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Quantifying Tonal Analysis in
The Mayor of Casterbridge

Models of Tragedy and the Interpretive History of
Mayor **of Casterbridge**

The Mayor of Casterbridge is in basic ways an unusual novel. Its protagonist, Michael Henchard, has personality traits and motivational dispositions that are more typical of antagonists than of protagonists, and Hardy's own perspective on the events seem remote and detached, thus discouraging the reader's own emotional involvement in the story. Because of these peculiar features, *Mayor* constitutes an especially difficult challenge to interpretive criticism, and it is a challenge that previous criticism has been only partially successful in meeting. The main interpretive models that have been made available for *Mayor* presuppose passional involvement with a protagonist and seek resolution in some kind of affirmation embodied in the protagonist's own experience—an affirmation of ethical order, grandeur, freedom, dignity, human amelioration, or a more complete humanity.

We collected data from 85 readers about the characters in *Mayor* and about the readers' emotional responses to the characters. This data suggests an interpretive structure very different from that which is embodied in the interpretive history of the novel. Our data suggest that readers of this particular novel do not commonly experience passional involvement with the protagonist or with the other characters. As many critics of the novel have recognized, Hardy identifies closely with the perspective of Henchard's step-daughter, Elizabeth-Jane, and, for Elizabeth-Jane, the spectacle of Henchard's career culminates in a state of compassionate, detached meditation. That also is a form of resolution, but it is a form different from that of passional involvement with the protagonist.

We shall first give an account of the interpretive history of the novel and then explain the alternatives suggested by our data. Our study of *Mayor* is part of a much larger study of characters in the Victorian novel, generally. The larger study provides the framework of norms within which we assess motives, personality, role assignments, and emotional responses in *Mayor*. Before going into detail about

Mayor, we shall, therefore, explain the design of this larger study and the results we received from it.

To give the reader an adequate orientation to references in the interpretive history of the novel, we shall begin by concisely summarizing the plot. The actions in the plot of *Mayor* are like a roller coaster ride of wildly changing fortunes—especially the fortunes of Henchard, Susan, and Lucetta. In the opening chapter, Henchard is 21 years old. Embittered at being held back and burdened by family responsibilities, he gets drunk at a country fair and sells his wife and baby daughter. Within the next twenty years, he becomes a wealthy and respected corn merchant and is elected *mayor* of the market town Casterbridge. Meanwhile, his wife, Susan, has lived with Newson, the man who bought her. Her child from the marriage with Henchard has died, but she has had another child with Newson. Both children are named Elizabeth-Jane. Newson is lost at sea, and Susan returns to Henchard, deceiving him by telling him that Newson's child, now grown, is his child. He remarries her, but she dies soon after. Shortly after her death, Henchard tells Elizabeth-Jane that she is his daughter and asks her to take his name, but, almost immediately after that, he discovers that Elizabeth-Jane is not, in fact, his daughter. He does not tell her that he had been deceived in believing himself her father, but he becomes cold and hostile toward her. Since her arrival in Casterbridge, Elizabeth-Jane has been romantically interested in Henchard's young protégé, Farfrae, who had come to Casterbridge without place or prospect, but Farfrae loses interest in Elizabeth-Jane and takes up instead with Lucetta, who previously, unbeknownst to him, was Henchard's mistress. Henchard began his relationship with Farfrae by being overbearingly friendly, but he becomes jealous of Farfrae's popularity. Henchard becomes bitterly antagonistic to Farfrae, and they become competitors in business. After Susan's death, Henchard also becomes Farfrae's rival for Lucetta, and her preference for Farfrae embitters Henchard still further. Farfrae and Lucetta marry. In the period of just a few years after Susan's return, Henchard's fortunes have declined drastically, and Farfrae's fortunes have steadily risen. Henchard eventually loses both his wealth and his social position and is compelled to work as a lowly employee for Farfrae, who now dominates the corn trade and also becomes the new mayor of Casterbridge. Henchard attempts to kill Farfrae by throwing him out of a hay loft but relents and breaks down in remorse. Lucetta has become pregnant with Farfrae's child, but her past with Henchard is made public. She becomes hysterical, has a seizure, and dies through complications with the pregnancy. Having lost his worldly position, Henchard seeks solace in establishing a bond with Elizabeth-Jane. They live together companionably for a while, but Elizabeth-Jane secretly

renews her romantic relations with Farfrae, and then her biological father, Newson, reappears. Fearing to lose her, Henchard tells Newson that Elizabeth-Jane is dead. When his lie is about to be discovered, Henchard leaves Casterbridge to take up laboring work in a far district. He returns for Elizabeth-Jane's wedding, but she rejects him. He falls into despair, declines to eat, and dies.

