. ”Trashy” in our study was defined as “someone whose portrayal is aggressively aimed at demonstrating a lack of appropriate demeanor.” We would prefer not to use words colloquially intended to be derogatory, like “trashy” and “slutty,” but such words are common in arousal patterns and the naming of pornographic material sub-genres, thus a failure to use these terms would compromise our data. [↑](#footnote-ref-64)
65. We assure you, ladies and gentlemen, that we would prefer not to use the word “slutty,” but this is how erotic material is labeled, and we run the risk of compromising our data when we make efforts to find a roundabout way of describing this genre of porn and erotic material in our surveys. [↑](#footnote-ref-65)
66. On the back of the book, we claim that the number of people interested in parent-child roleplay is around the same as the Black population in the US. We drew this conclusion by looking at people interested in either father roleplay OR mother roleplay: 12.5%. The US Black population is 12.7%. [↑](#footnote-ref-66)
67. For more information on this phenomenon, see the paper: *Not Threat, But Threatening: Potential Causes and Consequences of Gay Innumeracy,* which found overestimation of the size of the gay population to be common among groups that see them as a threat. A more updated breakdown indicates this phenomenon isn’t subsiding—see the Gallup article: *Americans Still Greatly Overestimate U.S. Gay Population.* [↑](#footnote-ref-67)
68. In our survey we defined bisexual in the vernacular (arousal from at least males and females), as explaining the more complicated new variant definitions would increase the length of an already very long survey. [↑](#footnote-ref-68)
69. As these are self-reported libido levels, it *could* be that conservatives contextualize a lower level of libido as being abnormal, but our other data does not support the theory. For example, 54% of conservative females have sex more than once a week versus 47% of liberal ladies, and 56% of conservative men had sex more than once a week versus 41% of their liberal counterparts.

    Maybe sex is a bad indicator, right? If we look at masturbation more frequently than three times a week, we find 80% conservative men versus 76% liberal men fall into that category, with the hiccup being we see this case in 15% of conservative women vs 29% of liberal women. [↑](#footnote-ref-69)
70. We’re referring only to the average breast size of partners. Political leaning *did* track with one difference in breast size preference: specifically, appetite for porn with giant breasts, which both conservative men and women reported consuming at higher frequency than their liberal peers in our study. [↑](#footnote-ref-70)
71. A complication to this trend is women in the below-average category of wealth get turned on by seeing themselves as a man at a higher rate as well (7.7%). While this is only slightly higher than average, it still throws a wrench in the nice pattern we were seeing. [↑](#footnote-ref-71)
72. Malcolm here: As a guy, I had trouble understanding this, so here is how Simone explained it to me: “I think many women feel unpretty because they lack the funds necessary to pay for services that they believe make them pretty (or stylists who make them feel pretty through sheer flattery).” [↑](#footnote-ref-72)
73. We tried a ton of ways of showing the data in this section and couldn’t find one that was comfortably succinct—we tried laying out all the data systematically and it was immensely boring. Thus, we have decided it is best to stick with a purely narrative approach and cite stats when relevant, with the first stat being X gender who prefers partners with Y pet and the second being X gender who explicitly prefers partners without Y pet—we will not include the numbers of indifferent individuals unless they add color to the data, as they make it harder to read. We know it still sucks to read but it is the best of the various ways of laying out the data and this is where we landed. [↑](#footnote-ref-73)
74. See “Genetic Influences on Political Ideologies: Twin Analyses of 19 Measures of Political Ideologies from Five Democracies and Genome-Wide Findings from Three Populations in Behavior Genetics” for one of these studies. [↑](#footnote-ref-74)