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Exposing the “Shadow Side”: Female-Female Competition in Jane Austen’s Emma

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Exposing the “Shadow Side”:
Female-Female Competition in Jane Austen’s *Emma*

A Thesis

Submitted to the Graduate Faculty of the
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in
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Melissa Lyman

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ABSTRACT

Many critics have examined the shifting nature of female friendship in Jane Austen's *Emma* from cultural and historical angles. However, a comprehensive scientific analysis of female-female alliance and competition in the novel remains incomplete. The Literary Darwinist approach considers the motivations of fictional characters from an evolutionary perspective, focusing primarily on human cognition and behaviors linked to reproductive success, social control, and survival. While overt physical displays of male competition are conspicuous in the actions of the human species and those of their closest primate relatives, female aggression is often brandished psychologically and indirectly, which makes for a much more precarious study. In this paper, cultural criticism and evolutionary psychology work together to unravel the most complicated and arcane layers of intrasexual competition between women in *Emma*. Ultimately, this dual interpretation of the novel steers readers towards a deeper understanding of Emma Woodhouse's imperiled friendships, and by extension, their own.

Jane Austen; Literary Darwinism; evolutionary psychology; mate selection; female-female competition

INTRODUCTION

“Ah! There is nothing like staying at home, for real comfort.” – Jane Austen, *Emma*

In the late summer of 1814, just one year before the publication of *Emma*, Jane Austen delivered the following literary counsel to her niece, Anna Austen Leroy: “You had better not leave England. Let the Portmans go to Ireland; but as you know nothing of the manners there, you had better not go with them. You will be in danger of giving false representations” (qtd. In Adkins xxi). An aspiring writer herself, Leroy had recently submitted a draft for her aunt’s critique, sparking an exchange of letters between the two authors. Among her detailed and numerous suggestions, Austen advised Leroy to restrict the setting of her novel to places where she felt “quite at home”—in other words, to focus on the environment with which she was most personally and directly familiar, rather than making imaginative leaps into international spaces (Adkins xxi). By September, Leroy had apparently relocated the action of her story to England, as Austen praised her for “collecting your people delightfully, getting them exactly into such a spot as is the delight of my life;—3 or 4 families in a country village is the very thing to work on” (Le Faye 287). Austen’s recommendation to her young relative mirrors her own authorial choices—indeed, many associate her designation as the preeminent “novelist of manners” with the small-town scenes that permeate her canon (Yoder 605). According to Edwin M. Yoder, the remote environment of rural England allows Austen to “intensify the punctilio of social life and impart intense significance to small gestures,” an impossible feat had she set her novels in crowded London (606). And as William Deresiewicz suggests, Austen’s works are an important reminder to readers that “life is lived at the level of the little” (14).

Emma, like all of Austen’s novels, features a small assemblage of characters in a secluded environment and pays particular attention to their quotidian society. When American

film director Amy Heckerling was seeking fodder for a teen comedy in the mid-1990s, *Emma* fit the bill with its focus on interpersonal intrigue. The “timeless and universal” and “completely current” human relationships she recognized in the novel (such as Harriet Smith holding onto trinkets from Mr. Elton like “any lovelorn teenager”) eventually inspired the screenplay for her 1995 cult classic *Clueless* (Heckerling 176). As critic Alistair M. Duckworth relates, the movie transcribes the plot of *Emma* onto a modern epoch by substituting sunny California for pastoral England, Jeeps for barouche-landaus, and miniskirts for muslins. The film’s heroine, Cher Horowitz, shares many characteristics with her literary predecessor, Emma Woodhouse— she is rich, young, beautiful, and believes that “Beverly Hills is the cent[er] of the world,” much like Emma, who never decamps from Highbury (Stern).

However, Jane Mills argues that the film is more of a “transformation” of the novel than an adaptation, for “it delights in diverging from it” (104). Though many of these deviations are fairly obvious (Cher dresses with the help of a digital walk-in closet, for example), one of Heckerling’s directorial choices is a more acute departure from the novel’s original storyline: the cinematic rendering of Cher’s close-knit female friendships. The opening scene features “a spinning overhead shot of a group of girls having fun in a car” followed by “a montage of Cher and her friends... shopping, driving, kidding about by the pool” (Stern). Careful readers of the novel *Emma* would be hard pressed to find an analog to Dionne, Cher’s fashionable and dynamic best friend. And the closest possible parallel, the future Mrs. Weston—considered “less... a governess than a friend”— is a Woodhouse employee (Austen, *Emma* 23).

The contrast between the novel and its adaptation becomes particularly conspicuous in Heckerling’s own explanation of the big screen equivalents for each of *Emma*’s characters. Dionne has no counterpart in the original novel, and a doppelganger for Jane Fairfax— Emma’s

rival in age, beauty, and talent— is mysteriously excluded from Cher’s entourage in the film. In retrospect, Heckerling reflects that Jane is “the one character that didn’t work for [her]” in the contemporary retelling (178). This prompts these questions: if invented, what is Dionne’s function in the revised narrative, and why is Jane erased? Although Heckerling contends that Jane’s character was simply a “bore,” I suspect another possibility: that this modification to the cast may reflect what psychologist Phyllis Chesler suggests is a societal discomfort with the idea that women, like men, can be “aggressive, competitive, and envious,” and thus foiled by intrasexual friendship (178; 26). By formulating Dionne and removing Jane, *Clueless* imbues Cher’s life with a dose of 1990s “girl power,” but in so doing, eclipses the frequent difficulties of friendship for girls in the novel, in the nineteenth century, and now (Gonick; Thomason).

Of course, this concept challenges pervasive ideals of “female-female bonding,” “intimate companionship,” and “altruistic sister[hood]” (Chesler 44-55). Current behavioral research shows that women routinely participate in relational aggression in order to “manipulate and to control social relationships and groups in self-serving ways,” while simultaneously denying any hostility because they are schooled to believe such conduct unsavory (Chesler 50; Geary 238). Ultimately, Heckerling’s interpretation obscures the ways in which Austen’s concern with manners is revealed through a protagonist who often lacks decorum and therefore faces considerable social strife, especially with other women. While Emma often contemplates the tenets of “warm female friendship” within the boundaries of her country seat, it is clear that the heroine leaves “a series of misguided and failed” sororal bonds in the wake of the novel’s final pages (Austen 181; Perry 188).

Yoder and Deresiewicz’s claims regarding the homebound nature of Austen’s themes dovetail nicely with Chesler’s observation that “women’s hidden war against each other...

begins at home” (10). The action of *Emma* rarely takes us beyond the Hartfield estate parish, and less than twenty individuals populate the entire “little circle” of the Woodhouses’ society (Austen 34). Fortunately, the novel itself teems with opportunities for investigation into the female exchange and conflict camouflaged by Heckerling— much can be mined from “the gossipy texture of daily life” (Deresiewicz 14). While we can examine this antagonism with the customary panorama of cultural criticism or new historicism, a backwards gaze into the prehistoric past offers a new “framework” for evaluating observable patterns of human behavior (Geary 247). A recent addition to the theoretical landscape, Literary Darwinism “examine[s] the motivations of characters in [fiction]... concentrating chiefly on the sexual aspects of reproductive success but taking in also... social dynamics and survival issues” (Carroll, *Three Scenarios* 54). For Joseph Carroll, assuming this innovative position “promises discovery [of] things not yet dreamed of... at levels of complexity we do not yet, perhaps, have the skills even to envision” (*Three Scenarios* 64).

In this thesis, I will examine the impact of mate selection dynamics on female-female competition and rivalry in *Emma* by way of a Literary Darwinist approach. Section I references the large body of traditional criticism that assesses female friendship in the novel from a cultural vantage point, including works by Ruth Perry, Laura E. Thomason, Eugene Goodheart, and Shinobu Minma. Section II relies largely on the work of David C. Geary in order to explicate the central evolutionary tenets of female-female competition. Section III shifts focus to the existing evolutionary research set in motion by Joseph Carroll, Jonathan Gottschall, Brian Boyd, Michael J. Stasio, and Kathryn Duncan, all of whom have questioned how “our evolutionary past and our immediate present” are dually represented in literature, and more specifically, in Austen’s works (Boyd). Although they do not reflect on Austen directly, discussions by Lisa Zunshine, Sarah

Blaffer Hrdy, and Nancy Easterlin will offer additional support for an evolutionary reading. After the establishment of a theoretical cornerstone, section IV will explore the ancient adaptations specific to *Homo sapiens* and our closest genetic relatives, the great apes. Because “human behavioral tendencies grow deep in the soil of primate evolution,” I will lay a foundation in primatology by referring to empirical studies performed by Dorothy L. Cheney, Robert M. Seyfarth, Richard W. Wrangham, and Barbara Smuts (Smuts, *Primate* vii). In section V, traditional cultural criticism and evolutionary psychology will unite for a reading of *Emma* that discusses female competition for social dominance, beauty, and musical accomplishment in primitive times and in the nineteenth century. Ultimately, interdisciplinary fields from anthropology to zoology will suggest that Emma’s marriage to the most eligible Mr. Knightley is likely the result, not of fate, but of strategic triumph over a (small) pool of plausible female contenders— a position obtained at the cost of female camaraderie.

There are several latent advantages in an evolutionary reading of *Emma*. First, an evolutionary stance allows for a greater empirical understanding of our behavior as evolved human beings, adding an element of *why* to the cognitive choices we continually make, perceive, and experience. As Chesler explains, “women are not innocent of the betrayals we commit, but our ignorance of what’s going on and why does rob us of the power to act otherwise” (6). Without insight into the ancient forces at work in human genetic code (and thus in the texts humans create), women run the risk of never really understanding a major force in their existence. Recognizing female-female competition as a natural component of human evolution may “liberate women from the bonds of inauthentic ‘niceness’” and entitle them to more authentic encounters and relationships (Chesler 6). When analyzed in this light, Emma Woodhouse becomes a more complex character with struggles that stem from a longstanding

history of human competitive behavior (rather than a “clueless” personality). In the end, Emma’s quest for social dominance, physical beauty, and artistic accomplishment tells the story of embattled female relationships in her cultural milieu, the inherent drive for maximal reproductive fitness, and the place of female-female competition in the evolution of human development.

SECTION I: THE CULTURE OF FEMALE-FEMALE COMPETITION

“Friendship is certainly the finest balm for the pangs of disappointed love” –Austen, *Northanger Abbey*

Chesler points out that an understanding of female interactions based on human evolution is instructive in the sense that “feminist ideology alone does not necessarily help a woman to overcome her hostility toward women” (150). Without an appreciation for the biological foundation of human cognitive development, the interpretation of human behavior is missing a crucial component. Though feminist initiatives may call attention to women’s issues, they do not treat the underlying source of intrasexual friction. Since “our minds evolved by natural selection to solve problems crucial to our survival and reproduction,” our very existence as thinking beings is thanks to primordial environmental pressures, which selected for the adaptations of increased brain size and function (Etcoff 234). Thus, the “call to consider the adaptive background of whatever behavioral phenomenon one chooses to study”—femininity, for instance—has been met with “broad intellectual appeal” because it fuses a wide range of seemingly contrary disciplines such as psychology, biology, anthropology, and primatology (Kenrick 103).

However, a contribution to “unqualified biological determinism” is a perceived hazard of evolutionary study, one that has been fiercely debated in recent scholarship (Richardson 66). As Douglas Kenrick explains, the evolutionary field’s belief in psychological universals is

sometimes misread as a denial of the role of culture in human decision-making or a robotization of human will and choice.¹ In fact, “evolutionary theorists have been considering the interaction between culture and evolution for several decades” and are deeply concerned with the question of how universal tendencies and cultural variations are interlaced (Kenrick 103). To this end, Kenrick reviews several possibilities regarding the “coevolution” of biology and culture (104).

The first is that culture may “self-amplify” biological inclinations by enhancing innate functions. For example, the fact that young men are more prone to physical violence is a widely observable sex difference, but culture may help to emphasize and reinforce this trait via “training in martial arts for boys versus home economics for girls” (Kenrick 104).² The next consideration is whether evolved mechanisms “exert important influences on the selection of cultural practices” or not (104). To illustrate this point, Kenrick explains that raising children apart from their parents is unlikely to become a trend because it is fundamentally at odds with the way helpless human infants rely on their parents for survival throughout early childhood. Finally, Kenrick suggests that culture may have been “designed” to keep egocentrism in check—stealing a meal, for instance, might boost an individual’s survival, but laws against this act reflect a cultural opposition to “universal selfish tendencies” (104). Though the complex correlation between culture and evolution continues to incite curiosity in the academic world, there is now scholarly consensus that “any default assumption that culture regularly operates ‘independently’ of evolved mechanisms” is flawed; it is more likely that “evolved dispositions can be reflected in, amplified by, and opposed by cultural practices” (Kenrick 104).

¹ Robin Dunbar, Louise Barrett, and John Lycett term this “the evolutionary red herring” (3).

² Changing expectations for gender-specific colors for girls and boys (currently pink and blue, respectively) would be another excellent example of the ways in which sex differences are emphasized (or minimized) depending on the cultural moment. See <http://www.smithsonianmag.com/arts-culture/when-did-girls-start-wearing-pink-1370097/?no-ist>

If cultural criticism offers perspective on *how* friendship operates in *Emma* (or simply affirm that it *does*), evolutionary sources may lend greater empirical clarity to *why* friendships bond and break. Together, cultural and evolutionary analyses can be used to broaden and fortify understandings of female-female competitiveness. This dual angle not only adds additional depth and dimension to our interpretation of *Emma* but effectively supersedes what Alan Richardson calls “the insistence on ‘hardwired’ judgments and behaviors that marks too much recent work in what is termed ‘evolutionary literary theory’” (67). It is necessary, then, to briefly consider female relationships both in contemporary society and in *Emma* from a traditional cultural standpoint.

Psychologist Phyllis Chesler’s *Woman’s Inhumanity to Woman* explores the “shadow side” of female relationships (xxii). Although she does consider the evolutionary background of female-female competition, much of Chesler’s study is devoted to real-life observations of girls in the world. She opens by acknowledging the contrast between girls as “friends” and girls as “rivals” or enemies, and explains that the movement of individuals between these categories is often complex, volatile, and anxiety-ridden (xii). Girls want desperately to belong to groups or cliques, and their fear of being left out can be extreme. The “pattern of merging with or breaking from other girls” can become so momentous that girls often refer to their circle as if there is an actual physical boundary around the group—you’re *in*, or you’re *out* (Chesler 117). Though conflict between women has been known to become physical, shifting alliances are largely determined and regulated by “psychological and social punishments” (xii).³ Because “culturally, physical aggression is not acceptable in girls” and “competition is taboo,” girls instead turn to indirect aggression during arguments (93, 131). Patterns of indirect aggression include gossip,

³ Genital mutilation in some parts of the world is a startling example of the lengths that women will go to impose physical damage on reproductive fitness. See Chesler xv.

slander, bullying, shaming, and shunning (excluding a woman from a party or kicking her out of a sorority, for example). However, the key to this type of attack is that “to use [it,] the individual must be able to put his/her intentions to harm another person in a favorable light” so that she does not *seem* cruel or manipulative (121). Lyn Mikel Brown and Carol Gilligan found that in white, middle-class societies, a “tyranny of niceness” reigns supreme as a girl ages, and she increasingly “must be nice in order to have friends” (95). If caught in the act of aggression or meanness, an assailant may herself be slighted—this is why girls actively deny their manipulation and “disassociate” from bad behavior to such an extent that they lack a conscious awareness of their deeds (116). Maintaining this precipitous balancing act, psychologist Ari Kaukiainen says, is a “demanding skill” for any young human, but one that often takes place subliminally (121). And yet, it is girls and not boys who command this territory, thanks to their “greater social skills,” which “may escalate conflicts as well as resolve them” (122). Girls learn early on “that there is ‘danger in authentic encounters’ with other girls,” and become masters of orchestration and artifice (95).

