
THE LOVE HORMONE

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Although family law has often tracked biology, it has not necessarily done so regarding family-forming hormones like oxytocin. This article considers the extent to which family law has protected the bonds created by oxytocin, and the extent to which it should.

I. INTRODUCTION

Family law often lags behind science, but legislators have attempted to keep up on certain issues.¹ In many ways, biology has been a guide for family law.² For example, alternative reproductive technology expanded the biological family in new ways, prompting the rethinking of family law and leading to new family laws on topics such as surrogacy.³

However, there is a biological phenomenon, oxytocin, that legal scholarship has addressed,⁴ but family law has not. Oxytocin is one of the love hormones

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1. See Deborah Zalesne, *The Intersection of Contract Law, Reproductive Technology, and the Market: Families in the Age of Art*, 51 U. RICH. L. REV. 419, 424 (2017) (“The lag of family law behind technology can be explained both by state legislatures remaining slow to expand statutory definitions of family, and by family law remaining doctrinally wedded to its patriarchal origins.”).

2. See, e.g., Lauren Springett, *Why the Intent Test Falls Short: Examining the Ways in which the Legal System Devalues Gestation to Promote Nuclear Families*, 52 COLUM. J.L. & SOC. PROBS. 391 (2019). See also Douglas NeJaime, *The Constitution of Parenthood*, 72 STAN. L.REV. 261, 268 (2020) (noting a “biological approach to constitutional parenthood”).

3. Springett, *supra* note 2; see also Susan Frelich Appleton, *Parents by the Numbers*, 37 HOFSTRA L. REV. 11 (2008) (“Today, the law increasingly accommodates families formed through[assisted reproductive technologies] [ART], and, in doing so, recognizes parents on not only biological but also social grounds.”); Haim Abraham, *A Family Is What You Make It? Legal Recognition and Regulation of Multiple Parents*, 25 AM. U. J. GENDER SOC. POL’Y & L. 405, 417 (2017).

4. See, e.g., Sherry F. Colb, Essay, “*Never Having Loved at All*”: An Overlooked Interest that Grounds the Abortion Right, 48 CONN. L. REV. 933 (2016) (discussing oxytocin in family law); Ryan S. Keller, *Beyond Homo Economicus: The Prosocial Brain & the Charitable Tax Deduction*, 34 VA. TAX REV. 357, 383 (2015) (discussing oxytocin in tax law); Sheri Lynn Johnson, Amelia Courtney Hritz, Caisa Elizabeth Royer, & John H. Blume III, *When Empathy Bites Back: Cautionary Tales from Neuroscience for Capital Sentencing*, 85 FORDHAM L. REV. 573, 580 (2016) (discussing oxytocin in criminal law); Jeremy Lack & François Bogacz, *The Neurophysiology of ADR and Process Design: A New Approach to Conflict Prevention and Resolution?*, 14 CARDOZO J. CONFLICT RESOL. 33, 44 (2012) (discussing oxytocin in negotiation and conflict resolution); Sandeep Gopalan & Katherine Watson, *An Agency Theoretical Approach to Corporate Board Diversity*, 52 SAN DIEGO L. REV. 1, 17 (2015) (discussing oxytocin in corporate law).

that leads to the formation of family attachments through bonding.⁵ For example, the human brain produces and releases oxytocin in scenarios including sexual relations and the birth of a baby.⁶ Both may lead to the formation of families, but not always.

To what extent does family law track oxytocin, and to what extent should it? This article takes a look at the hormone oxytocin in the formation of families, and whether family law addresses it.

II. OXYTOCIN

Oxytocin is a peptide hormone synthesized in the hypothalamus region of the brain of mammals and released from the posterior pituitary gland.⁷ “It participates in the neuromodulation of uterine contractions, lactation, social interactions and emotion.”⁸ In other words, this hormone occurs in two different contexts that may result in a family—between children and their parental figures, as well as between adults in the romantic context.⁹ Given their different natures, this Part considers each separately.

A. Children

Oxytocin released during pregnancy and labor helps bonding between parent and child.¹⁰ Oxytocin also results when parents interact with their children.¹¹

Although not expressly addressing oxytocin, family law protects the resulting relationships between biological parents and their children, and much of family law is concerned with the question of parentage.¹² Biological parents even

5. See, e.g., Colb, *supra* note 4, at 944 n.29. Vasopressin is another such hormone. “[L]ong-term attachment... is associated overwhelmingly with higher levels of oxytocin and vasopressin, which are two closely related chemicals. Oxytocin tends to play a role more in women, vasopressin more in men, but these chemicals are ancient and universal.” June Carbone, *Understanding the Biological Basis of Commitment: Does One Size Fit All?*, 25 WOMEN’S RTS. L. REP. 179, 183 (2004).

