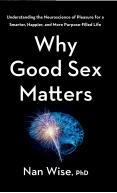
Excerpt from "Why Good Sex Matters" by Nan Wise, Ph.D. available at www.AskDoctorNan.com and where all books are sold



# Introduction

hy do you study sex?" It's winter 2012. Having spent countless hours over the previous three years examining brain imaging studies that involve women donating their orgasms to science, including piloting my own study with endless hours in an fMRI machine, this isn't the first time I've heard this question. I have presented my pilot data to the Society for Neuroscience at their yearly gathering of twenty-thousand-plus brain nerds featuring a dozen or so special lectures given by the rock stars at the cutting edge of the hottest neuroscience topics. Although other neuroscientists have conducted studies on how the human brain responds to sexual arousal, only two labs have been crazy enough to go all the way and study the brain on the big "O." The media loved the results of my team's study, which showed that orgasm was associated with increased blood flow - and therefore more oxygen - to more than eighty regions of the brain. "Have an orgasm instead of doing a crossword," one outlet wrote, "It's better for your brain, says scientist." You would think that people would know more about the sexual brain in general and orgasm in particular by this point, but that is not the case.

The "female brain orgasm video," as it has come to be known, had so many hits it crashed the hosting website and went viral (you can Google it for a view). No doubt this video is what got the attention of the *Nightline* producers and why Juju Chang was now waiting outside my lab, ready to roll her cameras.

I am mildly agitated at the prospect of having to stop everything to make arrangements for the crew to witness one of our studies, but I am also eager to do the show because I believe we have an obligation to validate the importance of human sexuality — and this gives us the opportunity to show our work to a large national audience.

So, before we start up the fMRI, I think about how to respond to Juju's question, "Why do you study sex?"

This is the same question that I have been asked since I first got into the sex research biz. I've been asked this question in my own psychology department by colleagues who seem uncomfortable with our work and who have expressed the opinion that our participants must be "exhibitionists" — the same colleagues who on occasion let little comments, like "Hey, sex maniac," slip when they bump into me in the hall. It's the same question I am always answering to justify our work. But, in a way, this question is also my own — it's what has been nagging at my curiosity over the past thirty years, from when I first began working as a psychotherapist, then a sex therapist, and now as a neuroscientist. I've been investigating this question in all sorts of settings because it raises so many issues about happiness, health, well-being, and pleasure, and, yes, about sex itself. Indeed, that's why I am writing the book that you now hold in your hands.

The scan fortunately goes well in spite of all the distractions, yielding

yet one more orgasm to add to my data. At the end of the clip, there I am in my lab coat, giving my final sound bite. "We live in a country where people are really obsessed about sex and also very hung up about it. I think we need to get over that!"

Juju seems to agree as her voice-over immediately chimes in, "Our sexual happiness, it seems, depends on it." So why do I study sex?

Sex is important for overall physical and emotional well-being. Yet we know less about human sexuality and the brain than we do about possible life in outer space. In fact, until we understand how sex is wired in the brain, we will not fully understand how genitals, especially female genitals, work, how to help people with sexual disorders, and how and why addiction and mood disorders take root.

Interestingly, this question never came up when I was a sex therapist working privately with women and men on their complications and challenges in the bedroom. Sure, I'd been interviewed by magazines and newspapers, and some of my more interesting cases as well as my approach to sex therapy have been featured in books. But no one ever seemed to ask me why I chose a career focused on sex in the first place. That all changed when I decided to go to graduate school and pursue a PhD in cognitive neuroscience with a focus on sex.

Why did I want to understand how the brain and sex relate? Really, it all started with a hunch that was formed during my clinical practice as a psychotherapist (this was before I specialized in sex therapy). The more I observed and tried to figure out the roots of unhappiness, dissatisfaction, and unease in the lives of my patients, the more I began to notice a common thread underlying the chief complaint that brought these patients to therapy. These people were all plagued to a greater or lesser degree with the inability to experience pleasure in life — a lack of enthusiasm, a deficit in well-being, and a decided inability to enjoy even

the simple pleasures. *It was as if these people had lost their lust for life*. From a clinical perspective, they were in a state of anhedonia, the inability to experience pleasure and its satisfaction.