Chesler maintains that the tendency to deploy indirect aggression is seemingly universal for girls, regardless of economic, racial, or religious diversity. To this effect, Chesler references African American actress and writer Anna Deavere Smith, who discovered as a young girl that “girls of all colors have their own ways of bullying and beating each other” after witnessing a Jewish classmate’s public humiliation (97). “It was the first time I saw that a beating—even a public beating—could happen without anyone so much as striking a blow,” she writes (98). This reflection is telling, as it shows how persistent schooling against physical reactions “drives the open expression of anger and hostility inward, where it festers and explodes in other, more acceptable indirect ways” (106). While indirect aggression is manifested differently in various

cultures, it nonetheless has been observed in all corners of the world. However, to situate female-female conflict in the realm of the psychological is by no means to downgrade or minimize its potency—that it has been “deemed unimportant” because of its lack of physical altercations (signifying an immediate threat) suggests a grave misconception of the consequences female conflict can generate (36). In acute cases of female ostracism, suicide has been known (117).

The hostility observed between girls in real-world situations today is mirrored in *Emma*, and many Austen scholars have discussed the discord within the novel’s female population. Ruth Perry argues that the novel explores “the complicated feelings of women characters for one another as they recognize one another’s powers and identify with each other as women” (185). Further, access to Austen’s biographical record allows Perry to see the ways in which Austen’s own participation in a “woman’s enclave” (as a single, unmarried woman) may have influenced her depiction of the “psychic survival” that female companionship could offer (185-86). In the dog-eat-dog marriage market of Regency England, Perry argues, female friendship suffered—women, as competitors for a limited supply of desirable men, could not also be allies. As such, “friendship between women is necessarily problematic in a genre destined to fulfill the marriage plot” (190). The obviously “desirable” friendship between Emma and Jane Fairfax, due to their similar station and age, never comes to fruition for precisely this reason (189). The reasons they *should* be friends (their “abilities and sense”) also mark the reasons they cannot be—they are too evenly matched as rivals (189).⁴ Perry attributes this distance between women to a world in which “social pressure effectively divides women from one another”—what could be a lasting bond is “interrupted” by cultural practices and “compulsory heterosexuality” (196-7). Ultimately,

⁴ Interestingly, Jane and Emma are even more kindred than readers might initially realize. In Austen’s first version of *Emma* (a never-published novel titled *The Watsons*), “they were combined in a single character—Emma Watson, a heroine with Emma Woodhouse’s healthy and blooming looks and openhearted manner, but with the constricted financial and material circumstances of Jane Fairfax” (Perry 194).

“at every turn marriage is inimical to women’s friendship” and Emma experiences this firsthand (192).

While Perry attributes Emma’s challenges to external cultural duress, Eugene Goodheart places the blame more squarely on Emma’s own personal shortcomings. Her life moves from “misunderstanding to misunderstanding, misbehavior to misbehavior, fiasco to fiasco” as a result of her inconsiderate and impulsive attitude (4). An absence of “tact” gets Emma into sticky situations with other women, but more importantly for Goodheart, signals her lack of social intelligence and grace (590). When Emma castigates the loquacious Miss Bates during the Box Hill expedition, for example, she shows her ability to thoughtlessly malign even the most gentle and powerless of individuals (Austen 299). Emma is not “an outsider at war with society,” but she is not at peace with it— she has no friends, and no intimate female relationships to speak of. As Tony Tanner submits, “the ‘real evil’ or terror in *Emma* is the prospect of having no one properly to talk to, no *real* community” (Goodheart 601). For Emma, this prospect appears to be realized.

Like Goodheart, Shinobu Minma believes Emma directly responsible for her poor behavior. However, Minma pinpoints self-deception, rather than foolhardiness, as the agent of Emma’s questionable decision-making. Indeed, the heroine has a habit of cloaking social manipulation in the guise of “kindness” or “good intentions” towards others, especially through her complicated matchmaking schemes (50, 51). This, Minma suggests, “enables one to commit acts which one could hardly commit with an easy conscience if one were fully cognizant of one’s true motives” (51). Emma cannot admit that other, more unpleasant forces (her governess’ marriage, intellectual conceit, or as I will argue, competitive jealousy) may motivate her calculating acts. She makes play of people’s lives and becomes “a disturber of the order of the

community,” but avoids a negative self-image via self-delusion (51). Because Emma’s self-regard is anchored in “sophistry,” any individual who threatens her delusion is rejected (51). Her “constant wish to stand ‘always first and always right’ in the eyes of those around her, and the avid desire for the recognition by others of her preeminence” means that only those who buy into her illusions will last as friends (54). Harriet Smith is one character willing to commit constant “deference” to Emma and follow her with “blind adoration,” but otherwise the heroine’s potential friendship circle is indeed small (54).

SECTION II: THE EVOLUTION OF FEMALE-FEMALE COMPETITION

“The ladies here probably exchanged looks which meant, ‘Men never know when things are dirty or not;’ and the gentlemen perhaps thought each to himself, ‘Women will have their little nonsenses and needless cares.’” – Jane Austen, *Emma*

As Geary suggests, one distinctive moment in our evolution as humans was the divergence of male and female as separate entities that then reproduce sexually. No accident, sexual reproduction has evolved in humankind because of its interrelation with genetic variability and adaptability (Geary 28). Evolving into two separate sexes has allowed our species to survive under potentially “harsh conditions” and adapt to them for increased future survival (Geary 28). Since genetically identical descendants would theoretically die out from one parasitic disease, variability equips humans to stay ahead of contagions and adapt to the microbial threats that accompany changing ecologies (Geary 194).⁵ The immunoresponse hormone MHC (major histocompatibility complex) serves as a model of this principle in the human species. Transmitted by a scent that all humans carry, “immune-system genes are signaled through pheromones, and women are sensitive to and respond to these scents”

⁵ In one study, varied immune systems were selected for in mice and contributed to greater parasite resistance (Geary 30).

especially during ovulation, though they are unconscious of the process (Geary 194).⁶ As Geary explains, the high cost of sexual reproduction (the contribution of only fifty percent of your genes to your offspring) demands big benefits in terms of genetic variation; women inherently choose men with varied MHC, and testing suggests that there are reproductive rewards for pairs who exhibit this genetic difference (Geary 32).

Because “the principal function of sexual reproduction is to maintain genetic and phenotypic variability (i.e., individual differences),” men and women have evolved observable sex differences in terms of physical anatomy and behavior (Geary 31). One example is the difference in selectivity of men and women in sexual encounters, dependent on parental investment. Because women generally make a longer lifetime investment in childrearing (in addition to the initial physical investment of a nine-month pregnancy), they “are, therefore, predicted to be more careful than men in their mate choices for both short-term and long-term relationships” (Geary 177). Jealousy between partners also displays a sex difference pattern—a “long evolutionary history” stands behind men’s sexual jealousy and women’s emotional envy (Geary 192). Because long-term relationships with high-quality men bring resources and therefore benefit women and their offspring, “this emotional attachment may signal risk of abandonment and thus risk of losing the man’s resources. Intimacy is, in effect, a cue to relationship stability and continued investment” (Geary 91).

In groups of multiple males and females, individuals must eventually settle on a mate in order to reproduce. “Mate choice is a key element in reproductive success,” Steven Mithen writes, “as your offspring will inherit some or all of your chosen mate’s looks and behavior” (176-77). Sexual reproduction gives rise to four central “features” that color “human

⁶ Researchers Ober et al. (1992) found that couples with greater MHC variability conceived more quickly and experienced fewer miscarriages (Geary 195).

reproductive dynamics:” male-male competition, female choice, female-female competition, and male choice (Geary 177). In the human species, women carry and bear children. Males therefore compete with other males for physical access to sexually receptive females and the reproductive rewards that follow (male-male competition). Women, who are the primary investors in offspring in 95% of mammalian species, are predicted to be “more choosy in their mate choices” because of a “slower potential rate of reproduction than their male counterparts” (Geary 5). Males compete with one another for the attentions of female investors, and female investors carefully select the best competitors who promise the most supportive resources (female choice). However, when males are more involved in parenting, females spar with other females in order to secure connections with high-investing male partners (female-female competition). When males make significant and long-term individual contributions to parenting, they display the corresponding choosiness for an ideal mate (male choice).

Although mate choice involves variants *and* invariants (or culture *and* evolved biases), the “basic mechanisms” of sexual selection (intersexual choice and intrasexual competition) are the same across species as well as “firmly established” in scientific research (Geary 16, 34). This boils down to the premise that females and males seek traits in the opposite sex that will maximize their own genetic future, which involves a number of trade-offs between indirect and direct benefits for survival and reproduction (Geary 49). These might include health (as an indicator of ability to physically acquire and provide resources), appearance (as a sign of fertility), and social dominance (direct access to resources).⁷

As individuals look out for partners, competition is stimulated in populations by the operational sex ratio (OSR), or “the ratio of sexually active males to sexually active females in

⁷ In the animal kingdom, black spots on female barn owls are preferred by males and have been linked to health and fertility (Geary).

any given breeding area at a given time” (Geary 39). This follows a basic supply and demand design— in an unbalanced OSR, the higher demand for either sex incites competition patterns in the other. The mating patterns of the Japanese macaque, an Old World monkey, show that frequent shifts in the OSR can have a considerable impact on mating behavior. When males outnumbered estrous female macaques, low-ranking males were only successful in 20% of mating ventures (because dominant males commanded the females). When receptive females were more numerous than males, low-ranking males were able to mate 50% of the time (Geary 40).⁸

In human communities, shifts in the OSR can influence the forces of male and female choice. Geary notes that in modern societies, “expanding populations result in an ‘oversupply’ of women because women prefer slightly older marriage partners and men slightly younger ones” (174). Amid a surplus of available women, “men’s mating opportunities increase” and they can choose from a larger lineup of potential partners (Geary 174). However, men tend to express “relatively low levels of paternal investment” in an imbalanced climate because “during these periods [they] are better able to express their preference for a variety of sexual partners” (Geary 174).⁹ In these intervals, then, “the younger generation of women will be competing for marriage partners from a smaller cohort of older men” (Geary 174). And yet, “a different pattern emerges” when a higher percent of the population is male (Geary 174). For example, during a period of western migration in the United States in 1910, American “women demanded more in terms of wealth before they would marry,” illustrating heightened female choice in the atmosphere of an

⁸ Although macaques are not monogamous, they do form “exclusive pair bonds, or sexual consortships, around the time of ovulation” (Melnick and Pearl 126).

⁹ Scholars attribute the high divorce rate and the increase in out-of-wedlock births in the United States between 1965 and the 1970s, for example, to the mixture of an OSR imbalance (oversupply of women) and other cultural factors (Geary 174).

uneven, male-heavy OSR (Geary 174).¹⁰ In the company of an abundance of men, women could afford to be more particular and could “enforce their preferences for a monogamous, high-investing spouse” (Geary 174). An OSR that can change quickly in human populations thus has important implications for the study of competition and choice in a literary work like *Emma*, which itself focuses on one “season” or brief period of time.¹¹

Male-male competition is widely and plainly visible in the natural world. For Charles Darwin, male-male competition was defined by “the law of battle” (561). Male hares will fight to the death, whales may scuffle until their jaws are dislocated, and stags routinely stab one another (Darwin 561).¹² These campaigns are staged over access to breeding females, and the dominant winner attracts both her attention and her endorsement. This explains Darwin’s designation of tusks, horns, and various physical apparatuses as “sexual weapons” (569). The male peacock’s beautiful and bright plumage is another commonly referenced example of male rivalry. Natural selection might have weeded out these feathers if not for *sexual* selection, for there is a high cost associated with these aesthetic traits (the male’s heavy and ornate feathers are impractical and hinder him from predator evasion, and their health requires many nutrients). That this trait has continued to appear in the species suggests that it is a powerful and overt representation of genetic fitness, for “only superior males” can bear the cost of the expensive tail and survive into adulthood (Geary 47). Like many bright animal colors, the peacock’s train carries a warning signal to other aspiring males in the neighborhood.

¹⁰ “In all states,” reports Geary, “wealthier men were more likely to marry than other men, but the strength of this relation increased dramatically as the sex ratio became unbalanced” (174).

¹¹ A fish, the two-spotted goby, shows that the OSR can miraculously change even “within a single breeding season.” The gobies adjust their behavior depending on the OSR, with males competing “intensely” at the onset of the season when females are numerous (to their own peril, as these activities are very “costly”) and females taking on “male-typical behaviors,” such as courting and defending territory, as soon as male numbers dwindle (Geary 40).

¹² As if to add insult to injury, defeated Rhinoceros bulls “never renew their horns” (Darwin 567). They are literally marked as sexually inferior.

While less common than male-male competition and certainly less observed in the natural world, female-female competition does occur in high male parental investment (MPI) situations. Male parental investment is defined as the paternal contribution of both indirect and direct assets to offspring. Indirect support includes “genetic inheritance, which can influence offspring health and development as well as maintain needed variation in an offspring’s immune system and other genes” (Geary 87). Direct support entails “feeding and protecting [offspring] from predators postnatally” (Geary 87). In addition, for “social species” like humans, “investment can also involve assistance in establishing and navigating social relationships” (87). Paternal support offers significant benefits for the short-term (daily sustenance) and long-term prospects of a child (as “early growth” leads to increased health and future “breeding success” [Geary 87]). Thus, with a higher degree of paternal resources at stake, there is quite simply more to be gained from competition for valuable assets.¹³

MPI in humans is a “riddle in terms of the broader evolutionary picture,” since “paternal investment is found in less than 5% of mammalian species” (Geary 145). In most species, including “the two species most closely related to humans” (bonobos and chimpanzees), paternal investment is low because it may heighten “the loss of potential mating opportunities and the risk of cuckoldry” (Geary 175, 156). For humans, however, MPI is “associated with relatively high—roughly 90% to 95%—levels of paternity certainty and with restricted mating opportunities” that accompany the “proximate mechanism” of pair-bonding (Geary 176, 157). Pair-bonding, a strong interpersonal and reproductive partnership between an individual male and female, works to “maintain men’s investment in their partner and children” because it limits extraneous sexual activity and thereby “increase[s] paternity certainty” (Geary 157).

¹³ As Geary notes, “in the most extensive cross-cultural study of the pattern of marital dissolution ever conducted,... inadequate support” was listed as the main reason for divorce in 21 societies (185).

Despite some trade-offs, like the loss of extensive mating opportunities, human fathers do routinely invest more in childcare and family than most other species, so it makes sense that females would contend for the very best of these potential investors. But interpersonal traits also matter, and modern women also contemplate the character of their mates because of the way that “mobile, nucleated, isolated” kin units make “family time” obligatory (Geary 190). In MPI societies, male selectivity also increases, and before committing to a certain woman, men “check out” potential mates and make more conscientious choices. Furthermore, the competitive process does not end with the acquisition of a partner, but is lasting and lifelong— competition continues after marriage through “retention tactics” because a good mate can be lost at any time to another, more promising rival (Geary 237).

Female-female competition plays out in various forms, but as Chesler previously described and Geary confirms, it is often “masked” in the form of indirect or relational aggression (Geary 239). A general lack of empirical research on this topic (undoubtedly *because* of its clandestine qualities) means that relational aggression continues to puzzle those who explore it. What we do know is that the evolutionary history of female coalitions may shed some light on why women come together and sometimes split apart. In the evolutionary world, it may have paid to be popular— “dominant coalitions” have been shown to “have higher lifetime reproductive success than females in subordinate coalitions” (128). For primate species, membership in a coalition guarantees increased access to food sources, grooming, protection from attackers, and even stronger descendants—a connection between community, stability, and a child’s expected lifetime has been shown (253).