Most commentators who seek to interpret the tonal and perspectival structure of *Mayor* use one of three distinct models of tragedy, or, with whatever cost to consistency, some combination of the three: (1) a model of retributive justice, (2) a model of Promethean Romantic heroism, or (3) a model of redemptive change.[1] John Paterson offers a transcendental version of the model of retributive justice. In his view, tragedy depends on "moral and religious universals" and reaches resolution in vindicating "the existence of a moral order, an ethical substance, a standard of justice and rectitude, in terms of which man's experience can be rendered as the drama of his salvation as well as the drama of his damnation" (151, 152). The role of the tragic protagonist in this scheme is to acknowledge this transcendent ethical order. Henchard offends against the cosmic order, which destroys him, but he also "stands for the grandeur of the human passions" (156). He is thus the tragic agent of a "heroic imagination" (154).

Like the model of retributive justice, the Promethean Romantic model focuses on the assertion of heroic, though destructive, grandeur. George Levine, for example, identifies "the romantic hero" as a figure of "large aspirations" and "uncontrollable energies that destroy with the force of an Alpine torrent" (232). These heroic figures "desire beyond the limits of nature," and they thus exemplify qualities that are "quintessentially human" (232). The tragic hero achieves "a new freedom of imagination" and represents "a new conception of human dignity" (244).

In contrast both to the model of retributive justice and to the Promethean Romantic model, the model of redemptive change deprecates the idea of heroic passion and emphasizes instead the deplorable and contemptible aspects of the protagonist's career. Advocates of the redemptive model, like advocates of retributive justice, require that the protagonist feel contrition for his various misdeeds. As R. H. Hutton conceives it, Henchard's "tragic career of passionate sin, bitter penitence, and rude reparation" serves ultimately to bring him "to a better and humbler mind" (138). In this model, the purpose of tragedy is to exemplify the way in which "circumstance" can serve "to chasten and purify character" (138-9). Elaine Showalter offers a modern feminist version of the redemptive model. In her reading, Henchard undergoes a transformation "from a romantic male individualism to a

more complete humanity" (103). By becoming less male, Henchard becomes more fully human, and he thus becomes "capable of tragic experience" (104).

These three models of tragedy have persisted over decades in which seemingly fundamental changes have taken place in the ideological and philosophical orientation of literary studies, and they have retained their basic structural character through numerous metamorphoses in theoretical concepts and vocabularies—old fashioned humanist, New Critical, archetypal, Marxist, Freudian, deconstructive, feminist, and the various hybrid blends of postmodernism. The persistence of these models suggests that, in important ways, the models function at imaginative levels deeper and more general than the various fashions through which they have retained their basic form. Each model appeals to some historically conditioned articulation of a fundamental disposition in human nature. The model of retributive justice has an affinity with the ethos of the Old Testament, and its proponents are wont also to cite antecedents from Greek tragedy. The model of redemptive change, with its emphasis on salvation through moral transfiguration, has an obvious affinity with the Christian ethos. Like the model of retributive justice, the Promethean Romantic model operates in a cosmic sphere, but it repudiates the justice of the cosmic order and, like the redemptive model, locates its resolution within the affirmation of specifically human qualities. As its name suggests, the Promethean Romantic model is closely associated with the spiritual defiance of a certain phase of Romanticism, a phase identified more with Byron and Shelley than with Coleridge, Wordsworth, or Keats. Each model appeals to a specific emotional range and finds its resolution in the gratification of some deep emotional need—the spirit of justice, the hope of redemption, or the assertion of individual power.

Despite the archetypal scope of the three models of tragedy, none of the models is sufficiently deep and general to give a thoroughly cogent account of the tonal and perspectival structure of *Mayor*. The three models overlap in certain ways but conflict in other ways, and the inadequacies of each, as interpretive models, help to explain the persistence of its rivals. The model of retributive justice eliminates the element of chance in Hardy's vision of the world and adopts a stance of vindictive satisfaction incompatible with his tolerant humanity. The model of Promethean Romantic heroism glamorizes Henchard's character and strikes a note of vainglorious triumphalism incompatible with Hardy's shrewd irony. And the model of redemptive change blurs the essential continuity of Henchard's character and posits a sentimental resolution alien to Hardy's tragic austerity.

