Introduction

This essay precedes, compliments and supports *Sensory Deprivation and the Developing Brain*. It develops a scientific framework that establishes pleasure as the glue that forms and maintains human bonds. Think about it. Affectionate human touch is pleasurable. Being held as a baby, nursing at the breast of a pleasure filled mother, feeling close, safe and later in life, human sexuality and reproduction is full of pleasurable sensations. There is even a hormone, oxcitocin, called nature’s love or pleasure drug that produces the euphoric blush we all know and covet. It is time that we let pleasure out of the closet. And here’s why.

Abstract

Pleasure and happiness provide the “glue” that attach and bond human relationships. We are attracted to experiences that generate pleasure and disassociate from those that cause physical or emotional pain. Pleasure and its subsequent bonding integrate brain development. Pain prevents this integration. Pleasure and pain are the primary sensory systems for socialization, which are encoded first in the emotional-social-sexual brain and later in the cognitive, rational, thinking brain. The encoding and early integration of these two brain systems through pleasure or their fragmentation through pain give rise to a self-world view that shapes individual life and culture. The moral definition and use of pleasure and pain by culture represents the cause and effect of this brain encoding process.

For most ‘bonding” and “attachment” describe intimate, nurturing relationships between children and adults. Enduring human relationships, the capacity to experience empathy, to respond to the needs of others, to touch and be touched by nature in all its varied forms, originate from the pleasure first experienced between mother and infant. Pleasure and happiness, or their absence, encodes the developing heart and brain for a lifetime of similar experiences.

Research reveals that our body-brain-mind and the environment represent two sides of a vast complex reciprocal-dynamic. Our biology and our world co-create each other. Our world-experience alters our brain’s structure, chemistry, and genetic expression throughout life, and in turn, our brain reflects and determines the world we experience. The question is no longer one of nature or nurture. It is the interaction between these two that sculpts life from beginning to end.

Intelligence is the capacity to respond to the environment in ways that expand learning and promote well-being. The interaction between our body and the world shapes how this intelligence unfolds. Recent discoveries in the field of neuro-cardiology show that the electromagnetic fields generated by the heart play a surprising role in defining this interaction. Guided by the heart, human development rests squarely on the sensations represented by the ancient sensory-motor “hind brain,” our “survival system.”
Over millennium, nature evolved an even more complex brain through which we make qualitative evaluations of the sensations generated by our sensory-motor brain. This new emotional-relational brain, inherent within all mammals, draws us toward experiences that are pleasurable and impels us to avoid those that are painful. Pain warns us of danger—avoiding what is harmful. Pleasure attracts us to what is nurturing—seeking what is good. The developing brain must experience pleasure and happiness if the integration of sensations involved in learning and social adaptation is to take place. A child denied pleasure and happiness develops a brain that is neuro-dissociative, one that fragments rather than integrates experience.

This integrative nature of pleasure and the dissociative effect of pain were demonstrated years ago when newborn monkeys were separated from their mothers and raised in isolation. The pain and pleasure systems of these mother deprived monkeys were impaired causing maturing juvenals and adults to compensate for their early sensory loss with super-sensory stimulation, i.e., chronic touch, stereotypical rocking, hyperactivity, attention deficits, touch aversion (hyper-reactivity) and self-mutilation (impaired pain perception), all behaviors with strong parallels in many of today’s children and adults.

Robert G. Heath, former Chairman of the Department of Psychiatry and Neurology, Tulane University Medical School, documented brain pathologies these violent, mother deprived adult monkeys. Heath also documented that direct electrical and chemical stimulation of pleasure centers in violent adult humans arrest pathological depression, anger, and rage—where all prior psychiatric treatments had failed. Heath’s research further documented the reciprocal inhibitory relationship between pain and pleasure, where body-brain pleasure inhibits depression and violence and physical and psychological pain inhibit pleasure with its implicit neural integration.

The necessity to experience and share pleasure and happiness lifelong begins with mother and her infant. The mother’s body is the “world” of the newborn and the newborn becomes the focus of the mother’s world, as emphasized by Sarah Blaffer Hrdy in Mother Nature. Infant and mother mirror each other’s emotional state - each eliciting from the other those responses that bring about and sustain the pleasure and joy they share. These shared sensations produce morphine-like hormones, oxytocin, prolactin, and other brain neurotransmitters, serotonin, dopamine and phenylethylamine (PEA— the “molecule of love”). Essential amino acids in mother’s breastmilk are critical in the formation of these brain neurotransmitters, which in turn facilitate the experience of pleasure. Many of these essential amino acids are deficient or completely absent in infant formula.

Nature expects the infant to be wrapped in the safe and pleasurable haven of the mother’s body. Affectional touch, movement, breastfeeding and playful communication provide a rich assortment of interweaving sensations that stimulate brain integration. Soon the interface between child’s body and its world expands to embrace larger universes: father, siblings, extended family, society, and that vast mystery we call nature. With each expansion new realms of sensation and shared meaning unfold. Each new order of relationship transcends the limitations of the former, transforming at each step what it means to be human.
Eliminate safety and touch with its pleasure and joy, and this expansive exploration is curtailed, impeded, as the infant-child-adult dissociates from their isolation and pain, retreating into self-defense. The biological imperative that this affectional bond be established at birth and nurtured throughout life is, however, largely crippled by culture.

Culture is a learned and acquired “body of survival strategies.” We are conditioned from birth to employ these strategies and must employ them if we are to survive culture itself. The cultural imperative is that this complex set of predictable-controllable behaviors must be learned by every infant-child. These are behaviors that all parents induce in their children for fear of their own cultural censure.

Pain-punishment and pleasure-reward are used to enculturate these predictable-controllable behaviors. We promise our children and young people pleasure if they behave according to our cultural imperatives, and pain if they don’t. But one inhibits the other. The fear of pain and pain itself distorts our ability to experience pleasure, even if available. All relationships, social, personal, interpersonal, and all learning, spontaneous or sought after, are adversely affected by this negative inhibition.

In violation of millions of years of bio-cultural evolution, the integrative nature of joy and pleasure (rewards) and the dissociative effect of pain (punishment) have been incorporated into belief systems that, in turn, are used to control and modify behavior. These belief systems often deny and prevent the neural integration of joy and pleasure on behalf of behavioral control through pain and fear. This betrayal of true intimacy creates sharp gender inequalities that place male and female in violent conflict further distorting the basic dynamic upon which family life depends.

Religious dogma plays a major role in the development of these belief systems where pain and suffering become virtues, physical-emotional pleasures become sins and gender inequality becomes the norm. From this brooding accusation that religion levies against us, the transcendent human spirit is diminished to the point of extinction, while the pathology of guilt, sin and “salvation” becomes the veritable foundation of our conscious mind. Even though we may reject religious beliefs, these precepts form the backbone of cultural imperatives used to control us from infancy. These precepts are ultimately and intimately woven into the very fabric of our self-image, thought and consciousness.

Affectional bonding and attachment, far from romantic sentiment, provide the foundation for all human development. Understanding the way pain fragments the brain, (often beginning with ritual circumcision, shown to alter normal pain-pleasure perceptions later in life), the integrative role of pleasure; and how these different experiences shape the developing brain and its behaviors is critical in understanding the true nature and importance of attachment and affectional bonding.

The essential role of pleasure in human development cannot be over stated. Pleasure and joy are not only moral, but are morally necessary to develop a moral person, a non-violent society, and truly intelligent culture. Belief systems that deny this biological imperative must be recognized as immoral, destructive, and obsolete, for these systems prevent the awakening and expression of our authentic human spirit which is striving continually to transcend the limitations imposed on us by culture.
References