However, as Easterlin points out, primatologist Barbara Smuts “points to the significance of weak female coalitions among humans and suggests that the human pair bond may have

evolved to protect against rape” (*Reproductive Resource* 392). Drawing from observations of the primate world, Smuts reports that “strong female coalitions provide protection against male sexual aggression” in primate species (qtd. in Easterlin 392). Male sexual aggression is spurred by an underlying and “widespread conflict of interest between the sexes” in terms of reproductive goals— males are more interested in the *quantity* of mates, while females have a higher interest in mate *quality* (Smuts, “Patriarchy” 5). Primate males are reproductively limited by the “number of matings with fertile partners,” and sometimes use forceful methods to secure mating opportunities (Smuts 5). Sexual coercion is fairly common amongst many monkey and ape species, and rises in frequency and severity when a female is in estrus (sexually receptive). For example, female chimpanzees who do not cooperate with “consortships”— private trips into the forest to mate— are attacked viciously by males until they surrender (Smuts 8). Other species intimidate and neckbite their mates, and mountain gorillas occasionally commit infanticide in order to bring new mothers back into estrus more quickly. For orangutans, “forced copulations appear to be the rule, rather than a very rare exception” (Smuts 11).

Despite ample evidence of male sexual coercion, it is “important not to gain the impression that the male always gets his way” (Smuts 8). Primate females develop “strong, life-long bonds with their female kin, and females cooperate to protect their female relatives against male aggression” (Smuts 9). With the support of alliance groups, females defend infants and even injure or kill threatening males. In the bonobo species, high degrees of female bonding correspond to “a complete absence of male sexual coercion” (Smuts 12).

“Human females,” however, “notably lack such coalitionary support” (Easterlin 392). Most human cultures are patrilocal, meaning that women “disperse” away from kin (Smuts 13). This, combined with comparatively fragile female-female coalitions (compared to the bonobo,

for example), “tend[s] to reduce women’s ability to resist male aggression” (Smuts 13). Pair bonding, however, offers additional protection from sexual coercion or rape by other males. In the Aka society of central Africa, for example, “men typically marry monogamously” and violence between men and women is nearly unheard of (Smuts 21). Monogamy seems to have developed as an adaptation that reduces male aggression and brutality, thereby increasing women’s individual and reproductive success.

The ideal situation for a woman from a reproductive standpoint is a “long-term partner who has good genes (e.g., looks healthy), social influence, and material resources” (Geary 181). Scientifically speaking, the ideal man is tall, athletic, symmetric, and has a V-shape body, large eyes, a big smile, and prominent cheekbones and chin, which are indicative of high levels of the male hormone testosterone, which creates this “chiseled” look (Geary 192). Because of the close connection between symmetry and immune resistance, a “preference for a handsome husband... makes biological sense” (Geary 192). When and if this male presents himself or becomes available, there are likely many females vying for his attention. Women who achieve such a high status match in the twenty-first century are said to have “landed,” “snagged” or even “hooked” the man— these verbs reveal the degree to which women believe they have “won” a kind of competition (the glaring implication being that if she “got” him, someone else did not). In an effort to exploit men’s natural sexual jealousy, some women will even go so far as to use a “decoy” man to attract the attention of another, more prestigious suitor (Geary 200).

However, as the caliber of the individual increases, so do his self-worth, standards, and preferences, for “men are particularly choosy if they are culturally successful and living in societies with socially imposed monogamy” (Geary 205). Monogamy, it is thought, originated in the *Homo ergaster* species after body and brain sizes increased, placing greater “energy

demands” on mothers who could not gather food independently while supervising vulnerable infants (Mithen 185). Bipedalism was accompanied by a narrower birth canal—in order to fit through the passage, babies had to be born prematurely and thus unprepared for immediate independence. As a result, pair-bonding developed once males started supporting their partners and children (Mithen). If a man can bring his success only to one partnership, then, he is more likely to ensure that he is choosing wisely; this creates more pressure on women to perform for these potential paramours and accentuate their own fitness.

As anthropologist, primatologist, and evolutionary theorist Sarah Blaffer Hrdy explains, the striving for a strong mate is not at all shallow or trivial. In fact, “the majority [of primitive women] died without a single surviving offspring because so many of those born never grew up” (7). The life history of Nisa, a member of the nomadic !Kung San tribe in the Kalahari Desert, tells this tale— though she birthed four children, none survived into adulthood, contributing to what Hrdy estimates is a 50% or more child mortality rate in the !Kung community (7). In other words, the inherent struggle to reproduce is real, and success is by no means given. Though modern science has improved infant survival “astronomically” in developed countries, “the chances that a woman in a postindustrial society will die without descendants have not changed that much” (7). With odds like these, any trait that enhances a woman’s reproductive fitness is worth chasing and elevating— and, like so many women before her, Emma Woodhouse becomes involved in this very adventure.

SECTION III: EVOLUTION AND JANE AUSTEN

“[Mr. Weston] had never been an unhappy man; his own temper had secured him from that, even in his first marriage; but his second must shew [*sic*] him how delightful a well-judging and truly amiable woman could be, and must give him the pleasantest proof of its being a great deal better to choose than to be chosen, to excite gratitude than to feel it.” – Jane Austen, *Emma*

Community furnishes an ancient key to survival. As Robin Dunbar, Louise Barrett, and John Lycett explain, “sociality is the consequence of an attempt to cope, in a collaborative fashion, with the challenges of survival and successful reproduction” (90). Researcher Jean Piaget proposed that the ability to engage with the social world begins almost instantly for human infants; within minutes of birth, a baby can distinguish a face from another shape, and by nine to fourteen months, babies use what is known as *shared joint attention* to communicate about objects (Dunbar et al. 48, 50). This sociality then grows exponentially as babies “build up their knowledge in stages” into childhood and adulthood, a process unique to humans (Dunbar et al. 46). Our vast social adaptations are reflected in our physiology— in addition to having bigger brains (compared to body size) than other animals, humans have an especially large neocortex. This is the “outer layer of the brain... within which most of the processes we recognize as conscious thought take place” and is a “primate specialty” (Dunbar et al. 93). Compared to the 10-40 percent of total brain volume devoted to the neocortex in mammals, this area “typically accounts for... around 80 percent in modern humans” (Dunbar et al. 93).

Because Austen’s novels pivot on social exchanges, including those involved in marriage, her canon has received substantial attention from evolutionary, cognitive, and behavioral psychologists and theorists. The precedent these studies have set is twofold: they lay an important theoretical foundation for an evolutionary inspection of the social world in *Emma*, but also reveal how little has been said of female-female competition in a comprehensive manner.

Joseph Carroll is one of the leading researchers working within the literary Darwinist framework. While he also conducts traditional literary analyses, he is convinced that empirical support can and should overrule “casual acknowledgements” when it comes to research— by

translating literary works into mathematical results (via online reader polls), Carroll believes that scholars can arrive at a more scientific understanding of human creations (65). Literature, from this angle, is a valuable resource, since “the quantitative study of literature can shed important light on fundamental questions of human psychology and human social interaction” (51). In “Human Nature in Nineteenth-Century British Novels: Doing the Math,” Joseph Carroll, Jonathan Gottschall, John A. Johnson, and Daniel J. Kruger establish a “central premise” in which “both human nature and literary meaning can be circumscribed, reduced to finite elements, and quantified” (66). In this specific study, the researchers adopt a “minute focus” on “agonistic structure”—in other words, how characters are perceived as “good” protagonists or “bad” antagonists and the evolutionary traits behind such judgments (50). As Carroll and his team find, life and literature are inexorably connected, which provides for compelling and authentic data; readers’ emotional responses to characters mimic their feelings towards real people (51).

Carroll’s focus is not specifically trained on *Emma*, but many of Austen’s female characters are brought in for consideration and subjected to measurement. Although the full statistics are too lengthy for discussion here, a few characters stand out in the “mate selection” segment of the study. Carroll first identifies some basic sex differences between men and women in terms of preferences for marital partners: both sexes value “intrinsic qualities such as kindness [and] intelligence” but “males are predicted... to value physical attractiveness in a mate, and females preferentially to value extrinsic attributes (wealth, prestige, and power) in a mate” (Carroll 58). These differences are “rooted in the logic of reproduction,” and fundamentally in line with Geary’s findings (58). On a graph measuring standard deviations from an average, female protagonists favor *intrinsic* qualities in a mate (measured .53) and female antagonists

favor *extrinsic* attributes (0.64) and show a marked disregard for intrinsic ones (-1.01) (Carroll 59). Protagonist Elizabeth Bennet of *Pride and Prejudice* “scores very high on seeking Intrinsic Qualities (1.15),” in comparison to *Emma*’s Mrs. Elton, an antagonist, who scores a 1.45 for seeking Extrinsic Attributes (Carroll 60). These numbers, while seemingly mechanical, are striking because they show that when a character “deviates from the average, that deviation enters deeply into the imaginative qualities that distinguish one novel from another” (Carroll 60). As Carroll seems to suggest, protagonists generally solicit “soft” qualities like friendliness and antagonists covet material resources and social power. Therefore, when a character diverges from this pattern, she becomes especially memorable. In addition to lending support to an evolutionary reading, Carroll’s statistics show the link between competitive behavior and antagonism in the psyches of readers.

Brian Boyd makes a similar bridge between evolution, literature, and Austen (and employs a metaphor reminiscent of Carroll’s) when he writes that “literature arises out of deep-rooted human needs and capacities” (Boyd). His unpaginated article “Jane, Meet Charles” applies an evolutionary reading to *Mansfield Park* and opens with an important reminder: that our actions today are a response to “what would by and large have contributed to our evolutionary fitness” in the Pleistocene, but not necessarily now.¹⁴ This discrepancy warrants a look at literature from the perspective of survival advantages millions of years ago, as they are still very much ingrained in our behavior. As Boyd suggests, “we haven’t yet had time to lose” old adaptations. When approaching *Mansfield*, then, Boyd looks at the ways in which Austen’s novels are centered on a tale that is literally as old as (human) time—love and sexual choice. In his review, Boyd essentially concludes the following: that the “restricted range” of Austen’s subjects actually adds

¹⁴ Contemporary “sweet teeth” substantiate this point. Although it made sense for our ancestors to consume sugar voraciously whenever possible (as fruit was rare and nutritious), humans now have constant access to sugar and it has become “maladaptive” (Boyd).

to the saliency of human interactions (a nod to Yoder), that Fanny Price's social sensitivity and intelligence ensures her happy-ending marriage, and that "males tend to do the chasing but females do the choosing." Although the article shines as an astute application of ancient principles to modern behavior, I disagree with Boyd's premise that Austen's novels are "overwhelmingly" representative of "female choice" (and thus, by extension, male-male competition). Though Boyd uses the language of female competition ("Fanny [Price] *lands* the best man around," he writes), he surprisingly fails to acknowledge feminine rivalry in Austen.

SECTION IV: LOOKING BACK: ANCIENT ADAPTATIONS

"We have all a better guide in ourselves, if we would attend to it, than any other person can be." – Jane Austen, *Mansfield Park*

Although the history of mankind is complex, far-reaching, and based on limited fossil evidence, genetic findings suggest that the branch to primate life began somewhere around 90 million years ago (MYA) (Mithen 160). A recent addition to the tree, humans detached from our most common ancestor, the chimpanzee, around 5-7 MYA (Dunbar et al. 24). At 2.5 MYA, *Homo* "emerged" on the scene. This stop in our evolutionary journey included larger brain volume, greater heights, an increase in bipedal efficiency, and the use of stone tools (Dunbar et al. 25).) Looking back this far in history seems almost incomprehensible. And yet, "anatomically modern humans turn out to have an unexpectedly recent origin," as DNA analysis reveals that "all humans alive today shared a last common ancestor as recently as 200,000" or possibly 100,000 years ago (Dunbar et al. 26). For most of our evolution, then—millions upon millions of years—our species was perhaps more like our primate relatives than the "humans" we recognize today. Nonhuman primates and humans share a common past— and though we have gone our

separate ways, “we are very firmly embedded in the ape family as the sister species of the chimpanzees” (Dunbar et al. 1).

Toshisada Nishida and Mariko Hiraiwa-Hasegawa have studied male relationships in various primate groups, and found that “in most monkeys with multimale groups, tolerant or cooperative relationships among males are rare or unknown” (174). In chimpanzee and bonobo societies, however, “males have frequent interactions in a variety of contexts” including cooperative alliances, bonds, and coalitions (174). Male chimpanzees spend time grooming and greeting each other with pant-grunts and kissing, and adults often share meat with other group members (including those of lesser status). Nishida and Hiraiwa-Hasegawa report that there is also “considerable male-male tolerance in the context of mating,” with males sharing access to receptive females, but that these peaceful moments can quickly escalate when “tensions” involving dominance ranks flare (175). Geary attributes gradual reductions in physical dimorphism to male coalitional behavior in the evolutionary era— as males increasingly worked together in groups, individual body size became less of a necessity (144).

In one study of chimpanzees, “grooming among adult males was observed more than 4 times as frequently as among adult females” and “males... spent more time in parties than females” (Nishida and Hiraiwa-Hasegawa 174). However, according to Geary, a female predilection for social alliances is “found across historical periods, across cultures, and in the social relationships of chimpanzees” (251). Geary and Nishida and Hiraiwa-Hasegawa apparently do not agree on which sex forms the most active coalitions in the chimpanzee species. The disparity may point to the ways in which “levels of association” between females are less clear-cut than in male groups, and thus more difficult to observe and classify (Geary 174). As Smuts explains, “the fact that a behavior has been observed only among males or only among

females does not necessarily imply that members of the opposite sex are unable to perform the behavior or lack the motivation to do so” (405).¹⁵

Jeffrey R. Walters and Robert M. Seyfarth consider various primates in their discussion of “Conflict and Cooperation.” Their findings confirm that primates also experience constant movement between these two states; the benefits of living in a group setting (such as predator defense and childcare) are balanced and challenged by the costs of sharing resources (306). Several observations stand out especially in this study. The first is the mention of “competitive exclusion,” where a dominant group member “feeds uninterrupted on a large fruit while others sit nearby watching,” for example (306). Though no physical altercation occurs, the indirect aggression is felt by all of the hungry onlookers. “The establishment and maintenance of dominance relationships” therefore permeates primate life through threatening but non-physical campaigns (306).¹⁶ Finally, adult females “occasionally fall in rank” (312). The possibility of this occurrence is enough to “motivate” females to “increase dominance whenever the opportunity arises” (312). These data suggest that indirect aggression occurs in the primate world, and that both youth and the threat of demotion may intensify aggressive behaviors in individual primates.

The forces that guide primate behavior are clearly innate and deeply genetic because primates continue to display competitive behavior even in captivity (Silk 320). According to the tenets of natural selection, competition must be of some worth to a species if it continues to show up in its conduct. Many researchers have therefore documented the advantages of dominance-based rankings in primate societies. Joan B. Silk lists faster physical growth, quicker maturation,

¹⁵ There may be a physiological sex difference behind why women tend to form these support groups— women, as involved listeners, might be more primed for social interactions and bonding. In a study of blood flow to the brain by Dr. Edgar Kenton, “when women listened to the tape of a novel, they listened with both their ‘left and right temporal lobes,’ whereas men listened only with their ‘left temporal lobe’” (Chesler 125).

¹⁶ Walters and Seyfarth also note that for most primate species (yellow baboons and vervets are two), infants enjoy provisional “amnesty” from aggressive behavior, which ends as soon as they reach juvenile status (308). In some cases, juveniles are even more aggressive than adults, as they are setting the tone (and perhaps practicing) for the dominance level they will try to achieve as an adult.

higher survival chance, and more infants as the benefits of competition for resources— those primates with access to high-value resources enjoy these results. In addition, primates who achieve high rank in their group receive more frequent grooming (social reward) and their offspring receive less harassment than other infants (Silk). This is a major source of security when we consider Struhsaker and Leland’s study of primate infanticide as a “widespread phenomenon that is more common than originally believed” and a clear function of sexual selection (as it benefits fathers to remove non-kin infants from their care cycle) (97). If females lose their offspring to infanticide, their reproductive success is obviously and severely compromised. Thus, for the apes that humans call ancestors, it pays to compete for the prize of social dominance.