At about the time that he was writing *The Mayor of Casterbridge*, Hardy wrote a note in which he formulated a concept of tragedy that contains none of the

distorting impedimenta of the three models that are typically invoked to account for the generic and tonal structure of the novel: "Tragedy. It may be put thus in brief: a tragedy exhibits a state of things in the life of an individual which unavoidably causes some natural aim or desire of his to end in a catastrophe when carried out" (*Life and Work* 182). This definition covers a broad spectrum of works typically regarded as tragic, and it is fully adequate to the situation of *The Mayor of Casterbridge*. It involves no commitment to a principle of poetic justice; it does not require us to derive affirmations of an essential human nobility from the struggles of the tragic protagonist; and it does not presuppose a morally uplifting transformation in the moral constitution of the protagonist.

We need not accept any of the main assumptions that have animated the standard tragic models used to interpret *Mayor*—that the novel must involve passional involvement with a heroic protagonist, that the protagonist must himself achieve an adequate interpretive perspective on his own experience, that the events of the story must affirm the existence of a morally meaningful order, that the story must culminate in the production of sublime affects, that it must exemplify moral improvement, or that it must provide some reassuring image of human goodness or nobility. If we reject these assumptions, we can avoid romanticizing or sentimentalizing the tragic protagonist. Henchard is a powerful, commanding personality, deeply flawed, often misguided, inadvertently self-destructive, and ultimately pathetic. Hardy does not himself feel that Henchard's career is a sublime or ennobling spectacle, and he does not invite the reader to feel that. The spectacle of "*The Life and Death of the Mayor of Casterbridge*"—the full main title of the novel—challenges Hardy to devise a perspective adequate to the contemplation of destructive passions and the mischances of life. Henchard, himself, can attain to no such perspective. He is not a reflective man, and to achieve a philosophic view of his own experience would require powers of detachment and of generalization that are alien to his nature.

One of Hardy's most perceptive critics, Lord David Cecil, observes that while Hardy had rejected Christian beliefs, his ethos remained deeply imbued with Christian values: "The Christian virtues—fidelity, compassion, humility—were the most beautiful to him" (222). In *Mayor*, those qualities are most fully exemplified by Elizabeth-Jane, but the qualities are not gender-specific. In other Hardy novels, they are exemplified by both male and female characters—for instance, by Gabriel Oak in Far from the Madding Crowd, Diggory Venn in The Return of the Native, John Loveday in The Trumpet Major, Giles Winterborne in The Woodlanders, and Tess in Tess of the d'Urbervilles. Hardy, himself, regards all of these characters with

affectionate respect, but, in his more developed powers of reflective contemplation, he also stands apart from them, and above them. In the final chapter of *Mayor*, Hardy evokes Elizabeth-Jane's widest views in her mature life, and, in that evocation, her perspective intermingles indistinguishably with Hardy's own:

> Her strong sense that neither she nor any human being deserved less than was given, did not blind her to the fact that there were others receiving less who had deserved much more. And in being forced to class herself among the fortunate she did not cease to wonder at the persistence of the unforeseen, when the one to whom such unbroken tranquility had been accorded in the adult stage was she whose youth had seemed to teach that happiness was but the occasional episode in a general drama of pain.   (252)

Because she thus also stands apart and above, Elizabeth-Jane is not herself a passional protagonist. So far as the passional drama is concerned, she is only a good minor character. Within the perspectival drama—the struggle to attain an interpretive view adequate to the spectacle of Henchard's life—she is the central character. It is in her mind, and not in that of the protagonist, that Hardy locates his own sense of resolution.

The Design of the Study

The findings we present here on *The Mayor of Casterbridge* are part of a larger study in which we collected questionnaire data on 435 characters from 144 British novels of the nineteenth and early twentieth centuries—from Austen to Forster. We set up two websites with questionnaires. On one website, we listed about 2,000 characters from 202 British novels. We shall refer to this Web site as "the multi-novel website." On the other Web site, we listed six characters from *The Mayor of Casterbridge*. The questionnaires on the two separate websites contained questions that were, for the most, part identical. Respondents were asked to select specific characters and to judge those characters on categories relevant to the analysis of character and to the emotional responses of readers. The categories of analysis in the questionnaires included twelve motives, seven criteria for selecting mates, five personality factors, and eleven emotional responses. The questions about motives, mate selection, and emotional responses were derived from evolutionary psychology, and the questions about personality were derived from the five-factor model of personality. (On the five-factor model, see appendix one.) Respondents were asked also to assign characters to one of four possible roles: protagonist, friend or associate of a protagonist, antagonist, or friend and associate of an antagonist. (Alternatively, respondents could check "other" and thus decline to assign characters to roles.) And, finally, respondents were asked to say whether they wished the character to succeed in his or her hopes and efforts, whether the character had in

fact succeeded, and whether the character's success was or was not a main feature in the outcome of the story.[2]