Year after year, throughout my practice, hundreds and hundreds of people have showed up in my office, trying to understand why they feel so flat, so angry, so irritable, so anxious, so depressed. Many reports in recent years both highlight and quantify an increase in anxiety, depression, suicide, and acts of violence. We see and hear these reports on the news, and many of us wonder if this is a blanket reaction to the ongoing drama surrounding the state of our country. But, as a clinician, I know that this rise in anxiety and psychological pain is both preexisting and progressing. Although most of us won't recognize it as anhedonia, this lack of interest and burned-out flatness of our emotions are part and parcel of the diminishment of satisfaction that underlies — and drives — more of the same. In other words, we can't solely blame what's going on in the world. In fact, it is highly probable that this epidemic of psychological pain and the associated overly triggered negative emotions have significantly contributed to the current political climate. When in an emotionally defensive state of mind, we don't make the best decisions. We feel desperate and fall into fear-driven, angry, and reactive behaviors. We get emotionally hijacked. We may even vote against our own interests. Yes - making decisions while caught up in a cascade of volatile emotions rarely presages reasoned, productive decision making, and we get caught in what can feel like a never-ending cycle.

Like the proverbial frog that doesn't notice that his warm bath is gradually heading toward the boiling point, we have become so habituated to anhedonia that we don't adequately recognize its presence. Then it just gets worse, stealing our propensity for joy, robbing us of sensual delight, blocking us from the release of sexual excitement. What used to give us pleasure now no longer carries enough friction to lift us out of the flatline

state called emotional downregulation, when our biochemical systems have become imbalanced. The results? Anxiety, discomfort, withdrawal, and overreactions, to name a few. At a biological level, our nervous system has become so dysregulated that we literally can't feel pleasure and, in some cases, have even stopped seeking it.

When I would broach the subject of sexuality with my psychotherapy clients, most were deeply resistant to even addressing the very existence of their sexuality in the course of therapy. I always begin a new client relationship with the following questions: "How's your health? Your work? Your relationships? Your sex life?" This last question routinely seemed to elicit strong feelings of embarrassment, shame, and fear from my clients. And yet, I also found that when they started talking about their sexuality in sessions, we were able to get at the heart of their other issues more quickly and with more insight. Once this door opened, they wanted to know why they couldn't have satisfying sex, why they didn't even want sex, and what, if anything, they could do about it. If they were able to talk openly with me about sex, clients became empowered across the board to go deeper into revealing their authentic selves in the process. And, once this door was open, they became much more willing to open others.

Although some sexual issues have real physical causes, the root of what typically plagues clients can be traced to anhedonia. Like so much of our human experience, sex is biological, psychological, and social, and understanding the interplay of these three factors in our experience of sexual pleasure sheds important light on the role pleasure plays more broadly in our overall well-being. Indeed, I had a strong hunch that what I was observing in my clients and patients was what I was also beginning to see in both the neuroscience literature and in my own research. But first, I had to crack the code about anhedonia.

Our anhedonia can take many shapes. Never before have we been tak-

ing so many drugs — both prescription and substances of abuse — for what ails us. We are facing an unprecedented number of deaths as people attempt to self-medicate their psychological pain. We are also highly reactive, as evidenced by the recent rise in road rage, gun violence, domestic violence, sexual violence, and other outward signs of a culture going "postal." Indeed, over the past few years we've been reeling from one mass shooting after another, with scores of innocent people killed.

But most of us who experience anhedonia do so without this outward cry of rage and despair; indeed, the majority of people suffering from anhedonia do so in relative silence, living lives tangled up in a stew of negative emotions, unable to experience the pleasure that would break them free. Though this silent majority may be leading otherwise productive, successful lives, they also live with pain, sadness, worry, fear, and shame. And this emotional quicksand seems only to be getting worse — *fast*.