SECTION V: FEMALE-FEMALE COMPETITION IN *EMMA*: A CASE STUDY

“A lady's imagination is very rapid; it jumps from admiration to love, from love to matrimony in a moment” – Jane Austen, *Pride and Prejudice*

Darwin’s *The Origin of Species* and *The Descent of Man* were published in 1859 and 1871, both many decades after Austen’s death in 1817. Because it was Darwin’s theory that was “truly revolutionary in the history of science,” Austen would not have had access to his groundbreaking evolutionary concepts in her lifetime (Dunbar et al. 1). “Austen may seem a long way from biology” to many readers in fact, as she is “infamous for lack of physical descriptions” and scenery (Boyd; Stasio and Duncan 137). But while Austen may not have been directly familiar with the technical terminology for “mate selection” or even “natural selection,” it is clear that she taps into the basic principles of these processes as she formulates each character and marriage plot.¹⁷ Pair bonding, or marriage, is at the heart of all of Austen’s novels, and in

¹⁷ As Alan Richardson reveals, Austen did have “a keen interest” in the medical sciences of her day even if she was not explicitly “doing science” (82).

them, every incident revolves around a protagonist “choosing and winning the right sexual partner” (Boyd). Her novels culminate only when a heroine has made a match, and all end shortly thereafter.¹⁸ In *Pride and Prejudice*, the last chapter begins on “the day on which Mrs. Bennet got rid of her two most deserving daughters,” and in *Emma*, less than fourteen pages separate Emma’s announcement of marriage to her father and the final words of the volume (Austen 251). This is symptomatic of Austen’s literary interest in the *process* of the catch, more than “the perfect happiness of the union” (Austen 381). *Who will she marry and how will she get him?* are apparently much more important questions than *What will the marriage be like?* This jibes with both evolutionary history and nineteenth-century English culture, in which the *getting* of a prime mate against a field of fierce competitors is the primary battle.

Though too early for Darwin, Austen would have been a witness to and participant in the tense cultural climate surrounding nineteenth-century marriage. To flesh out the historical backdrop of Austen’s life and novels, Roy and Lesley Adkins’ *Jane Austen’s England* pulls from the daily life and primary sources of British citizens—a kind of historical “eavesdropping.” They find that for aspiring brides, “wealth was the key factor. Happiness was of secondary importance. For the upper classes, marriage was essential for the provision of legitimate heirs and for the survival of estates, fortunes, and families. But for women of all classes marriage was crucial, because ways of supporting themselves were severely limited, resulting in the obsession with pairing off daughters with suitable men” (3). Further, with no independent “legal status” offered to women at this time, identity was quite literally determined by a husband, and desirable matches were in short supply (5).

¹⁸ Austen’s preference mimics the configuration that has proven most advantageous for women in the evolutionary environment—for “there is no successfully unmarried woman” in Austen’s canon (Goodheart 597).

At this time, England was embroiled in a series of battles with the French Empire known as the Napoleonic Wars. As a result of the conflict, there were “insufficient numbers of eligible men to go round, particularly with so many fatalities and injuries” (4). The Adkinses estimate that war removed over twenty thousand men from the dating pool each year with over 160,000 total British casualties from 1805-1813 (Burnham). This may have had an impact on the operational sex ratio (OSR), inciting female competition for the increasingly meager supply of men, and favored male choice. An increase of older single women would have also contributed to an increasing stigma regarding “old maid” status, which would almost certainly condemn a woman to permanent destitution (Adkins 15).

Emma may at first seem a confusing choice for a study that seeks to uncover evidence of mate selection and competitive strategies, because its heroine and namesake spends most of the novel rejecting any involvement in the institution of marriage. She appears to take no interest in the competitive process or its potential gains. Nor does she beat around the bush: “I have none of the usual inducements of women to marry,” Emma tells Harriet Smith directly in volume I (Austen 84). She is, of course, right— she is wealthy, supported by her father, and commands both youth and beauty. Though Harriet worries that Emma will become an old maid by avoiding the dating scene, Emma haughtily believes she has nothing to fear since “a single woman, of good fortune, is always respectable” (Austen 85). In this she may also be correct, as a “private income” could protect some unmarried women (Adkins 15).

And yet, Emma fools no one in the novel with her rejection of marriage; in fact, Mr. Knightley dismisses her declarations as “mean[ing] just nothing at all” (Austen 50). He is unconvinced by Emma’s professions, and her obsessive censures of marriage suggest an

underlying preoccupation with it.¹⁹ Her position may make biological sense in terms of the control it fosters— by pretending to be unenthused about marriage (and publicly announcing it), Emma can surreptitiously work on attracting a mate without arousing the suspicions or competition of other women. This, of course, could be an unconscious enterprise. Geary finds that in traditional societies, “young women almost always marry, even if it is not always to the man they prefer” because females do not “typically gain as much as men do” from relationships with multiple mates (236). Even if Emma does not know it, her marriage is already predicted by an evolved bias— pair bonding simply affords too many advantages for women (in terms of reproduction and survival) to be ignored. Considering both the cultural expectations for inheritances and the biological impulse to reproduce, Emma has little pull against the tide of marriage. Austen knows this, too, and her novels act as “textbook case[s] of sexual selection in action” (Stasio and Duncan 138).

Female-female competition is exercised most frequently via relational aggression and is most prevalent in contexts with high male parental involvement (MPI). This is just the situation that presents itself in *Emma*. As Austen makes abundantly clear in chapter I, Miss Taylor (Emma’s former governess) has lucked out with a last-minute marriage to a respectable man, Mr. Weston. This situation, shared so early in the novel’s opening, sets the tone for the importance of marriage for women— “settled in a home of her own... and secure of a comfortable provision,” Miss Taylor has narrowly avoided working for the Woodhouses for the rest of her life (28). While Mr. Weston may have been “perfectly comfortable without a wife,” gallivanting around town and amidst various social circles, it is clear that the same opportunities are not afforded to a single, fortuneless woman like Miss Taylor (29). The union with Mr. Weston, a man of gentility,

¹⁹ Amy Heckerling apparently did not buy that Emma could be this dispassionate about mate selection, either. In *Clueless*, the “Mr. Knightley” character (“Josh”) is represented as Cher’s stepbrother (vs. brother-in-law)— *that* detail deters Cher from pursuing Josh, rather than an indictment of relationships in general.

education, and wealth, furnishes Miss Taylor and any of her potential future children with an “advantage” she could not have otherwise attained on her own in this milieu (28, 30).

With the importance of a pair bond solidified early in the novel, readers can immediately discern that Mr. Knightley embodies nearly all of the qualities of an ideal resource provider. His early presence in the text is obviously a romantic plot device, but it also provides a glimpse of the high-quality resources at stake in the novel. There are a number of subtle details that stand out in Mr. Knightley’s introduction in volume I, chapter I, which support his preeminence as a potential partner. First, Austen immediately sets up his age—“a sensible man about seven or eight-and-thirty,” Mr. Knightley is almost twenty years older than Emma (Austen 26).²⁰ Upon his entrance to the room occupied by Emma and Mr. Woodhouse, Mr. Knightley immediately inquires after Emma’s sister and her children with a “cheerful manner,” suggesting not only his interest in family matters but his interpersonal fluency and already, his potential as a caring parent (Austen 27).

Importantly, Mr. Knightley also possesses social influence— he is “one of the few people who could see faults in Emma Woodhouse, and the only one who ever told her of them,” suggesting that his superior rank, in addition to his seniority and gender, permits a rare frankness of expression (Austen 27). As Emma later reflects to Harriet, “his figure and look, and situation in life seem to allow” for a certain degree of confidence (Austen 46). Finally, Mr. Knightley is placed in significant contrast to Mr. Woodhouse. Compared to Emma’s father, a valetudinarian who worries, frets, and chatters, Mr. Knightley has a “downright, decided, commanding sort of manner” that implies social power and panache (Austen 45). His no-nonsense attitude is further

²⁰ Stewart and Harcourt’s findings that female gorillas display a preference for older and more experienced males for protection show that age gaps are mirrored in the primate world. Bereczkei and Csanaky (1996) found that in humans, women who marry older men have more children, fewer divorces, and higher marital satisfaction (Geary 187).

magnified when set against Mr. Woodhouse's dramatics. In a famous scene, a menacing wedding cake causes "great distress" to Mr. Woodhouse's "nerves" on account of its unwholesomeness (Austen 34). It is difficult to imagine Mr. Knightley, tall and imposing, living in fear of a boiled egg (Austen 38).

In Mr. Knightley, cultural and evolutionary preferences seem to coalesce. Literature therefore holds one advantage over real life; in fiction, Austen can *create* a man that epitomizes the entire suite of female preferences (Geary 199). Mr. Knightley is very much a hot commodity in a small world of few men. On the other hand, Emma is also appealing, with her hazel eyes, large fortune, and "full bloom of health" (49). However, "a preference for a culturally successful marriage partner is not enough in and of itself to constitute a successful reproductive strategy," and men and women may look beyond "traits that signal cultural success" when choosing a partner (Geary 189). "Interpersonal luxuries," Geary explains, are an important component of mate selection if and when the participants are located in a wealthy and stable environment that allows for the expression of the preference (189). In these contexts, individuals can indulge in the traits, such as sense of humor, honesty, and communication, that "will make a long-term relationship satisfying" and pleasant (Geary 189).²¹ As Easterlin asserts, a man "may be every bit as choosy about his long-term mate as is a woman," and both sexes may "often prioritize... personal characteristics in a partner over those ranked high by their mate selection strategies, such as dominance and resource provision or beauty" (*Reproductive Resource* 393).²²

²¹ In two studies performed by D.M. Buss and R.A. Lippa, women rated prospective husbands who were "kind, understanding, and intelligent more highly" than men who were culturally successful but lacked interpersonal strengths (Geary 189).

²² The emphasis on personality, Easterlin believes, is concurrent with the emersion of the "nucleated modern family," which provides the emotional sustenance once supplied by larger kinship "networks" in traditional cultures (Easterlin 393). In this way, "a major sociocultural change... has transformed the modern environment of mate selection" (Easterlin 393).

Intelligence is a particularly appealing trait in affluent societies because it lays the groundwork for “emotional and social fulfillment within the pair bond” (Easterlin 395). In her discussion of female autonomy in Charlotte Brontë’s *Jane Eyre*, Easterlin calls on Geary’s discussion of human preferences to help explain the “intellectual affinity” that unites Jane and Edward Rochester: Rochester “comes to love her for the strength of an autonomous individuality characterized by intellectual curiosity and independence, the very characteristics he prizes in himself” (398). Perhaps the same could be said of Emma Woodhouse and Mr. Knightley. Although Emma is said to suffer from “intellectual solitude” at the start of the novel, conversations with Mr. Knightley provide the mental stimulation and parley she covets (24). A conversation about Robert Martin in Volume I suggests her love of debate: ““We think so very differently on this point, Mr. Knightley, that there can be no use in canvassing it,”” says Emma (Austen 68). Emma’s proficiency with riddles is further confirmation of her cognitive faculties. When handed a charade, Emma “cast[s] her eye over it, ponder[s],” and then quickly “catches” the meaning, “read[ing] it through again to be quite certain” (Austen 74). Meanwhile, Harriet sits “in all the confusion of hope and dullness,” unable to decipher the poem quite as quickly or effectively (Austen 74). Emma’s quick wit, articulation, and canniness make her of equal mind with Mr. Knightley, who is immensely concerned with personal “merits,” has a “liberality of mind,” and believes in Emma’s “good sense” (Austen 131, 132).²³

As Darwin found, a heightened competition accompanies what he terms “double selection”— in a world in which both genders parent and contribute to child-rearing, “the more attractive, and at the same time more powerful men... prefer, and [are] preferred by, the more attractive women” (668). Even as Emma professes her disavowal of marriage, an evolutionary

²³ When Mr. Knightley criticizes Frank Churchill, it is on the grounds that Frank is a “coxcomb” and a “puppy,” who does not “occupy much of [Knightley’s] time or thoughts” (132).

reading reveals simultaneous competitive behavior and strategizing within three categories: social dominance, physical appearance, and artistic ability. These are the channels of female-female competition in *Emma*.

PART I: SOCIAL DOMINANCE

““Dear Harriet!—I would not change you for the clearest-headed, longest-sighted, best-judging female breathing””
Jane Austen, *Emma*

Roy and Lesley Adkins describe Regency England as a time of unrest, in which “the upper classes became fearful that the class structure was under threat” as a result of wartime changes (xviii). In this sense, “Jane Austen’s England was not a tranquil place” and class divisions were “highly stratified at this time” (Adkins xix, xxii). Emma is an unusual Austenian protagonist in that she is situated at the apex of society when the book begins—as the oft-quoted first lines disclose, she is “handsome, clever, and rich, with a comfortable home” (Austen 23). Unlike Fanny Price or even Elizabeth Bennet, who must work their way up in the world, Emma has no climbing to do. Rank matters for women as much as for men, and as Sarah Hrdy has argued, “for many species, female rank is long-lived and can be translated into longstanding benefits for descendants of both sexes. Females should be, if anything, *more* competitive than males, not less, although the manner in which females compete may be less direct, less boisterous, and hence more difficult to measure” (quoted in Liesen 49). Even if Emma has inherited high rank, it is clear that she feels the need to constantly reiterate and preserve it, which she does through a variety of tactics.

Emma’s competitiveness is masked by the behavioral camouflage of her activities. Under the guise of romantic matchmaking, Emma exercises the social control that Hrdy connects to reproductive success. As Goodheart suggests, “the field of Emma’s imagination... is the social

world; her specialty, matchmaking” (597). Claiming her first success in the match of Miss Taylor and Mr. Weston, Emma prides herself on her ability to shape the desires and futures of others. What’s more, Emma finds this enterprise truly entertaining—“it is the greatest amusement in the world!” she confides to Mr. Knightley (28). By “promot[ing] Mr. Weston’s visits,... giv[ing] little encouragements, and smooth[ing] many little matters,” Emma believes herself to be a veritable magician, brewing love out of thin air (Austen 29). In this sense, her unconscious motivations (social control) warp her ability to see the flaws in her abilities *and* the ramifications of her devil-may-care behavior.

But for Ann Thomason, Emma’s “social engineering” is most apparent in her friendship with the illegitimate Harriet Smith (237). Emboldened by her “success” with the Westons, Emma takes her practice to new heights with Harriet, a sweet but malleable young girl. According to Emma, her benevolent attentions are to lower-ranking Harriet’s advantage: “*she* would notice her; she would improve her; she would detach her from her bad acquaintance, and introduce her into good society” (37). From the start, Emma objectifies Harriet and employs the language of use to describe their relationship: “as a walking companion, Emma had very early foreseen how useful she might find [Harriet]” (Austen 39). The disposable resource of “a Harriet Smith,” she muses, is a “valuable addition to her privileges” (Austen 39).

Emma’s control of Harriet’s romantic prospects is of course entirely self-serving. By guiding Harriet away from her intended suitor, the gentle farmer, Robert Martin, and towards a litany of other men throughout the novel, Emma is able to develop a feeling of superiority. Harriet is “exactly the young friend [Emma] want[s]” because she is a project that supplies Emma with feelings of “usefulness” and leadership (39). But there is another reason for Emma’s interest in Harriet; by strategically selecting mates for others, Emma ensures that they will turn

their attentions away from her own reproductive interests. Although Emma claims a desire to see Harriet “permanently well connected” (with the charming Mr. Elton or Frank Churchill, perhaps), her unconscious desire is the removal of a potential rival from her own dating pool (43). One hitch in this theory is the problem of Robert Martin— if Emma wanted to suppress the threat of Harriet, why would she thwart their marriage?

The answer perhaps lies in female-female alliance. By exploiting the “docile, grateful disposition” of Harriet, pretending to have her best interests at heart in “protecting” her from an untoward connection, Emma ensures that Harriet is waiting in the wings as a potential female ally, should the need ever arise (Liesen 49). This is an indication of the “culture of niceness” perceived by Chesler, a protective veil placed over indirect aggression. With absolutely no proof of Harriet’s birth whatsoever, Emma recklessly assures Harriet that she is a “gentleman’s daughter”— the friendless Harriet is especially prone to feel indebted to this perceived altruism and high compliment (43). Though Harriet fawned over “moonlight walks and merry evening games” with Mr. Martin just pages before, she soon thanks Emma for preventing her admiration of such a “clownish” and “plain” man to go any further, thus solidifying Emma’s authority (44).