Our broadest goal in setting up these two sites and collecting questionnaire data was to bring the analysis of character and emotional response within the range of quantifiable information from psychological concepts rooted in an evolutionary understanding of human nature. For the multi-novel website, our more specific goal was to identify the normative "agonistic structure" of the novels of this period—to identify the characteristics that distinguish protagonists from antagonists and major from minor characters. (For convenience, and following popular usage, we refer to protagonists and their associates as "good" characters, and to antagonists and their associates as "bad" characters. We refer to the associates of protagonists as "good minor characters" and to the associates of antagonists as "bad minor characters.") We hypothesized that the features distinguishing good and bad characters, and especially the features distinguishing protagonists and antagonists, would reflect the positive and negative values that authors have invested in their characters and that they have anticipated that their readers will share. We thus aimed at identifying specific links between the constitution of characters and the normative values of authors and readers in the period as a whole.[3]

Our goal in setting up an individual site for *Mayor* was to collect data on enough characters from a single novel to give a comprehensive analysis of the organization of characters and reader responses in that novel. We chose *Mayor* as our focal text for concentrated analysis in part because it is relatively compact, has only a few major characters, and has characters who are very distinctively marked in motives and personality. The six characters we listed from *Mayor* were Henchard (the title character), his wife Susan, his stepdaughter Elizabeth-Jane, his rival Donald Farfrae, Lucetta, the woman for whose favors Henchard and Farfrae enter into competition, and Newson, the sailor who, at the beginning of the novel, buys Henchard's wife and daughter from him. Another reason for selecting *Mayor* as a case study is that it has an unusual agonistic and tonal structure. By using the average scores of the multi-novel website as a frame of reference, we anticipated that we could tease out the structural peculiarities of *Mayor* and draw illuminating interpretive inferences from those peculiarities.

Interpretive commentary, and especially the interpretation of tone, is often regarded as a form of study too subjective and impressionistic ever to be brought within the range of quantification and empirical analysis. By giving a quantitative analysis of the tone in a single novel, we aimed to demonstrate that there need be no aspect of literary study inaccessible to empirical study, and, further, that quantification

could confirm, refine, correct, and develop the insights of traditional interpretive criticism. In our view, the results of the study have fulfilled these expectations.

We made a number of specific predictions about the organization of agonistic structure in the novels of the period. These predictions were based in part on our familiarity with the conventions of Victorian novels and in part on expectations derived from evolutionary psychology. We anticipated that the novels would be "mimetic" or realistic in depicting certain basic motives and dispositions, but we also anticipated that the novels would, on average, reflect the normative value structures of the period. Those normative value structures are rooted in elemental human dispositions, but all elemental human dispositions take on a particular character and tone from the values of a given cultural ecology. We predicted that protagonists would be generally affiliative in their motives—concerned with helping kin and making friends—and we predicted that antagonists would be chiefly concerned with acquiring wealth, power, and prestige. Affiliative behavior is a human universal, and the sympathies of readers are generally excited by characteristics that in actual life they would find appealing. (In warrior cultures, like that of Homeric Greece, the "heroic" virtues of lethal aggression are more prominently displayed than in a bourgeois culture like that of the Victorian novel, but even in heroic literature, the hero generally displays affiliative dispositions for his friends and allies.) Achilles mourns for his dead friend Patroclus. Lear, wandering mad on the heath during a storm, spares a thought of pity for his Fool. Jane Austen's Emma Woodhouse officiously tries to further the interests of her young friend Harriet Smith, and Sara Crewe of Francis Hodgson Burnett's A Little Princess befriends the school dunce, a kitchen maid, and a rat who lives in her garret.