6. Kerstin Uvnäs-Moberg, Linda Handlin, & Maria Petersson, *Self-Soothing Behaviors with Particular Reference to Oxytocin Release Induced by Non-Noxious Sensory Stimulation*, 5 FRONT PSYCHOL. (Jan. 12, 2015) (“Oxytocin is released in response to activation of sensory nerves during labor, breastfeeding and sexual activity.”), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4290532/> [<https://perma.cc/UH8K-K3LT>].

7. *Oxytocin*, NATUREPORTFOLIO (Jan. 2, 2023), <https://www.nature.com/subjects/oxytocin> [<https://perma.cc/93TM-8U6F>].

8. *Id.* See also Allison M. J. Anacker & Annaliese K. Beery, *Life in Groups: The Roles of Oxytocin in Mammalian Sociality*, FRONT BEHAV. NEUROSCI. (Dec. 11, 2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3858648/> [<https://perma.cc/5SJP-CX76>].

9. See, e.g., Colb, *supra* note 4, at 945 n.30.

10. Adeline A. Allen, *Surrogacy and Limitations to Freedom of Contract: Toward Being More Fully Human*, 41 HARV. J.L. & PUB. POL’Y 753, 775 (2018) (“Oxytocin, a hormone present in higher quantities in pregnancy and released in labor and birth to promote bonding between mother and newborn child, “imprints the baby on the mother, and the mother on the baby.””).

11. Linda Nielsen, *Shared Physical Custody: Does It Benefit Most Children?*, 28 J. AM. ACAD. MATRIM. LAW. 79, 124 (2015).

12. For example, several adoption cases have reached the U.S. Supreme Court in recent years, and others have almost reached the highest court. See, e.g., *Adoptive Couple v. Baby Girl*, 570 U.S. 637 (2013).

have constitutional rights as such.¹³ Specifically, the relationship between parents and children is considered fundamental, which protects it from governmental intrusion.¹⁴ For example, the constitutionally protected parental right to control the upbringing of one's child includes the right to direct the child's education.¹⁵

However, oxytocin can also be released outside biological parental relationships, such as through physical affection like hugging.¹⁶ Family law doctrines have also arisen to protect bonding between non-biological parents and children.¹⁷ For example, many states "have adopted an in loco parentis, psychological parent, or de facto parent doctrine for custody determinations in recognition of the psychological bond formed between the child and the nonparent."¹⁸ In addition, the doctrine of equitable adoption is an adoption of a child without a court order based on a promise to adopt or the treatment of the child as adopted.¹⁹ Such doctrines have especially been useful to protect non-biological same-sex parents.²⁰

From the child's perspective, the best interests standard aims to protect the child's close relationships, even taking into account a child's opinion once the child reaches a certain age.²¹ Indeed, the legal standard for custody and visitation by both parents and non-parents is the best interests of the child.²² Examples of factors to be considered in a child's best interests determination include (1) the age and gender of the child, (2) the wishes of the child's parents, (3) the wishes of the child, with more weight given to older children such as teenagers, (4) the connection of the child with the parents, siblings, and any other person who may significantly affect the child's best interests, (5) the child's adjustment to home, school, and community, (6) the mental and physical health of all individuals involved, and (7) evidence of a pattern of domestic abuse by either parent.²³ Family law's concern for a child's best interests helps ensure that oxytocin-bonds are preserved.²⁴

13. Margaret Ryznar, *A Curious Parental Right*, 71 SMU L. REV. 127 (2018).

14. Margaret Ryznar & Chai Park, *The Proper Guardians of Foster Children's Education*, 42 LOY. UNIV. CHI. L.J. 147 (2010).

15. See Ryznar, *A Curious Parental Right*, *supra* note 13.

16. David Favre & Thomas Dickinson, *Animal Consortium*, 84 TENN. L. REV. 893, 916 (2017) ("Oxytocin is also released in smaller quantities when humans hug, kiss, and look into each other's eyes.").