Mr. Knightley recognizes that the “great intimacy between Emma and Harriet Smith” is dangerous, for Harriet “looks upon Emma as knowing everything” (49). In short, Harriet is an easy target for someone as “clever” as Emma (48). Her blind endorsement of Emma eventually helps to offset the vexation that Emma feels towards Jane Fairfax, another potential rival, later in the novel. In comparison to Harriet, who shares freely and openly (and thus exposes herself to Emma’s designs), Jane is “so cold, so cautious!” (144). Emma laments that “there [is] no getting at her real opinion. Wrapt up in a cloak of politeness, she seemed determined to hazard nothing. She was disgustingly, was suspiciously reserved” (144). Other than operating with “coldness and

reserve,” Emma does not have much justification for her loathing— in a desperate moment, she cites Jane’s babbling aunt as one of *Jane’s* flaws (145).

But though she won’t admit it, what Emma really abhors in Jane is that she refuses to *gossip*, which Casey Finch and Peter Bowen suggest “marks an oblique mode of control” for those who successfully coordinate and disseminate it (544). Roland Barthes once put it less gently, calling gossip “death by language” (Chesler 152).²⁴ When Emma and Mr. Knightley announce their engagement at the end of the novel, for instance, the news “spreads in a kind of chain reaction from Mr. Weston to Jane Fairfax” and then on to Mrs. Cole, Mrs. Perry, and Mrs. Elton at “lightning speed” (Finch and Bowen 543). However, as Finch and Bowen explain, rampant gossip is not just a testament to the small-town nature of Highbury. Nor is gossip trivial or banal, as its usual connotation suggests— in *Emma*, gossip “ceases to be a matter of this or that piece of ‘tittle-tattle,’ this or that idle speculation,” and instead “functions as a powerful form of authority because its source is nowhere and everywhere at once” (545). Indeed, the dissemination of gossip between characters is a source of leverage that complements the novel’s unique narrative style, known as free indirect discourse (FID).

Ian Watt situates FID, which “Austen first brought to fruition,” between two “fundamental narrative modalities of the eighteenth century novel” (Finch and Bowen 545). In the first tradition, the narrator is absent, and the reader is “absorbed into the subjective consciousness of one or more of the characters” (Finch and Bowen 546). In the second, an omniscient or all-seeing narrator wields “an objective, universal understanding” over the work, providing only external insights into character (546). In *Emma*, Austen “reconciles these antithetical modes” with the use of FID, which merges “editorial comments” with “psychological

²⁴ The ability to engage in “informational warfare” has been linked to sex differences, as women tend to remember gossip about rivals better and in more detail than men (Fisher 28).

closeness” (547). The anonymous narrator, who has “public access to any character’s private thoughts,” is also “mildly judgmental,” and thus diffuses various threads of gossip to the reader by “spread[ing] the opinions of certain citizens about others” (546, 548).²⁵ The realm of gossip becomes “the very ground upon which the community is articulated, identified, and controlled” (545). However, because the fountainhead of gossip in the novel is almost always furtive, so is the narrator’s identity. Both gossip and the free indirect style, then, serve as concealed “surveillance” of a given community (549).

As John Bender notes, FID “creates for the reader an ‘illusion of entry into the consciousness of fictional characters” (546). It also embraces a “narrative voice that dips in and out of [the] heroine’s thoughts,” so that a character can be seen from the inside and outside (Oberman 2). By manipulating both third person exegesis *and* a “character’s thoughts in his own idiom,” Austen exposes character psychology from multiple angles (Cohn in Finch and Bowen 547).²⁶ The use of FID in *Emma*, then, means that Emma’s self-reflections and meditations do not always monopolize the mind of the astute reader. Emma’s rumination on a love connection for Harriet is a prime example of FID transmission:

“Mr. Elton was the very person fixed on by Emma for driving the young farmer out of Harriet’s head. She thought it would be an excellent match; and only too palpably desirable, natural, and probable, for her to have much merit in planning it. She feared it was what every body else must think of and predict. It was not likely, however, that any body should have equaled her in the date of the plan, as it had entered her brain during the very first evening of Harriet’s coming to Hartfield. The longer she considered it, the

²⁵ Finch and Bowen posit that “critics have rightly read [*Emma*’s narrator] as feminine” because of its gossipy manner (545). In this way, gossip is not merely “loose talk with women,” but a system that “serves as a genuinely alternative mode of communication for women, who have been historically excluded from dominant discourses” (545).

²⁶ Daniel P. Gunn finds that the narrator, with her ironic tone, “mimics” Emma’s thought patterns (Gunn 41).

greater was her sense of its expediency. Mr. Elton's situation was most suitable, quite the gentleman himself, and without low connections; at the same time not of any family that could fairly object to the doubtful birth of Harriet. He had a comfortable home for her, and Emma imagined a very sufficient income..." (46).

In this passage, it is difficult to parse out where Emma's impressions begin and the narrator's verdicts end. According to Emma, the match is so "desirable, natural, and probable" that she feels everyone in the community must share her impression (46). She takes a certain pride in her vision, congratulating herself on the magnetism of the union. The intrusive narrator, however, casts an ironic shadow on this idea by emphasizing the way in which Emma rushes into her scheme and simplifies the compatibility between two strangers.²⁷ Emma's plan, formed after knowing Harriet for just one night, is hardly a pragmatic coordination of romantic prospects. The paragraph, then, is imbued with double meaning— Emma is thrilled by the clever "fix" she has hatched, but the narrator's sarcastic tone subtly reveals the error of such an inchoate and misguided judgment. The "expediency" of the match is clearly motivated more by Emma's "disposition to think a little too well of herself" than by a careful analysis of the participants (Austen 24).

Louise Flavin explains that FID is always an "echo" of what could otherwise be a character's direct speech (52). In order to demonstrate the effect of FID, Flavin reimagines one of the narrator's early commentaries on Mr. Woodhouse in direct speech. The same process could be performed for the selection above. In dialogue form, Emma's thoughts might sound something like this: "Mr. Elton is perfect for Harriet. They would make a good couple. Everyone thinks so, but I thought of it first, the minute I met Harriet. Mr. Elton is upper class, will not care

²⁷ In the next paragraph, the narrator reveals that in Emma's opinion, Harriet's beauty and Mr. Elton's handsomeness are "foundation enough" for a match (46).

about Harriet's illegitimacy, and is rich." The difference between styles is indeed transparent. "When the character speaks directly," Flavin contends, "the effect is usually believability because no one stands between the character and the reader" (54). Emma's elastic approach to reality reads as fact when presented directly. Without the ironic presence of the narrator, Emma's arrangement seems far more rational and far less impulsive. With FID, however, the cavalier relationship that Emma is proud of "creating" seems somewhat far-fetched, and this faux pas marks a continuation of her chronic self-deception (Austen 324).

If Emma had thought more carefully about the relative ranks of Harriet and Mr. Elton, she would have realized, as Mr. Knightley does several chapters later, that "Mr. Elton will not do" for Harriet (Austen 69). Mr. Knightley, like the narrator, realizes the danger that lurks in Emma's impetuous matchmaking, and confronts her: she "will puff [Harriet] up with such ideas of her own beauty, and of what she has a claim to, that, in a little while, nobody within her reach will be good enough for her" (68). Encouraging Harriet to "marry greatly" is a "very foolish intimacy," Mr. Knightley forewarns, because Mr. Elton is "not at all likely to make an imprudent match" with a woman of no income and uncertain ancestry (69).

In this moment, Mr. Knightley acts as a corrective to Emma and resonates with the narrator as he questions Emma's methods. His direct challenge to Emma's blueprint puts her in a "state of vexation," but only momentarily— as we learn through the intermediary narrator, "let Mr. Knightley think or say what he would, she had done nothing which woman's friendship and woman's feelings would not justify" (Austen 70). She "cannot quarrel with herself" (72). In the end, Emma forges on with her "plans and proceedings," and as the narrator again relays, finds it "much pleasanter to let her imagination range and work at Harriet's fortune, than to be laboring to enlarge [Harriet's] comprehension or exercise it on sober facts" (72). Apparently, it is also

much more agreeable for Emma to attribute her behavior to the smokescreen of female friendship than to egocentric aspirations.

When Mr. Elton later professes that he has “never thought of Miss Smith in the whole course of [his] existence—never paid her any attentions... never cared whether she were dead or alive,” the gravity of Emma’s mistake is uncovered (Austen 118). Mr. Elton has coveted Emma all along, and only because of her dowry of thirty thousand pounds (121). In this sense, Emma was wrong about Mr. Elton’s capital and his sentimental incentives. However, just as Emma regrets her matchmaking and “resolve[s] to do such things no more,” her train of thought is suddenly interrupted by the idea of yet another potential match for Harriet, a “pert young lawyer” named William Cox (123). The narrator recounts that the heroine “stopt to blush and laugh at her own relapse” at this moment, confirming that Harriet’s plight is still cause for Emma’s own amusement (123). Access to this moment, by way of a critical narrator, means that Emma’s distorted views persist for the reader despite cursory moments of introspection.

The influence of FID for Flavin and Oberman, then, is that it “comically undercuts the heroine, creating emotional, intellectual, even moral distance from her” (Flavin 52). “Inattentive readers,” on the other hand, “will be more likely to trust Emma (and so err) when she makes judgments” (Gunn 48).²⁸ A negligent reader, for instance, might attribute Emma’s matchmaking to good-natured friendship or romantic notions of true love, rather than to an attempt to feel powerful and influential.²⁹ Austen’s distribution of irony through the free indirect style renders *Emma* a particularly good choice for a reading of character psychology, therefore, because it reveals a character’s conscious understandings (Emma feels that she is helping Harriet as a

²⁸ Within the text, the mild-tempered Mrs. Weston is one such believer in Emma’s inimitability: “she will make no lasting blunder; where Emma errs once, she is in the right a hundred times” (50).

²⁹ Rachel Provenzano Oberman, alluding to the work of Dorrit Cohn, believes that the misreading of narrative style can have profound corollaries when it “leads to misinterpretations of literary works” (2).

friend) and unconscious motivations (the narrator, and the careful reader, understand that this “aid” is motivated by social control). Ultimately, with both conscious and unconscious thoughts and motives laid bare, the novel cautions its readers against unconditional alignment with Emma. This is important, as it keeps readers from granting Emma impunity. Although “Emma’s sincerity and honesty are often sympathetically felt by a reader—when she admits fault, for example, or expresses her feelings for her father—... the falsity of her excuses and evasions are equally obvious” (Flavin 54).

Emma believes herself to be a proper “judge of female right and refinement” (Austen 69). But how can readers trust any of her judgments if the narrator parodies so many of them? FID puts Emma’s self-perception and motivations in question, which is pivotal to understanding her participation in gossip and her crusade for social dominance. Gossip and social dominance go hand in hand because toxic rumors can be deployed to ruin reputations of potential competitors. Ironically, Emma views Jane’s peaceful attitude and kindness as a direct “provocation,” a calculated “artifice” meant to challenge Emma’s own position as social ringleader (144). According to evolutionary history, Emma does have reason to be jealous—men have been found to systematically prefer kind, gentle women who “score high on warmth and positive emotions” (Fisher, *Empress* 124). Men also prefer fidelity in their partners (as a shield to cuckoldry), and look for women who display loyalty. Jane’s restrained, polite attitude places her squarely within these two categories, and this is precisely why Emma crafts her insults to emphasize these qualities, in an effort to minimize Jane’s inherent advantages. She calls Jane “cold” repeatedly, and even goes so far as to publicly question the providence of Jane’s prized pianoforte (is it from Mr. Dixon, a married man, Emma wonders?) (143).³⁰ Quite simply, Jane refuses to engage in

³⁰ When Jane Fairfax refuses to partake in gossip, she denies Emma access to her conscious thinking.

competition—and if she will not play the game, she cannot be vanquished, and this enrages Emma.³¹

Another basis for relational aggression lies in affective mechanisms, separated between emotions (outward displays such as facial expressions) and feelings (inward conscious representations of emotions). In the human brain, the amygdala serves to “amplify attention to evolutionarily significant forms of information,... and to produce... behavioral biases that are likely to automatically reproduce outcomes that have covaried with survival or reproduction during human evolution” (Geary 257). “The social-emotional processing areas of the prefrontal cortex,” which house the amygdala, “are larger in women than in men” (Geary 358). Although it is difficult to apply categorical study to abstract feelings, these findings support the hypothesis that women may “experience feelings in a more personally intense way than men” (Geary 261). Because relational aggression relies on emotional response (a lie is only powerful because it *hurts*), this suggests that women are not only more capable of generating this kind of aggression but, in reverse, also more psychologically injured by it. This makes backhanded assault an effective tool within the world of female-female competition.

Since many adaptations are geared towards control of “social influence” and resources, there is likely a connection between social dominance and reproductive rewards (Geary 249). Indeed, “the struggle for life” versus the struggle for control of the “resources that support life” is the main force behind all human behavior (Geary 249). Overt female dominance behavior may not be attractive to a potential mate, but it can still foster positive results for an individual.³² For

³¹ Importantly, Emma lacks a mother. Told that Miss Taylor has been Emma’s governess for sixteen years, we learn that Emma knew her mother only until the age of five. Even without extensive instruction in female code, Emma has an innate social wherewithal.

³² Female chimpanzees that achieve high rank have higher reproductive success, and their infants experience less harassment than those of lower-ranking females (Geary 128). In an extreme example observed by Abbott (1993), some dominant females have so much social sway that their mere presence suppresses the fertility of subordinate

women, however, social dominance can come at an interpersonal cost: though dominant women may be powerful, they are usually not well liked. Responders to Joseph Carroll's poll rated Emma an "agonistically ambiguous character"—although readers typically align with and root for the protagonist, they did not for this heroine (64). Though Emma may theoretically achieve reproductive success by dominating other women, readers clearly rate Emma's treatment of women as less than satisfactory. Again, since Carroll found that readers respond to characters as if they are real, these findings are even more compelling. In burning bridges with the women in her world, Emma creates friction with the reader as well.

PART II: BEAUTY

"I bought some Japan ink likewise, and next week shall begin my operations on my hat, on which you know my principal hopes of happiness depend" (Jane Austen to Cassandra Austen, October 1798)

If social dominance is one way for a woman to subdue a potential threat, maximizing and enhancing her personal appearance is another. This process is determined by as many evolutionary undercurrents as social dominance; although Charles Darwin denied that there was "in the mind of man any universal standard of beauty with respect to the human body," this point has been refuted by modern research (651). Nancy Etcoff explores the evolutionary science behind beauty in her study *Survival of the Prettiest*. She finds that a love of beauty is entrenched in our biological makeup, and that universal evolutionary preferences can be ascribed to most of what is considered "beautiful" in the human world. Although environmental trends and cultural movements certainly impact fashion, "there is a core reality to beauty that exists buried within the cultural constructs and myths" (Etcoff 233). Humans are certainly not "conscious of the evolutionary rationale behind their aesthetic reactions," but Etcoff argues that "women [who]

females in the group (Geary 129). That social dominance can have a physiological impact on neighboring females suggests its potency in the primate world, and by extension, our own.

cultivate beauty and use the beauty industry to optimize the power beauty brings” are at a competitive advantage (4).

Readers hardly ever gain access to what a character is wearing or which hairstyle she has chosen in Austen’s works. There is, however, one enthusiastic declaration of Emma’s beauty from both Mrs. Weston and Mr. Knightley in volume I, chapter V. “I shall not attempt to deny Emma’s being pretty,” says Mr. Knightley, to which Mrs. Weston replies:

Such an eye!—the true hazel eye—and so brilliant! regular features, open countenance, with a complexion! oh! what a bloom of full health, and such a pretty height and size; such a firm and upright figure. There is health, not merely in her bloom, but in her air, her head, her glance. One hears sometimes of a child being ‘the picture of health;’ now Emma always gives me the idea of being the complete picture of grown-up health. She is loveliness itself (49).