We predicted that protagonists would, on average, be much more concerned than antagonists or minor characters with acquiring education and cultural knowledge. Wit, cleverness, wisdom, and judgment are universally attractive features of human nature. Odysseus is a hero largely because he is shrewd. Romeo, Portia, and Hamlet are witty and eloquent. Elizabeth Bennet, David Copperfield, and Jane Eyre are all intelligent and highly articulate. In an intellectually polished culture like that of the Victorian novel, intelligence manifests itself often in the pursuit of education or cultural attainment. High intelligence and an active mind enable a character to cope more flexibly with contingent circumstances and gain a wider, more adequate perspective on the events with which he or she is involved. Novels embody meaning structures, and meaning structures can best be mediated in the minds of characters who are both intellectually alive and culturally well-informed. The qualities of

mind that motivate educational pursuit are both intrinsically attractive and also functionally necessary for the work of mediating meaning structures.

Our predictions on personality parallel our predictions on motives. We predicted that protagonists and their friends would, on average, score higher on the personality factor Agreeableness, a measure of warmth and affiliation, and we predicted that protagonists would score higher than antagonists and minor characters on the personality factor Openness, a measure of intellectual vivacity. All of these predictions were confirmed. The normative value structures of the novels reflect the fundamental dispositions encoded in affiliative and intellectually responsive behavior.

Our predictions about normative value structures are predictions about how readers will respond to characters—which characters they will like and which they will dislike. We predicted that protagonists would receive high scores on the positive emotional responses "liking" and "admiration" and that antagonists would receive high scores on the negative emotions "anger," "disgust," "contempt," and "fear of" the character. We predicted further that good major characters (protagonists) would most completely realize the approbatory tendencies in reader response and that bad major characters (antagonists) would most completely realize the aversive tendencies. We predicted that the success or failure of major characters, both protagonists and antagonists, would more often be identified as main features in the outcome of the story than minor characters. (This prediction is virtually a tautology. It is designed as a redundant feature for identifying protagonists and antagonists and distinguishing them from minor characters. It serves as a check on the categories of major and minor that enter into role assignments.) Following out the logic of reader response, we predicted that respondents would wish for the success of good characters more strongly than for the success of bad characters. On the basis of our knowledge about the tendency of Victorian novels to end happily, we also predicted that, for this particular set of novels, good characters would succeed more than bad characters. All of these predictions were also confirmed. There is a closed circle from the motives and personality of characters, the emotional responses of readers, and the roles to which readers assign characters.

With respect to the criteria of mate selection, we predicted that male and female characters would diverge along the lines described in evolutionary psychology but that those differences would also be modulated by "agonistic" differences— differences between protagonists and their associates on the one side and antagonists and their associates on the other. The expectations from evolutionary psychology are that male and female characters would both value intelligence, kindness, and

reliability in mates, but that males would give more preference than females to physical attractiveness in a mate, and that females would give more preference than males to wealth, power, and prestige in a mate. There is a clear adaptive logic to these preferences. Evolutionary adaptations must ultimately be keyed in to reproductive success. Physical attractiveness in a female is an indication of health and youth, and hence a proxy for fertility. Wealth, power, and status in males are indications that the male has the resources necessary to provide for offspring.[4] In addition to predicting that the novels would reflect the basic adaptive dispositions of human mate selection, we predicted that mate selection would be heavily inflected by the same kinds of values that enter into shaping agonistic roles in the other categories of analysis. We predicted that protagonists would, on average, give stronger preference than antagonists to intelligence, kindness, and reliability. All of these predictions were confirmed.

We solicited participation in the multi-novel website by directly contacting several hundred professors who teach Victorian fiction and by broadcasting appeals over relevant listservs. We received 1,470 responses to the questionnaire. (Two hundred and six characters received responses from more than one respondent. Elizabeth Bennet from Pride and Prejudice received 81 responses, and the eponymous Emma and Jane Eyre were not far behind.) The responses produced data that we distilled through a statistical process ("factor analysis") into a more condensed set of categories. From 12 motives, we produced five motive factors; from seven mate-selection criteria we produced three mate-selection factors; and from 10 emotional responses we produced three emotional response factors. For instance, under motives, factor analysis revealed that the desire for wealth, the desire for power, and the desire for prestige cluster together, forming a single factor that we call "Social Dominance." Under emotional response, the emotions of anger, disgust, contempt, and fear of a character cluster together, forming a single factor that we call "Dislike." Under mate-selection criteria, the criteria of intelligence, kindness, and reliability cluster together, forming a single factor that we call "Intrinsic Qualities." By dividing the four agonistic character sets into male and female sets, we formed a total of eight character sets. For each of these characters sets, we created profiles in each of the categories of analysis—for physical attractiveness, age, motives, mate selection criteria, personality, emotional responses, and the criteria of role assignments. Finally, we examined inter-correlations among all the main categories of analysis, independently of role assignments.