17. Michelle M. Gros, *In the Case of Biology v. Psychology: Where Did My "Parent" Go?*, 52 FAM. L.Q. 147, 154 (2017); see *infra* note 18 and accompanying text.

18. *Id.*; see also NeJaime, *supra* note 2.

19. Irene D. Johnson, *A Suggested Solution to the Problem of Intestate Succession in Nontraditional Family Arrangements: Taking the "Adoption" (and the Inequity) Out of the Doctrine of "Equitable Adoption,"* 54 ST. LOUIS U. L.J. 273, 274 (2009).

20. *Id.*

21. See, e.g., IND. Code § 31-17-2-8 (2022) (mandating that custody orders be made in the best interests of the child, which includes the "wishes of the child, with more consideration given to the child's wishes if the child is at least fourteen (14) years of age").

22. See, e.g., *id.*

23. *Id.*

24. See, e.g., *id.*

Thus, while family law has never explicitly addressed oxytocin, the bonds between adults and children produced by it are often indirectly protected by family law.²⁵ This is, in fact, a position more deferential to oxytocin than in the romantic context between two adults, considered next.

B. Marriage

Family law does not protect bonding driven by oxytocin in the romantic context as much as in the parent-child context.²⁶ However, marriage itself is not always the result of oxytocin. It is a social and legal choice, more than a biological one, and it is an institution with certain roles.²⁷

People select whomever they want to marry and it may not necessarily be based on oxytocin. With some restrictions, the law recognizes the spouse a person selects regardless of the reasons.²⁸ For example, if a person marries another for money instead of love, family law will protect this marriage as much as any other.²⁹ Indeed, throughout history, marriage had an economic nature, used to unite two wealthy families or to pool resources.³⁰

The lack of default laws protecting cohabitants serves as further evidence that family law does not protect oxytocin-bonds between couples.³¹ If there is no marriage, family law does not recognize any defaults regarding the separation of a couple regardless of any previous oxytocin or love between the couple.³² Marriage is “[t]he central dividing line in family law” that triggers legal consequences.³³ In other words, family law essentially treats the relationship between cohabitants no differently than that of strangers. If they want protection, cohabitants are expected to contract for it—marriage law does not apply.³⁴

In sum, family law in relation to adult romantic relationships is not necessarily about love or oxytocin at all.³⁵ This prompts the normative question of whether it should be, which, in turn, requires an examination of family law.

25. See, e.g., *id.*

26. See, e.g., Margaret Ryznar & Anna Stępień-Sporek, *Cohabitation Worldwide Today*, 35 GA. ST. U. L. REV. 299 (2019); see also Part II.

27. Jill Elaine Hasday, *The Canon of Family Law*, 57 STAN. L. REV. 825, 835–36 (2004) (pointing out marriage is a status with ascribed legal obligations and benefits).

28. See, e.g., Janet L. Dolgin, *Biological Evaluations: Blood, Genes, and Family* 41 AKRON L. REV. 347 (2008) (describing the importance of individual choice and autonomy in family law). Marriage restrictions may include bans on polygamous marriages as well as those between biological family members. See, e.g., VA. CODE § 20-38.1 (2017).

29. “In traditional societies, the family served as the most important source of wealth and status.” Margaret F. Brinig & June Carbone, *The Reliance Interest in Marriage and Divorce*, 62 TUL. L. REV. 855, 856 (1988).

30. *Id.*

31. Ryznar & Stępień-Sporek, *Cohabitation Worldwide Today*, *supra* note 26.

32. *Id.*

33. Clare Huntington, *Family Law and Nonmarital Families*, 53 FAM. CT. REV. 233, 235 (2015).

34. See *infra* Part III. A cohabitation agreement typically addresses property distribution if cohabitants separate, organizing the property relations between them. See Ryznar & Stępień-Sporek, *Cohabitation Worldwide Today*, *supra* note 26.