Unbeknownst to Mrs. Weston (and to Austen), her description of Emma is redolent of evolutionary principles, in which health and attractiveness are tightly linked. “The physical traits that women find attractive in men are very likely to be indicators of the man’s physical and genetic health... in the same way that the long tail feathers of the hummingbird... are an indicator of the male’s genetic and physical quality” (Geary 192). The same holds true for women, and attractive women are “predicted to be physically healthier” because of the connection between “physical attractiveness and good genes” (Geary 192).³³ This is especially important given the historical context of *Emma*. Mr. Woodhouse is in many ways right to fixate upon the health of his friends and family— at the time, England was plagued with a number of “assorted afflictions, including consumption (tuberculosis), gonorrhea, syphilis, malaria, cholera,

³³ Geary issues one important warning: that modern access to health care has likely weakened the “relation between attractiveness and health” in comparison to the EEA (209).

typhus, [and] scarlet fever” (Adkins 209). Adkins and Adkins reveal that smallpox—the prevailing disease of Austen’s time, with a sixty-percent mortality rate—left its patients with “disfiguring scars,” an outward and very public representation of susceptibility to disease (298).³⁴ Emma’s clear complexion and “full bloom” (or brightness of skin) are not only visually appealing but also suggest that she does not bear an infection (Austen 49). Her “grown-up health” represents her genetic fitness (Austen 49; Geary 192).

In a society that found it perfectly acceptable if not preferable for cousins to marry so that an estate could remain in the family (think Mr. Collins and Elizabeth Bennet), it is significant that Mr. Knightley stresses his genetic kin difference from Emma. As Emma and Mr. Knightley prepare to venture onto the dance floor at the Westons’ ball in volume III, Emma pauses to ask if it is “improper” that two friends, who feel like brother and sister, might dance. Mr. Knightley replies: “Brother and sister! No, indeed” (Austen 266). Mr. Knightley, who hardly ever makes exclamatory remarks, seems agitated by the suggestion that he and Emma could be related.

Part of Emma’s allure for Mr. Knightley, who has “seldom seen a face or figure more pleasing [than] her’s,” may be tied to their MHC variance (Austen 49). Though we obviously have no way of empirically testing this in a fictional character (who does not exist!), and “smell is a sense poorly captured in language” besides, the above exchange between Emma and Mr. Knightley is an important hint to genetic variability in the text (Etcoff 238). Research of MHC reveals that higher variance correlates to higher reproductive success. Garver-Apgar (2006) found in one study that “there was a tendency for couples to be more dissimilar on MHC genes than would be expected by chance” (Geary 195). Additionally, sexual interest between couples decreased as MHC similarity increased. Although Austen certainly had no knowledge of

³⁴ In fact, cosmetics may have first originated as a specific disguise for smallpox scars and blemishes (Adkins 140).

hormonal science, she does seem to understand genetic difference as an asset, and codes it in Mr. Knightley's response.

In addition to good health, attractiveness in a woman also signals her fertility. Men, even more than women, regard a "physically attractive partner" as a "necessity and not a luxury," which reflects their desire for a mate with reproductive potential (Geary 207). Though predilections for shapes and sizes of body type vary between cultures and eras, Geary reports a universal male preference for waist-to-hip ratios (WHR).³⁵ The golden number, it seems, is a 0.85 WHR—"women with ratios above this value are at risk of a number of physiological disorders and appear to have greater difficulty conceiving than do women with lower ratios" (Geary 210). Heart attack, diabetes, and stroke are all potential risks of increased WHR, and an extremely low WHR also correlates with health risks (Etcoff 194). On the other hand, women who had a narrow but not excessively small waist (WHR: 0.63) and large breasts experienced "an approximate three-fold increase in the probability of conception" (Geary 210).

Although Austen's description of Emma's "size" is vague, she is "firm and upright," suggesting that her figure is both symmetrical and fit but not excessively thin (49). This correlates with WHR evidence, but is slightly at odds with the statistic that "plump" women are preferred in 44% of cultures worldwide (Geary 208).³⁶ As Etcoff reveals, "there is no evolutionary precedent for the slim ideal" of modern times (203). In fact, "selection should work against such a preference" because food restriction can "disrupt" the reproductive process (Etcoff 203). One explanation comes from food and abundance: plumpness is "preferred and considered beautiful in cultures in which the food supply is unreliable" (Geary 208). That may have been the case for many in England, as war had complicated the notions of peace and plenty— with "scant

³⁵ Etcoff cites an interesting modern example: though 1950s starlets Audrey Hepburn and Marilyn Monroe could hardly be more different in appearance, both had an identical WHR of .70.

³⁶ In *Emma*, the beautiful Harriet Smith is referred to specifically as "plump" (Austen 37).

hygiene” and no refrigeration, food consumption was a legitimate hazard at this time (Adkins 300). A miscalculated bite could spell intestinal worms, food poisoning, and gout for the diner. However, starvation is clearly not a threat in the Highbury parish (Adkins xvii). “For those with money, it was fashionable... to maintain good health or to cure disease,” and Mr. Woodhouse’s repeated calls to the apothecary reflect his status (Austen 34). Within the isolated complex of Highbury, then, “average weight to somewhat slender women are preferred” because “food is readily available” (Geary 208-9). Emma thus seems to fit the evolutionary and cultural profile of an ideally shaped woman.

Age is another factor in mate appeal, and many scientists have probed men’s overt preference for younger women. They have reached the following conclusion: “men’s mate preferences evolved to be sensitive to indications of a woman’s age because age and fertility are tightly linked in women” (Geary 209). An older woman, even if she is beautiful, offers less of a reproductive guarantee than her younger friends— this message comes through even if a man is not cognizant of it. For women, the window of reproductive fitness is short and thus highly competitive, especially if potential providers are limited and biased towards younger partners: “Women’s fertility... peaks at about age 25, and then gradually declines to near zero by age 45” (Geary 209). Women are shown to prefer older and more experienced mates who have acquired the necessary resources to provide for her and her children. On the flip side, “men prefer and marry mates younger than themselves— younger brides have more reproductive years ahead of them than do older brides” (Geary 209). This should *not*, Geary argues, be attributed to a social norm that “men should marry younger women, and women should marry older men,” because teenage boys have been shown to prefer slightly older women (who are more fertile than teenage girls at the time) (Geary 209). So the preference is always linked to *fertility*, rather than age

itself. Emma, at twenty-one, is positioned perfectly on the cusp of maximum fertility. That Emma's age is juxtaposed with her beauty in the first paragraph of the novel insinuates Austen's intrinsic awareness of the association between the two.

But beauty does more than prompt compliments from people like Mrs. Weston and Mr. Knightley; it has serious implications for resource acquisition and reproductive power. According to Geary, "behavioral and physical changes that occur during the 6-day window of fertility make women more attractive to men and thereby better able to influence men's behavior" (Geary 210-11).³⁷ Because health, fertility, and youth are interconnected in women, the woman who possesses them all has the upper hand. If Emma were the only healthy and attractive girl in town, her odds for quickly attracting a long-term mate would likely be strong—she is healthy, "handsome," and young (Austen 23). However, this is not the case, and Austen makes sure that readers are aware of the competing good looks of other single young women, namely Harriet Smith and Jane Fairfax.³⁸

Harriet is introduced as a "very pretty girl," who is "short, plump, and fair, with a fine bloom, blue eyes, light hair, [and] regular features" (Austen 37). In many ways, her semblance is similar to Emma's—both have beautiful eyes, healthy skin, and regular or symmetric proportions. The narrator reveals that Emma knows Harriet "by sight" long before their introduction, and has "long felt an interest in [her], on account of her beauty" (Austen 37). This is the language of a young woman who feels threatened by a rival's attractiveness and hopes to closely monitor her, an example of what Brian Boyd refers to as the human impulse to "monitor ourselves and each other so finely" (Boyd). Jane, too, is "remarkably elegant," with pale, clear

³⁷ In one study, exotic lap dancers doubled their earnings when they worked during their "fertile window" (Geary 211). In another, men rated t-shirts worn by women during ovulation as "more pleasant and sexy," suggesting their increased willingness to invest in these women during this period (Geary 211).

³⁸ Once Mr. Elton marries Augusta Hawkins, only two eligible men (Mr. Knightley and Frank Churchill) remain in Highbury. This creates an unbalanced OSR, in which three women must compete for two men (Geary).

skin and a “size a most becoming medium, between fat and thin” (Austen 143). As to her weight, Emma cannot help but make a jab at Jane, one that is especially slanderous if we consider evolutionary connection between weight and health: if she is between sizes, “a slight appearance of ill-health seem[s] to point out the likeliest evil of the two” (Austen 143). Even as she praises Jane’s grey eyes, long eyelashes, and clear, creamy skin, her jealousy radiates.

One factor unites both Harriet and Jane: their “fair” complexion and coloration. A momentary accent on this detail is worthwhile, as an evolutionary rationale lingers behind this idealized preference. Joanna Pitman has completed extensive research on the significance of hair color in her study *On Blondes*, and finds that in a wide array of artistic and classical representations, such as the Knidos Aphrodite or Botticelli’s *The Birth of Venus*, bloneness typifies the “elixir of youth” (99). The fairest of them all is almost always the blondest, as blonde is the color of childhood and thus has gained a gradual association with fertility in our evolved psyche (114). Because babies are fairer in skin tone and hair tint, Pitman posits that blonde hair has evolved as “part of a package of sexual attraction, an evolutionary adaptation for attracting a mate” (5). Blonde hair, as she notes, is “not intrinsically more beautiful than dark” hair, but has become “associated, through these long evolved mechanisms in the male brain,... with youthful fertility” (5).

Behavioral scientists have also argued that “parental care is inspired by neot[e]ny—the retention of immature features by juveniles” (Monastersky 261). Infantile trademarks, like small noses and mouths, disproportionately large eyes, soft skin, and tiny hands and feet, are perceived as “cute.” This endearing aspect of babyhood is a decisive balance to the demanding, time-consuming, and totally exhausting experience of raising a helpless newborn. In other words, if babies were seen as anything other than adorable, parents might not be as willing to invest in

them with such a high degree of commitment and self-sacrifice.³⁹ I.E. Elia refers to neoteny as a “biofitness asset” because of the “the current evolutionary understanding of attractiveness as something that may give its bearers a biological fitness advantage through: being chosen more often for mating; being more protected and provisioned as a child and mate; being healthier, more sociable, and intelligent; and being more fertile and having more offspring” (168). “Analysis of facial dimensions shows those judged more attractive are more neotenic,” Elia continues, and “neoteny makes faces more attractive to us, when comparing individuals within our species” (169). If bloneness is a hallmark of early childhood, as Pitman suggests, then it follows that neoteny—which incites good parenting, and thus the survival of offspring— should also include an innate preference for light hair.

However, “because only one in twenty white American adults is naturally blonde, and roughly the same ratio applies to white northern Europeans,” true bloneness is quite rare (Pitman 4). And yet, the girlish message it sends is so powerful that cultures have taken drastic measures to artificially create the same result. Pigeon dung, horse urine, white lead, and borax have all been ingredients in women’s hair dye along the way. That Harriet and Jane both embody this cultural and primitive preference further augments their visible sexual and reproductive power. Long hair is especially desirable; like the peacock’s tail, a long or thick mane denotes health and vigor. Frank Churchill (who we will learn is secretly *engaged* to Jane) can barely contain his excitement over Jane’s hair: “but really Miss Fairfax has done her hair in so odd a way—so very odd a way—that I cannot keep my eyes from her. I never saw any thing so outré!—Those curls!—This must be a fancy of her own. I see nobody else looking like her!—I

³⁹ In one study performed by Langlois et al., “mothers of more attractive infants were more affectionate and playful toward their newborn infants in the hospital and at three months than mothers of less attractive infants” (Elia 170-71).

must go and ask her whether it is an Irish fashion. Shall I?—Yes, I will—I declare I will”
(Austen 183).⁴⁰

When Mr. Knightley remarks that Emma does not seem “personally vain, considering how handsome she is,” and that her “vanity lies another way,” he acknowledges something that the reader notices also—Emma is not dramatically superior to Harriet and Jane in looks, so her vanity is born of social dominance and indirect aggression (Austen 48). This explains what critics such as Eugene Goodheart see as Emma’s hubris, or an unrealistic belief in her own jurisdiction over others. And Emma’s behavior is supported by research; women routinely rated better looking rivals as “more distressing” in one study, and these attractive women were targeted more frequently for indirectly aggressive assaults from competitors (Geary 238).

PART III: MUSICAL ABILITY

“It may be possible to do without dancing entirely... but when a beginning is made—when the felicities of rapid motion have once been, thought slightly, felt—it must be a very heavy set that does not ask for more” —Jane Austen, *Emma*

If social dominance and beauty fall short, there is a third province in which Emma may attempt to assert her reign: musical ability. In the cultural milieu of nineteenth-century England, music and dancing were the fabric of both daily life and social events. Jane Austen knew and loved this musical world, as an avid dancer herself (Adkins 219). “The ringing of church bells was the dominant sound in towns and the countryside,” writes Adkins, “with few other noises able to compete” (211). Balls, as the setting of courtship, were defined by their musical offerings— thanks to the rising popularity of composers like Haydn, Mozart, and Beethoven, “music was no longer just an accompaniment to dancing, eating, or singing, but an entertainment

⁴⁰ If the visual impact of a rival seems vague, consider this: one study found that women who viewed images of attractive women showed an immediate increase in the use of tanning beds and diet pills for self-improvement (Etcoff 29).

in its own right” (Adkins 223). One important development was the connection between dancing and leisure; the access to music signaled both wealth and the excess of free time to enjoy it. As Sir William Lucas states in *Pride and Prejudice*, dance is “one of the first refinements of polished societies” (24). Adkins would concur that “dancing was enjoyed primarily by the better-off,” coupling music with the upper echelon (219). The public nature of music meant that proficiency in this area could be “shown off best while actually being accomplished,” intensifying the belief in music as “a social ‘accomplishment’ for women,” which could have important consequences for attracting a mate (Neuls-Bates 73).

The belief in music as an “accomplishment” for young ladies originally derived from “separate spheres” ideology, which permeated English culture between 1780 and 1850. June Purvis believes that “ideas about women’s social position in Victorian society impinged upon and influenced the shape and form of female education”—because women were expected to occupy private spaces, they were “educated primarily for the home” (xiv). Schooling was often performed at home (especially if a family was wealthy enough to afford a private governess), but many girls in working, middle, and upper class families attended outside schools, and a variety of local schoolhouses and boarding schools were available to students. However, despite their location, most schools at this time “conform[ed] to a domestic model of schooling,” in which “schoolmistresses accentuated the domestic character of the houses they occupied” (De Bellaigue 23, 19). To illustrate this point, both Purvis and Christina De Bellaigue reference an 1872 diary entry from student Alice Whichelo: “the schoolroom is just like a drawing-room,” she wrote (De Bellaigue 19). For Whichelo and other nineteenth-century students, school was a familiar extension—both in setting and in experience—of the household.

Curricula varied by school, and even more so amongst students of different social classes. In socially stratified England, a distinction was drawn between “women” and “ladies”—women of the working class busied themselves with utilitarian tasks (like laundry), while ladies of the upper crust enjoyed “leisure” time for matters of etiquette and the arts (Purvis). Education from 1800-1914 adhered to this division. While working-class girls received instruction on “routine domestic tasks,” the middle-class student’s studies were focused on “social priorities,” such as how to carry a teacup from a room without clinking it (Purvis 6). Education, for the well-to-do, was pursued as preparation for a future as a “ladylike wife and mother” (Purvis 65).