As Bob Dylan once said, you don't need a weatherman to know which way the wind blows. Just look around. Pain is everywhere: depression, anxiety, addiction, physical ailments, psychic strain, social isolation, financial stress, spiritual suffering. These negative emotions seem to be getting the best of us.

So how does this relate back to sex?

I began to notice that even when clients sought treatment of issues that were not related to sexuality, as I dug deeper, their sex lives were often impacted. And when people came in for treatment of sexual issues specifically, whether it be for the lack of sex altogether, low or no desire, or difficulty with erections or orgasm, something was out of whack with their emotions. Like clockwork, when someone's emotional life was askew, so too was their sex life, and when their emotional life was wonky, their sex life often suffered. Year after year, client after client, I observed that regardless of how high functioning a person might be in their life — in their career, for instance — if an emotional issue brought them into

my office, there was also something wrong or missing in their sex lives and vice versa. I knew this connection between emotion and sex was no coincidence.

Indeed, I found my clients' sex lives to be an incredibly helpful touchstone — whether they were seeking help for this issue or not — because sex, whether it's happening or not, is always so readily demonstrable and recognizable for people. A client may not realize that they are experiencing an emotional imbalance, but they do know if they can't orgasm. Our sex lives are often the bellwethers of our emotional issues.

I've always known instinctively that good sex is tied to happiness and well-being and bad sex or the absence of sex is a likely trigger of unhappiness, and this connection between good sex and happiness was showing up in my practice. The people who report having healthy or satisfying sex lives feel better, manifest less depression and anxiety, and experience an overall more complete sense of happiness in their lives.

It was this relationship between well-being and sex that proved to be one of the driving questions I wanted to investigate when I arrived at graduate school at fifty years old. I had a hunch that the brain is a big player in why sex makes us feel better or, to the contrary, why its absence makes us feel bad. I suspected that the key to studying this had to do with figuring out how the brain represents and processes pleasure. As I did a bit of digging, I discovered surprisingly little was known about how the brain responds to sexual pleasure. This gap in the scientific research fueled my fire. And I believed that although sex may not seem as important a topic as say cancer, AIDS, or dementia, studying sex from the vantage point of the brain had the potential to impact the everyday lives of many, many people and in ways that could be absolutely, positively life-altering.

Pursuing this giant hunch, I dived into a seven-year PhD program, spending copious hours doing lab research and using my free time to continue seeing clients. One of my first goals was to establish how sex — good or bad — could be traced to activity in the brain. As I followed this thread, two distinct but inextricably linked ideas began to emerge: first, that the sexual issues that were so evident and pervasive in my clinical practice were tied to deep emotional or psychological unrest stemming from an imbalance in the core emotional systems of the brain; and second, that by examining the brain's activity during sex, I was beginning to get a fuller, more complete picture of how these imbalances in the brain in turn impact the body's experience of sex.

In the pages ahead, you are going to see just how pleasure and sex play out in the brain. You are going to see — just like I did in my lab — exactly how deep our pleasure pathway is tied to a set of deep core emotions that are wired into our brains. You will become familiar with how your brain operates — from its bottom, which works fast, almost automatically, to the midlevel, where we house our earliest learnings that show up in our behavior and attitudes toward pleasure and sex, to the top brain, our prefrontal cortex (PFC), which works more deliberately and slowly and tends to overthink, overworry, and overdo everything. Indeed, one of the most mind-blowing things you're going to learn is just how much we are still driven by this more primal emotional brain of ours — and it has a lot to do with why we are stuck in this state of anhedonia.

By looking through the lens of how our brains are wired for pleasure, we will learn how to reclaim our innate, biologically wired capacity and need for joy, fun, exuberance, curiosity, and humor in all aspects of our lives. Rediscovering this capacity for pleasure is key to fostering overall emotional and physical well-being. Are deeply pleasurable experiences important to you? Do you actively prioritize them? Do you cherish them when they strike? If not, you might well reconsider. Indeed, our relationship with our own sexuality can provide keen insight into how we think about pleasure, avoid pleasure, want pleasure, and resist pleasure. Since sex embodies pleasure, it affords us a particularly powerful lens

through which to understand pleasure more broadly. It captures the complicated interplay between emotion, neural pathways, and personal experience — indeed all the factors that go into being able to have — and appreciate — true pleasure. And good sex, then, becomes the promise and the wonderful, delightful outcome!