35. See Brinig & Carbone, *supra* note 29.

III. FAMILY LAW

To what extent should family law recognize oxytocin? Currently, any family law protection for oxytocin is indirect.³⁶ In the marriage context, it is under-inclusive.³⁷

Family law seems to protect, even if indirectly, children's oxytocin bonds to adults more so than those between adults for several reasons. First, the vulnerability of children—the fact that they have so little control and understanding—means that they need to be protected.³⁸ Children's relationship with their parents is also a foundational relationship.³⁹

Second, adults do not necessarily marry based on oxytocin,⁴⁰ and they are more likely to have the emotional tools to deal with oxytocin-generated bonds than children. Marriage itself is not necessarily about oxytocin-bonds.⁴¹ Historically, marriage was not about love.⁴² Today, despite the number of marriages for love,⁴³ people delay marriage. Thus, people experience oxytocin in romance far earlier than they marry—and often with different people than their spouses. For example, people date for years before marriage.⁴⁴ They might cohabit for years before they finally marry.⁴⁵ They may also marry several times for different reasons. This shows that oxytocin does not necessarily lead to marriage. Yet, family law has drawn its boundaries at marriage for default protections.⁴⁶ Indeed, family law is the story of inclusion and exclusion.⁴⁷

36. See *supra* Part II.B.

37. *Id.*

38. See generally Clare Huntington & Elizabeth S. Scott, *Conceptualizing Legal Childhood in the Twenty-First Century*, 118 MICH. L. REV. 1371 (2020) (discussing the law's approach to children).

39. See, e.g., Cynthia A. Frosch, Sarah J. Schoppe-Sullivan, & D. David O'Banion, *Parenting and Child Development: A Relational Health Perspective*, AM. J. LIFESTYLE MED. 45 (May 26, 2019), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7781063/> [<https://perma.cc/S96J-9T9R>] (noting the “critical importance of early parent-child relationship quality for children's socioemotional, cognitive, neurobiological, and health outcomes”).

40. See *supra* Part II.B.

41. See *supra* Part II; Twila L. Perry, *The “Essentials of Marriage”: Reconsidering the Duty of Support and Services*, 15 YALE J.L. & FEMINISM 1, 8–9 (2003).

42. One scholar has suggested that the traditional “essentials” of marriage are an exchange of financial support for domestic services, with sexual access and exclusivity included. Perry, *supra* note 41.

43. In one survey of people engaged to be married, forty-two percent said they were marrying for love, thirteen percent said they saw it as sign of commitment, and nine percent saw it as progress in their relationship. Three percent did not know why they were getting married. JONATHAN HERRING, FAMILY LAW 44 (2011).

44. According to the Centers for Disease Control and Prevention, the mean age for first sexual intercourse in recent years is 17 for both men and women. *Key Statistics from the National Survey of Family Growth—S Listing*, CTR. FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/nchs/nsfg/key_statistics/s.htm#sexualactivity (last visited Sept. 20, 2023) [<https://perma.cc/VJ9W-562B>]. Yet, the average age of marriage has been 27 for women and 29 for men. *Historical Marital Status Tables*, U.S. CENSUS BUREAU, <https://www.census.gov/data/tables/time-series/demo/families/marital.html> (last visited Sept. 20, 2023) [<https://perma.cc/L792-RGWD>].

45. Over 8 million opposite-sex couples cohabited in 2016. Kate Redburn, *Zoned Out: How Zoning Law Undermines Family Law's Functional Turn*, 128 YALE L.J. 2412, 2465 (2019).

46. See *supra* note 33 and accompanying text.

47. For example, certain relationships are excluded from recognition and others are included. *Id.*

Finally, unlike children, adults have contractual autonomy.⁴⁸ To enter into a contract, both parties must have capacity,⁴⁹ typically determined by age as well as mental capacity to understand contract terms.⁵⁰

Indeed, the main workaround to family law is contract law. Contracts between adults in romantic relationships have been recognized in family law, allowing parties to contract into their own preferred relationship arrangements.⁵¹ Common examples of family law contracts include cohabitation agreements before cohabitation, prenuptial agreements before marriage, postnuptial agreements after marriage, and separation agreements upon divorce.⁵² Couples enter into these contracts to change the legal defaults that apply to them.⁵³

However, family law contracting may have certain weaknesses.⁵⁴ The bargaining process in the romance context is not necessarily at arm's length because it may be influenced by passion or love. The characteristics of romantic relationships, dependent on life circumstances and children, are also sufficiently unique to prevent the blind application of pure contract principles. Indeed, such agreements must survive substantive and procedural review or risk non-enforcement.⁵⁵

Another significant issue with family law contracts is that many people do not seek them for various reasons. They may be too optimistic about their upcoming marriage or worry about signaling doubt about its success.⁵⁶ Some couples might also advance their relationship too quickly to formally plan. Many couples also do not realize the existence of such family law contracts or their benefits.⁵⁷ Other reasons attributed to the avoidance of family law contracts include romanticism, religion, economic status, and enforceability concerns.⁵⁸ Thus, despite judicial and social gains in the acceptance of family law contracts, such agreements are not common.⁵⁹ Often, the people most likely to seek such contracts are wealthy or have been previously divorced.