Artistic pursuits, as the opposite of “household drudgery,” gave “at least an air of gentility” to education and thus were incorporated into the majority of upper class syllabi (Purvis 6). Because of the close tie between entertainment and the social world, musical practice earned aristocratic primacy. Accomplishments for young ladies, by definition, included “singing, languages, and drawing” (Purvis 6). “The content of education for middle-class girls,” then, “tended to stress ornamental knowledge that might attract and impress a suitor” rather than practical or occupational know-how (Purvis 64). Perhaps as an attempt to emphasize their own perceived supremacy, fashionable boarding schools placed especial focus on the arts: in the 1850s, Marianne Gaskell was “taught harmony ‘as a serious science’” (De Bellaigue 175). As Frances Power Cobbe remembers of her school’s priorities, “at the bottom of the scale were Morals and Religion, and at the top were Music and Dancing” (Purvis 69). By the 1860s, elite English girls spent “40% of a thirty-hour week on French, music, and drawing” (De Bellaigue 173).

By 1867, critics like Jules Simon had begun to express fault with this ratio: “Girls, even in the best boarding schools, receive a futile, incomplete education, entirely taken up with

accomplishments, including nothing serious or edifying,” he wrote (De Bellaigue 166). Challenges to the narrow schooling of girls came in the form of the educational reform movement, which “gathered momentum in the 1850s and 60s” and sought to increase academically rigorous opportunities for women (Purvis 73). But in Austen’s time, decades prior to the call for reform, the polishing of “accomplishments” was still very much in fashion. In *Emma*, then, there are several hints to luxurious education. First, the Woodhouse family has been able to support a governess for *sixteen* years, and second, the pianoforte—the instrument of choice of the upper classes and “genteel schools”—is the only instrument specifically mentioned by Austen (Purvis 71). Emma’s hometown of Highbury also boasts Mrs. Goddard’s “real, honest, old-fashioned Boarding-school,” a place of “high repute” where “a reasonable quantity of accomplishments [are] sold at a reasonable price” (Austen 23).

Although nineteenth century women’s education operated according to cultural ideals for women’s roles (which sought to reinforce boundaries between genders and classes), its standards also reflect an underlying adaptive affinity for tempo and song. As Mithen states and any listener knows, “music moves us” and gives rise to emotional changes (85).⁴¹ Emotions, it seems, have been crucial to human survival—treating an immediate threat with logical calculation and deliberation would be slow and time-consuming. Sentimental connectivity, moreover, has long been understood as pivotal to cooperation between humans in social groups, which has expedited our evolution—the “protective groups” we developed as hunter-gatherers were “essential to species survival” (Easterlin, *Cognitive Ecocriticism* 263). Finally, exposure to music has been linked to stress reduction, increased self-esteem, and sanguine personal relationships (Mithen 97). The cultural ideal of musical training for women is thus built on age-old adaptive

⁴¹ Extensive studies have examined the musical dichotomy between major scales (positive emotions) and minor scales (negative emotions), for example (Mithen).

preferences for the emotive and healing properties of sound and melody. An 1855 article in *The Governess*, which asserted that drawing and music “should be taught ‘not merely as pleasurable pursuits, but with a view to a strengthening of the mental powers in the first instance,’” suggests that a rudimentary awareness of the biological importance of music began long before the twenty-first century (De Bellaigue 175).

The complete evolutionary history of music, however, is a bit murkier. Fortunately, there is Steven Mithen’s *The Singing Neanderthals: The Origins of Music, Language, Mind, and Body*, a comprehensive and meticulous account of the genesis of human musicality from an evolutionary and archaeological standpoint. Before tracing the primatological steps along the way, from the earliest primates to *Homo sapiens*, Mithen begins with an important acknowledgement of the deep-seated placement of music in our evolutionary record. “Without music,” he imagines, “the prehistoric past is just too quiet to be believed” (4). Recognizing the close relationship between music and language, he then challenges Stephen Pinker’s assumption that “music is no more than a spin-off from language and has no biological value,” preferring instead the idea that “music coevolved with language” as an adaptive strategy (5). If the main goal of language is to “communicate ideas of knowledge to one or more individuals,” Mithen believes the same could be said of music (21). Music, even more so than language, conveys *emotion*— it has the ability to change our mood and thus has considerable power, especially for those who create it. “The left planum temporale region of the brain,” the location of language processing, “is larger in musicians than non-musicians” (Mithen 34). With this larger faculty, musicians can “induce” certain moods in others, which has been proven through studies of the physiological changes take place in heart rates, blood pressure, pulse, and breathing when music plays (Mithen 95).

In addition to the benefits that music offers to language acquisition and health, there are attachments between singing, laughing, entertainment, and happiness that follow infants into childhood, adolescence, and adulthood. For Mithen, laughing is an “ancient form of social signaling” that is “more akin to animal calls and birdsong than to human speech” (81). As a reminder, interpersonal traits are an important factor in modern human pair bonding since in most cases the pair spends extensive time together in close quarters. Before the pair bond is affirmed, laughing may have a direct role in flirting— it is hard to imagine a successful date or relationship comprised only of silent staring or scowling (82). Further, one key piece of evidence supports the premise that laughter is an evolved mechanism (rather than a learned behavior): blind infants laugh and smile (82). This innate quality matters because “those individuals in the past who had, by chance genetic mutation, enhanced musical abilities may have gained a reproductive advantage” because of the way “being able to manipulate the emotional states of other individuals” could lead to power and social control (Mithen 98). Likewise, those parents who “use facial expressions, gestures, and utterances to stimulate and communicate with their babies” are essentially “molding the infants’ brains into the appropriate shape” to become socially adept and intelligent (Mithen 84). The implicit assumption in this statement is that the more a parent supplies her child with musical communication, the more socially successful the offspring will be.

Although the vestiges of music and laughter are visible in our world, our closest ancestors, the African apes (gorilla, bonobo, chimpanzee) possess “no special vocal skills at all” (107). Other, more distantly related monkeys have more sophisticated calls (think howler monkeys or female gibbons, who can make one single call for up to 80 minutes during territory disputes). But since our genealogy descends from the apes and we are highly articulate, what are

we missing? Mithen suggests two possibilities: that physiologically, the “anatomy of the ape vocal tract” is not conducive to sound making, and that a lower capacity for theory of mind (and thus, less assumption of knowledge between individuals) eliminates the need for language (116-17). By the time hominids arrived on the planet, however, “intimate communities” were in place, “with each individual having considerable knowledge about all the other members of the group” (126). In this environment, emotional intelligence is an important advantage, for the ability to predict and anticipate the behavior of others is in an individual’s self-interest (so that he can avoid conflict, know whom to trust, etc.). *Homo habilis* was the first species in our lineage to display an “enhanced theory of mind capability” (128). In addition to anatomical updates such as larger brains and advanced vocal tracts in *Homo habilis*, the “selective pressure for this leap in understanding would have arisen from living in large groups and the consequent increase in the complexity of social interactions” (128). Additionally, the move from trees to open grasslands on the savannah in search of animals would have applied selective pressure to “expand their repertoire of holistic, manipulative gestures and calls” during the hunt for meat (134). All of this would have contributed to what Mithen identifies as the noisy world of hominids, a time in which “predator alarm calls, calls relating to food availability and requests for help,” and other babel sounded across the landscape (137).

Living an estimated 1.8 MYA, *Homo ergaster* survived in a warm environment by traveling on two feet; bipedalism put less of the body’s surface area in the direct sun and facilitated the ability to forage food from trees using hands while walking simultaneously (144-45). A larger brain evolved accordingly to deal with the increased cognitive demands of “sensorimotor control” (146). Most significantly, *Homo ergaster* developed changes in the larynx and vocal chords. Thanks to a more erect spinal cord, a longer vocal tract “increas[ed] the

diversity of possible sounds” (146). As the range of possible tones widened, so did preference—this, Nancy Etcoff suggests, is the reason “a beautiful person with a squawking voice will look less attractive” in some cases (236).⁴² Somewhere along the way, the link between musicality and vocal capacity was solidified.

Emma is described early in the novel as a kind of failed artist— a girl whose “many beginnings” and “various attempts” have not been fully realized (Austen 53). “Miniatures, half-lengths, whole-lengths, pencil, crayon, and water-coulours ha[ve] been all tried in turn,” but a lack of patience and practice prevent Emma from seeing her creative projects through to completion (Austen 53). Her musical proficiency has suffered from a similar lack of rehearsal, and “she [is] not much deceived as to her own skill either as an artist or a musician” (Austen 53). But this is not a major setback, as “she [is] not unwilling to have others deceived, or sorry to know her reputation for accomplishment often higher than it deserved” (Austen 53). Emma is quite content to allow others to believe in her abilities as a virtuoso, and her reputation and aplomb are secure as long as she physically avoids a pianoforte. Since Mr. Knightley is the only character who can “see faults in Emma Woodhouse, and the only one who ever [tells] her of them,” it is unlikely that Emma receives many affronts to her ego from the members of her circle (Austen 28).

One problem with Emma’s exaggerated belief in her musical power is that eventually her skills are put to the test in front of a public audience. This occurs in volume II, during an evening at the home of Mr. and Mrs. Cole. After being “entreat[ed]” by Mr. Cole, Emma agrees to play and sing (188). With an awareness of the “limitations of her own powers,” Emma ventures nothing magnificent, opting to play something “generally acceptable” rather than risking

⁴² The male Proboscis monkey has an enormous, rather unsightly nose. However, bigger noses “help to amplify the male’s call” which is a sexually selective advantage (Etcoff 236). For this species, sound may override aesthetics.

embarrassment by pursuing something lofty (188). Moments later, Emma is upstaged by Jane, whose performance is “infinitely superior” both in instrument and voice (188). Though Emma is no maestro, she is acutely aware of Jane’s proficiency and alert to the reverberations it causes throughout the party. As the “sweet sounds” float over the room, Emma realizes that Mr. Knightley is “among the most attentive” listeners and wonders if he is “entirely free from peculiar attachment” to Jane (188-89). Believing him entranced by the siren song of Jane, and lost in a “train of thinking” of her own, Emma’s imagination quickly escalates and she reaches an anxious conclusion: “A Mrs. Knightley for them all to give way to!—No—Mr. Knightley must never marry” (188). In Jane’s performance, Emma is forced to confront not only her own deficiencies but also the power of song in attracting a high-status mate. As it happens, Mr. Knightley would not be the first man to be influenced by Jane’s repertoire. As Mr. Churchill comments to Emma, “I have been used to hear [Jane’s music] admired; and I remember one proof of her being thought to play well:—a man, a very musical man, and in love with another woman—engaged to her—on the point of marriage—would yet never ask that other woman to sit down to the instrument, if the lady in question could sit down instead—never seemed to like to hear one if he could hear the other” (Austen 169).

At this stage, Emma does not consciously discern that she wants Mr. Knightley for herself, but is nonetheless troubled by the thought of a rival—particularly one who belongs to a lower class—claiming him. Her knee-jerk response is strong, and she goes so far as to condemn the imagined match as “evil” (Austen 188). But her jealousy of Jane is best evinced by a renewed interest in piano the very next day. “Unfeignedly and unequivocally regret[ting] the inferiority of her own playing and singing,” Emma resolves to have a go at self-improvement (Austen 190). Indeed, the brief encounter with a rival inspires her to sit “down and practice vigorously an hour

and a half” (Austen 191). When Harriet interrupts and compliments Emma’s playing by likening it to Jane’s, Emma snaps “Don’t class us together, Harriet. My playing is no more like her’s, than a lamp is like sunshine” (Austen 191). Emma clearly feels her inadequacy and bemoans it. Music offers a “unique mnemonic framework within which humans can express... the structure of their knowledge and of social relations,” and as Mithen might add, emotional dispatches (267). Emma’s envy, then, is built upon the implicit (but unconscious) feeling that Jane may be a bit more “emotionally appealing” to a potential mate than herself (Sloboda 267).

Emma’s interest in singing reflects an inherited knowledge of the reproductive advantages that musicality offers. Mithen finds that musical ability is often linked to creativity—in the environment of evolutionary adaptation (EEA) millions of years ago, musically inclined individuals may have also displayed better problem solving and improvisation in crucial life-or-death survival moments (98). He has also researched a connection between music and helpfulness, sometimes given “the Mozart effect” sobriquet (99-100). In an experiment, individuals exposed to a soothing song (Mendelssohn’s “Songs without Words”) volunteered more freely than those who had listened to somber music (John Coltrane’s “Meditations”). This suggests that those who meet with and can create harmonious music may be more attractive mates because of their increased altruism and cooperation. “Listening to Mozart has indeed been shown to improve performance in short-term reasoning tasks,” as “calm and happy moods... can improve creative thinking” (100). In this sense, an appealing mate might be the one who can distribute music to his or her offspring, thus strengthening their cognitive performance (100). Most importantly, however, is the remembrance that when our ancestors lacked language (in the environment in which we evolved) musical communication could have been a powerful tool for

“influenc[ing] the behavior of other individuals” (101). As group dynamics became increasingly involved in survival, social sway would have been a valuable asset (101).

Jane’s appeal as a musician may also relate to what Ellen Dissanayake and Rosemarie Sokol Chang identify as the infant-direct speech unique to mothers, termed “motherese” (Chang 176). “Spoken at a slower rate and with higher and more varied pitch” than adult-directed speech, motherese is an essential part of the attachment vocalizations that connect infants to their caregivers and later, to their communities (Chang 176).⁴³ Correlations have been made between the quality of motherese and infant stress response, suggesting its importance to survival and growth (Chang 181). Nearly universal, “the one culture observed in which mothers make no prosodic alterations toward infants” in one study showed “consistent language delays” (Chang 176). Moreover, the early “protoconversations” of motherese allow children to “practice... doing what is natural and necessary for a particular way of life, as play hunting teaches kittens how to hunt,” and this play precipitates cooperative group behavior (Dissanayake 47). Without motherese, then, infants may lose a foothold in the “social development and... intimate relationships” that result from “forming early and lasting attachments” (Chang 181).

A universal tendency, we continue to use this vocal style because “human infants demonstrate an interest in, and sensitivity to, the rhythms, tempos, and melodies of speech long before they are able to understand the meanings of words” (69). This creates a feedback loop—babies prefer IDS, so IDS is supplied, and then IDS helps them to gain language because certain words are repeated and emphasized. Even though baby talk seems lighthearted and bubbly, the effect it has on a baby’s development is anything but, as scientists have found a “correlation... between the quantity and quality of IDS an infant receives and the rate at which it grows” (72).

⁴³ In 1960s and 70s research, IDS was known as “maternal speech” or “motherese.” The now gender-neutral label IDS implies an “updated view” of both female and male parental involvement (Chang 169).

The “emotional power” involved in IDS improves a baby’s overall health; in one study by Jayne Standley, “singing to babies improved the development of sucking abilities in premature infants” which lead to imperative weight gain (79). Amazingly, the sung-to babies were discharged from the hospital 11 days before the control group. Alison Street confirmed these findings in a home setting when she discovered that of 100 mothers observed, *all 100* sang to their babies at home (79).

As Dissanayake has noted, motherese is a “mutually improvised interaction based on innate competencies and sensitivities” (29). Mithen agrees that “parents largely do this on an intuitive basis—they do not need to be taught IDS” (Mithen 84). Adults in all cultures automatically adjust their rhythm and tone when speaking to a young infant, activating a “special vocal register,” and neonates are “predisposed for rhythmic-modal expressions of mutuality with caretakers” (Dissanayake 30, 49). Therefore, Jane has no more natural aptitude for motherese than any other woman (including Emma). A particularly euphonic voice does not necessarily correlate to finer motherese or, by extension, to better parenting. However, the “temporal length of a poetic line, a musical phrase, and a phrase of speech in adults” has been found equal to the “segmental length of a typical utterance in baby talk” (Dissanayake 38). The fact “that infants are supremely sensitive to this universal measure... and that mothers spontaneously produce it, argues that both the creation and the experience of the temporal arts of poetry, music, and dance... inhere in our fundamental psychobiology—our inner brain sense of rhythm and melody” (Dissanayake 38). Meter and melody thus yoke the intuitively harmonious nature of biological motherese and other, more deliberate artistic representations.