By seeing all that's related to our sexual system you can retrace your path back to pleasure. This path also reveals outdated myths in how we define sexuality: it's not just for reproduction or for the purpose of relieving sexual tension. Our sexuality — like so many of our human processes and experiences — is deeply linked to our emotions, to our early experiences, to our current and past relationships. Because sex is biological, psychological, and social, it embodies so much of who we are and how we are doing at any given time.

Our relationship with our sexuality gives us a way to assess our capacity for pleasure, and, as we do so, evaluate the functioning of the emotional brain. I have come to see our sexual issues like the proverbial canary in the coal mine — an early warning sign of an emotional brain out of balance. Just as learning, memory, and decision making are all cognitive processes tied to emotional processes, our sexual experience — the drive for sex, the desire for sex, the avoidance of sex — are also tied to core emotional states that are wired into the brain. Uncovering these connections will not only show the way out of this pervasive state of anhedonia but will also show explicitly why sexual pleasure has the power and capacity to bring us a more complete happiness, one that is not just mindful but also full of all the sensations that the body brings to our experience.

Would you like to understand how to gain true satisfaction from both your daily experiences as well as sex itself? Would you like to understand how we are wired to need these pleasures in order to function at our best?

This book seeks to not only reveal the fundamental problem in how

we think about sex and pleasure more broadly but also unlock the secrets about how women and men, regardless of age or orientation or inclination, arrived at this problematic relationship to their own experience of pleasure. The book begins by revealing how anhedonia shows up in the brain and how some of our lifestyle choices further undermine our capacity for all sorts of pleasure. You will see how the way that you think about and experience sex (or, alternatively, avoid it) reflects — and affects — the tonality and balance of your core emotions such as fear and anger, care and grief, lust and play, which are all part of our mammalian brains, driving the pleasure system. You will then gain a more accurate understanding of the inner workings of your sexual desire, emotional functioning, and capacity for pleasure. I've included many practical Good Sex Tools to help you resolve emotional issues related to pleasure and sex, connect with yourself and your partner so that you feel better, and learn how to question the limits that may be holding you back from fully experiencing your sexual potential. Some of these tools are exercises you do on your own; others you can do with your partner. All of them are designed to move you out of anhedonia and into pleasure.

Pleasure may sound complicated, but it isn't. We have a direct route to it through awareness of our core emotions. And our brain and its networks can be retrained and restored to once again reclaim pleasure, a state of mind attuned to satisfying sensations that allow you to actually like what you want and want what you like. As you map out your own path, you will learn the answers to questions like:

- What exactly is pleasure?
- What is the purpose of pleasure, in particular sexual pleasure?
- How is the brain wired for pleasure, pain, and other emotions?
- What is the link between pain and pleasure?

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- How do our attitudes (both personal and societal) affect our experience of and capacity for sexual pleasure?
- How do our genes, environments, and nature/nurture interactions affect our capacity for sexual pleasure?
- How do the differences between men and women reinforce sexual misunderstandings?
- How can accessing our sexual potential make us smarter, happier, and more productive?
- How can a new understanding of sex lead to a more expanded way to experience pleasure in all aspects of our lives?

By exploring these questions, you will not only discover the healing power of healthy pleasures but also regain your lust for life. You will learn to unleash your own sexual potential and experience an ever-deepening, ever-expanding enjoyment of being an enlivened sexual being. Though we may seem to be in a pleasure crisis, when we follow our craving for pleasure, staying alert to all that it awakens in our bodies and brains, then we will no doubt discover a new frontier, one that I like to define as healthy hedonism, a place where pleasure is central and essential to all that we do in our lives.