48. See, e.g., Elizabeth S. Scott & Robert E. Scott, *A Contract Theory of Marriage*, in *THE FALL AND RISE OF FREEDOM OF CONTRACT* 201 (F.H. Buckley ed., 1999).

49. *Id.*

50. *Id.*

51. *Id.*

52. Margaret Ryznar & Anna Stepień-Sporek, *To Have and to Hold, for Richer or Richer: Premarital Agreements in the Comparative Context*, 13 *CHAP. L. REV.* 27 (2009).

53. *Id.*

54. Sean Hannon Williams, *Postnuptial Agreements*, 2007 *WIS. L. REV.* 827, 844 (2007) (noting criticisms of the bargaining process in the romantic relationship context).

55. Ryznar and Stepień-Sporek, *To Have and to Hold*, *supra* note 52.

56. Williams, *supra* note 54.

57. Studies have confirmed that the public's understanding of the law is subject to a knowledge deficit. Bridgette Dunlap, *Anyone Can "Think Like a Lawyer": How the Lawyers' Monopoly on Legal Understanding Undermines Democracy and the Rule of Law in the United States*, 82 *FORDHAM L. REV.* 2817 (2014). See also Helen Colby & Margaret Ryznar, *An Empirical Study of Family Law Illiteracy*, 58 *UNIV. OF LOUISVILLE L. REV.* 79 (2019).

58. See, e.g., Margaret Ryznar, *Unwanted Cohabitation Agreements*, 61 *FAM. CT. REV.* 73 (2023).

59. Kaiponanea T. Matsumura, *Consent to Intimate Regulation*, 96 *N.C. L. REV.* 1013, 1018 n.20 (2018) (discussing cohabitation agreements).

As a result, a common problem today is the rarity with which couples enter into family law contracts despite their importance and the lack of default protections at the end of non-marital relationships.⁶⁰ Nonetheless, romantic intimacy indeed invokes vulnerability, and family law seeks to protect people, particularly when it comes to the property consequences.⁶¹ Where family law ends, contract law begins.

None of this legal framework is based on oxytocin because of the priority placed on protecting economic vulnerability, regardless of oxytocin in the relationship.⁶² Indeed, oxytocin-generated bonds may not be necessarily mutual in romantic relationships.⁶³ They may not even last the course of the relationship, and people do not see them as reason enough enter into or stay in marriage. Another challenge for protecting oxytocin-bonds between adults is the difficulty of measuring them.

In sum, currently, family law supersedes biology.⁶⁴ Family law is a social construct with oxytocin as one possible biological cause of family formation.⁶⁵ It is not clear if and how the two should be linked. Other priorities have ranked higher in family law, such as people's autonomy to form families and stability in family structures.

IV. CONCLUSION

For now, oxytocin remains a biological phenomenon rather than a legal one—family law has not recognized oxytocin as a driver of family. While family law has tried to recognize biological realities, it has not explicitly addressed the age-old love hormone oxytocin. Although there is some indirect family law protection for certain relationships created by oxytocin, especially children's relationships with important parental figures, the law is not tailored for oxytocin in adult couples, and that might be just as well.

60. See, e.g., *New Data Reveal Misconceptions Around Prenups*, FIN. POST (Sept. 22, 2022), <https://financialpost.com/pmn/press-releases-pmn/business-wire-news-releases-pmn/new-data-reveal-misconceptions-around-prenups> [<https://perma.cc/JDT2-NQ8R>].

61. See, e.g., Ryznar and Stepień-Sporek, *To Have and to Hold*, *supra* note 52.

62. See, e.g., Margaret Ryznar, *All's Fair in Love and War: But What About in Divorce? The Fairness of Property Division in American and English Big Money Divorce Cases*, 86 N. D. L. REV. 115 (2010).

63. See, e.g., Katharine K. Baker, *Gender and Emotion in Criminal Law*, 28 HARV. J. L. & GENDER 447, 459 (2005) (“The way oxytocin interacts with estrogen indicates that women might be chemically more likely to feel attachment than men.”).

64. See Brinig & Carbone, *supra* note 29.

65. See Nielsen, *supra* note 11, at 124.