Jane is not a mother, but her musical abilities afford her increased access to artistic displays by invitation. Indeed, by singing well, Jane is invited to sing more often in public. At

the Coles' ball, for instance, Jane's fans have "no mercy on her," requesting her performance so persistently that her "voice [grows] thick" and she nearly "sing[s] herself hoarse" (Austen 189). Could Jane's extended exhibitions possibly trigger intrinsic (though not necessarily sentient) notions of motherhood and of pleasurable mutuality between mother and infant in the minds of the audience, including men who hope to continue their legacy through fatherhood? Because Emma is not good at singing, she sings less—in this sense, she has occasion to showcase her own motherly qualities far less often than Jane. Although Emma is competent, no one "begs" for her songs as they do for Jane's (Austen 189).⁴⁴ If "the intimate relationship between infant and mother... actually led to major human developments" through "heightened human sociality," as many scholars have proposed, then Jane's musical demonstrations may act as subtle, unconscious reminders of her potential as a mother and thus, a valuable mate who can raise robust descendants (Mithen 181). However unconscious or unintentional, an individual's ability to conjure up images of maternity in the minds of potential mates is perhaps one more tiny edge in the competitive race of mate selection.

SECTION VI: LOOKING FORWARD: RETHINKING DARWIN

"I hate to hear you talk about all women as if they were fine ladies instead of rational creatures. None of us want to be in calm waters all our lives." – Jane Austen, *Persuasion*

Emma's aggression reaches its zenith towards the end of the novel, when Harriet expresses her feelings for Mr. Knightley aloud. The ensuing pages overflow with the expression and atmosphere of competition. Though Emma has repeatedly vetoed the idea of marriage for herself *and* pushed Harriet towards other disappointing partnerships, "it dart[s] through her, with the speed of an arrow, that Mr. Knightley must marry no one but herself!" (324). Only when

⁴⁴ Though she is certainly no Mary Bennet, whose cacophony on the pianoforte is the subject of much wincing and ridicule in *Pride and Prejudice*.

confronted with the immediate possibility of *losing* Mr. Knightley to another female competitor does Emma see “it all with a clearness with had never blessed her before” (324). She realizes that “till now that she was threatened with its loss, Emma had never known how much of her happiness depended on being *first* with Mr. Knightley, first in interest in affection” (329). Harriet, then, becomes the chief enemy to Emma’s future and sudden menace to her desired pair bond. Though Harriet has been her devoted and loyal supporter for three volumes, her company is abruptly rejected: “Oh God! that I had never seen her!” storms Emma (327). In a most telling moment, Emma suddenly realizes that if she had allowed Harriet to marry Mr. Martin—a lower-ranking man—this problem would have been avoided. “Had she not... prevented the unexceptionable young man,” Emma thinks, “all would have been safe” (328). Her “folly,” then, is that she allowed a competitor to sneak up unnoticed, potentially snagging the “first-rate” mate of Mr. Knightley and “supplant[ing]” her in the pecking order (329). Even worse, Harriet will become the mistress of Donwell—the “loss” of the estate for Emma will bestow Harriet with all of its resources (335). With the union of Harriet and Mr. Knightley deemed both a “debasement” and an “inferior” match, Emma does not bother to protect Harriet’s reputation or feelings now (328).

Readers can discern that Emma has been quietly competing all along, but Emma feels at this moment that she has been “doomed to blindness” (335). She has often treated Harriet as a rival, but she has not consciously *recognized* her as one until her declaration of love, which breaks the spell of cooperative friendship or alliance. This miscalculation speaks to Emma’s unconscious motivations, which have allowed her to act out against rivalry without necessarily acknowledging it. The inherent danger in the mixture of invisible psychological forces and Emma’s mindreading is that “the process of attributing thoughts, beliefs, and desires to other

people may lead to *misinterpreting* those thoughts, beliefs, and desires” (Zunshine 199). This is the primary source of Emma’s “cluelessness”—human “cognitive architecture” allows her to believe in her powers as a mind reader, but doing so often backfires (Zunshine 199). Believing that Harriet’s love was directed towards Frank Churchill, Emma makes a serious misjudgment that puts her own reproductive success in jeopardy. Luckily, in a flurry of narrative action, Austen reveals that Mr. Knightley has conveniently been in love with Emma all along—confronted with the very real memory of *almost* losing a prime opportunity, Emma briskly reconsiders her previous vendetta against marriage and accepts Mr. Knightley “by hand and word” (342).⁴⁵

Austen wrote widely about how Emma is a character “whom no one but [herself] will much like” (Austen-Leigh 157). Emma is snobby, impulsive, and manipulative. She makes poor decisions and does not always treat people with kindness or respect. However, Emma’s story is one of the turbulent rise and fall of female friendship, which must strike a personal chord in the heart of most women. As Natalie Angier writes, girls “think about their friends on a daily basis and try to figure out where a particular friend fits that day in their cosmology of friendships” (268). Girls form cliques and worry anxiously about group dynamics and stability. Later, “the intensities of childhood friendships, dyads, coalitions, and jihads subside with age, but sometimes just barely” (269). Some “women remain, through much of their lives, unsettled about other women” as the result of early conflict, manipulation, and distrust (269). The “fierceness” of female friendship, however, and a primate past in which female alliance was key to protection, ensures that female bonds persist and are desperately sought after (271).

⁴⁵ Prime, indeed—Mr. Knightley is so considerate that he agrees to live at Hartfield so that Mr. Woodhouse can continue to have Emma’s company. Emma recognizes that she has achieved many “advantages” in finding “a companion for herself” who will make such compromises (Austen 355).

If the spectrum of female friendship is a seesaw, “delicately balanced between competition and cooperation,” Emma models this perfectly with Harriet, Jane, and others (Walters and Seyfarth 306). Readers, too, tend to alternately cooperate and separate from Emma at various points in the text. “Our ability to interpret the behavior of real-life people—*and, by extension, of literary characters*—in terms of their underlying states of mind seems to be such an integral part of being human,” one that allows us to interpret a character’s cognition (Zunshine 195). This is what makes Emma Woodhouse so enthralling, and what makes *Emma* so apropos for a study of female-female competition—the heroine’s behavior evokes both the ancient craving for female alliance and the aggressive “dorsal blade[s]” that women sometimes brandish against one another, and both are legible thanks to theory of mind (267). Whether she is playing protagonist or antagonist, Emma awakens deep-seated impulses of alliance and conflict in readers.

As Mrs. Augusta Elton prattles endlessly about Maple Grove, for example, the reader views Emma somewhat sympathetically. The sheer length of Mrs. Elton’s speeches is overwhelming—in volume II, she speaks continuously for an entire page. She is equal parts obnoxious and pretentious, and as the editor notes, ignorant. Mrs. Elton is fixated on upstaging Emma, and attempts to do this by speaking Italian, ridiculing Hartfield, namedropping members of high society, and referencing fancy destinations such as Bath. Emma, enraged by Mrs. Elton’s “imaginary superiority,” complains to Mr. Knightley: ““A little upstart, vulgar being, with her Mr. E., and her *cara sposo*, and her resources, and all her airs of pert pretension and under-bred finery...And Mrs. Weston!—Astonished that the person who had brought me up should be a

gentlewoman!’” (347, 226).⁴⁶ James Kissane views Mrs. Elton as an “exaggerated” form of Emma, whose “egoism is of a kind to make us, by contrast, respect Emma’s” (179). The parallel between the two women, he argues, “serves to put Emma in a better light rather than a worse one” (Kissane 179).

Interestingly, FID seems to recede somewhat during Mrs. Elton’s scenes, and gives way to direct dialogue—an implication, perhaps, that Mrs. Elton’s gall speaks for itself. However, there is certainly enough FID commentary on Mrs. Elton’s character (she “grow[s] even worse than she had appeared at first”) to formulate opposition in the reader’s psychology (228). Emma’s rant seems entirely founded, and in it, readers may recall their own memories of attempted displacement by a patronizing rival. Mrs. Elton *is* uppity and repellant, and seems even more so to Emma once she takes “a great fancy to Jane Fairfax,” Emma’s competitor (228). As Angier explains, this is typical because “when girls are in groups, they form coalitions of... two against two, or two in edgy harmony with two” (268). Emma explicitly considers the possibility of a strategic coalition, wondering whether Mrs. Elton truly likes Jane or whether “a state of warfare with one young lady might be supposed to recommend the other” (Angier 228). Ultimately, Emma dislikes Mrs. Elton so strongly that she is forced to momentarily reconsider her own rivalry with Jane— “Poor Jane Fairfax!,” Emma muses privately, “You have not deserved this... this is a punishment beyond what you can have merited” (230). In a short amount of time, Emma vilifies a new rival and even briefly reappraises an old one.

When a character that is decidedly less vexatious than Mrs. Elton appears, however, the party lines between reader and heroine shift once more. When Emma is cruel to Miss Bates, her behavior seems appalling:

⁴⁶ Janine Barchas discusses how the word “very” operates as an ironic modifier in *Emma*. When “the heroine sardonically grants that Mrs. Elton is ‘very pleasant and very elegantly dressed,’ for example, “very” is dispatched with sardonic “venom” (313).

“‘Oh! very well,’ exclaimed Miss Bates, ‘then I need not be uneasy... ‘Three things very dull indeed.’ That will just do for me, you know. I shall be sure to say three dull things as soon as ever I open my mouth, shan’t I?—(looking around with the most good-humoured dependence on every body’s assent)—Do not you all think I shall?’

Emma could not resist.

‘Ah! ma’am, but there may be a difficulty. Pardon me—but you will be limited as to number—only three at once’” (Austen 296).

In this exchange, free indirect discourse is a tool that helps to control and disperse a negative review of Emma’s behavior. It is the narrator, after all, who tells us that Emma delivers the insult simply because she “could not resist,” highlighting her malevolence (296). The narrator is also responsible for communicating that Miss Bates scans the crowd hopefully just prior to Emma’s dig, heightening the innocence of the victim. Even worse, Miss Bates does not “immediately catch [Emma’s] meaning,” prolonging her embarrassment (296). Emma traipses off, laughing, oblivious to the pain she has caused. The resulting image is an Emma who acts in “thoughtless spirits” towards an indigent woman who has fallen far in society (297). At this moment, only a callous reader would side with Emma.⁴⁷ We are more likely to align ourselves with Miss Bates, feel the abuse, and think of Emma as an adversary (because every woman has been affronted). Such is the mercurial nature of female friendship, which Austen develops expertly throughout *Emma*—like real friendship, a reader’s alliance with the heroine is “woman-centered, harsh *and* intimate” (italics mine, Angier 284).

Emma’s female relationships are caught in a shifting web of competitive behavior and alliance, which strikes the reader as compelling but also undeniably accurate. And yet, this is

⁴⁷ Even when Emma feels “forcibly struck” by her mistake some pages later, the careful reader notices that this follows only after Mr. Knightley’s upbraiding (300).

dramatically at odds with nineteenth-century standards of “female passivity,” from both a cultural and genetic standpoint. When Darwin claimed that females do not compete, he drew a much more insidious conclusion— that “the intellectual powers of the two sexes is shewn by man’s attaining to a higher eminence, in whatever he takes up, than can women— whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands” (629). To Darwin, the competitive nature of sexual selection propelled men into a state of superior existence, while women have remained meek and devoid of enlightenment. Only men have developed the “courage, perseverance, and determined energy” that “the contest of rival males” brings to human evolution; only men can reach “genius” status (630). Austen fell victim to a similar review when Richard Holt Hutton asserted that she could “never be on a very high intellectual level because she [was] a perfect lady” and too “light, fine, and delicate” for serious thinking or acting (Bautz 25). In this view, women are defined by motherhood and the nurturing it involves, and do not experience or supply the competition necessary for genetic evolution. This is no longer the accepted view in contemporary evolutionary studies. Indeed, if females like Emma Woodhouse *do* compete, as this thesis suggests, then stereotypes are discredited and Darwin’s hypothesis is further contradicted.

Maryanne Fisher posits that dismissals of female-female competition in humans within academia have led to the current state of affairs, an evolutionary history that is “theoretically incomplete” (Fisher 11). For this reason, many evolutionary theorists have challenged the misreading of women as “charming and innocuous” in recent years (Perry 198). Long “mired in maternity,” the perception of women as “passive and noncompetitive... linger[s] to the present day” (Hrdy 17). But “equating a complex organism with a single defining ‘essence,’” such as motherhood, is problematic— though perceived as polar, sexuality and motherhood are

obviously not separate entities (Hrdy xvii). It is entirely possible that women can harbor both competitive and nurturing behaviors, as Hrdy suggests. Joseph Carroll believes that these complicated, animate women are at the heart of nineteenth-century literature; women have a “psychological and moral power” that correlates to their position as influential, socially intelligent characters (66). This contributes to an essential “gynocentrism” in works by Austen, Bronte, and others (66).

Ruth Perry notes the presence of a “blind spot” in the oeuvre of Austen criticism: a habit of staying on “the polite surface of [Austen’s] texts” rather than confronting some of the more unpleasant truths of human interaction (199). Although no critics have focused specifically on female competition in *Emma*, scholars like Maryanne Fisher, Justin Garcia, and Rosemarie Sokol Chang have looked at the ways in which women’s behavior shapes the evolutionary story through the strategizing implicit in female relationships. When Emma asserts her superiority over Harriet, keeps a close eye on peers who are particularly beautiful, or sulks over her deficient musical skills, she adds to conversations which question “the axiomatic position of male-male competition” as “the primary device of human evolution” (5). Female-female competition may be less boisterous, less physical, and less noticeable, but it certainly is not invisible, and evolutionary psychology guides us towards a better understanding of its subtleties. Literature, as a written (and thus permanent) record of human emotions provides an excellent petri dish. If Jane Austen is “as vital today as ever,” as many critics claim her to be, it may be because of the way her stories tug at the evolutionary threads that run through all humans and all of their literary creations (Carson).

Emma may in fact be the truest representative of both the cultural present and evolutionary past because her conscious statements are so at odds with her unconscious

preferences. By employing free indirect discourse, Austen ensures that both are paraded. Despite the “erotic feeling” of her conversations with Mr. Knightley throughout the book, which are evident to the reader (and evidently to Mr. Elton, who remarks that Emma “always meant to catch Knightley if she could”), Emma is shocked to find that she has feelings for him (Goodheart 603; Austen 370). She wonders “how long had Mr. Knightley been so dear to her, as every feeling declared him now to be? When had this influence, such influence begun?” (Austen 327). She marries Mr. Knightley, but without very much clarity as to how or why. Though Emma may not remember her jealous and competitive behavior directed toward various perceived adversaries over the past four hundred pages, the readers have not as quickly forgotten. She neither “understand[s] her own heart” nor her own biology, though we cannot blame her for the latter (Austen 327).

Evolutionary psychology and Literary Darwinism give modern humans unprecedented access to the definitive behavioral knowledge Jane Austen could only estimate. With it, we may reach a higher level of introspection than was possible for Emma. The poet Adrienne Rich has said that “the connections between and among women are the most feared, the most problematic, and the most potentially transforming forces on the planet.” When female-female competition “simmer[s] behind closed doors, so to speak,” it is often ignored or worse, left prone to misunderstanding (Chesler 112). By bringing it out into the light through evolutionary consideration, we not only come closer to understanding ourselves as modern women with immutable prehistoric preferences, but to appreciating the gravity of *our* competition in the larger narrative of human progress.

Here, in the sometimes-choppy waters of female friendship and opposition, women lose and gain—former intimacies sometimes “sink” as competing interests intersect (Austen 380).

But in this way, Austen's depictions of female ties show "relationships that, in their fruitful, liberating ambiguity, continually push beyond conventional categories, conventional boundaries, conventional roles" (Deresiewicz, in Bautz 112). In exposing female conflict in *Emma* rather than cloaking it, Austen may be sentencing one fictional woman to relative friendlessness; but in so doing, she shatters the timeworn assumption that "friendship moves and breathes in a realm of pure ether, utterly free from... competition, aggression, and self-interest" (Sharp 54). Emma is the spokeswoman for the competitive side of "woman's language" in all of its various apparitions, social, physical, and musical; her audacious behavior invalidates old trammels of women's cognitive weaknesses and empowers a new, more tenable evolutionary reading (Austen 372). Perhaps, then, we could all join Austen in appreciating Emma Woodhouse just a little more.

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