We solicited participation in the *Mayor* study by directly contacting scholars who had published on Hardy and particularly on *Mayor* or on other Hardy novels.

We also advertised the study on the listserv of the Thomas Hardy Association and listservs associated with the study of Victorian literature. All participation was anonymous, but we collected information about respondents' age, sex, level of education, when and why they read the novel, and whether they had published on *Mayor* or other works of Hardy. By analyzing this information, we determined that a total of 85 individual coders responded to the survey. Fifty-one were males, 34 females. The youngest respondent was 23, and only eight respondents were under the age of 30. All had college degrees. Nine had a bachelor's degree, 21 a master's, and 55 a doctorate. Twenty-five had published on *Mayor*; another 23 had published on some other novel by Hardy; and another 10 had published on some other aspect of Hardy's work. Thus, a total of 58 out of the 85 (68%) had published on some aspect of Hardy's work. Sixty-seven respondents reported having read the novel within the past five years, and 31 within the past year. Fifty-five read it either for teaching a class or for "professional purposes." In sum, almost all the respondents were very familiar with the novel. A number of respondents completed more than one protocol, and a total of 124 protocols were completed.

To assess the level at which respondents agreed in their assessments of the characters, we conducted "alpha reliability estimates." In most psychological research, alpha values around .70 are considered acceptable, and alphas in the .80 to .90 range are considered good. Values above .90 are normally achieved only by trained professionals. The average alphas across all categories for the *Mayor* respondents is .84. The lowest alpha values were for a minor character (Newson), who received only five codings. If we exclude Newson's alpha values, the average alpha values across all categories is .89. In other words, there was a high level of consensus among the respondents on all the substantive categories of analysis. Role assignments are a different matter, and we shall discuss those below.

The questions in the questionnaire are designed to produce summary impressions about characters. Respondents are required to assess how much any given motive counts in the total set of all motives over the span of that part of a character's life that is depicted in the novel in which the character appears. If motives change in changing circumstances, or if one set of motives conflicts with another set, the respondents must weigh those differences and choose a score that reflects the importance of that motive within the total economy of motives that regulate that character's life. Similar considerations apply to other categories. In the category of emotional responses, for instance, a respondent might be angry at a character for certain kinds of behavior, yet still feel great sadness for misfortunes that befall the character. The scores that are registered for each emotion must be weighed in

proportion to the total range of emotional effects produced by any given character over the whole range of his or her appearance in a novel. The use of composite summary judgment inevitably entails some loss of complexity and nuance in detail. Nonetheless, as the responses to *Mayor* reveal, the categories we have used make it possible to capture the main outlines of characters even if, like Henchard, they are complex and change over time.

"Interest" as a Key to the Tonal Structure of *Mayor*

Had we started with *Mayor*, and studied it alone, we could never have derived a clear idea of the standard agonistic structure of the novels of the period. The consensus level (including missing values) for assigning characters to roles in *Mayor* is low (69%, in contrast to 81% for all 206 multiply coded characters in the multi-novel website), and the assignment of roles puts strong pressure on the standard agonistic logic articulated in the relations among personality, motives, mate-selection criteria, and emotional responses. The consensus rating on Henchard, the title character, is fairly high (88%). Fifty-six out of 64 respondents identify Henchard as the protagonist. But, compared to the profiles from the multi-novel website, Henchard's profile in motives and personality is more like that of an antagonist than that of a protagonist. His predominating motives are those of achieving wealth, power, and prestige; his scores on affiliative behavior and affiliative personality traits are low; he does not score high on cultural interests; he is highly unstable emotionally; and he receives high scores on the emotional response factor Dislike. Henchard comes into sharp conflict, in one way or another, with Farfrae and with Newson, and, as a result, those two characters are identified as antagonists, but their scores on motive factors and personality factors are not like those of standard antagonists. Newson's profile is that of a good minor character. In motive factors, Farfrae's profile combines protagonistic and antagonistic features, but his personality profile is emphatically that of a protagonist. (See Appendix Two for graphs displaying the data on motives, mate selection, personality, and emotional responses to some of the characters in *Mayor*.)

In the multi-novel website, the one central motive factor that distinguishes protagonists, both male and female, from all other character sets is a factor we label "Constructive Effort." It consists of two chief elements: affiliative and altruistic social behavior, and creative and culturally acquisitive intellectual interests. Henchard's stepdaughter, Elizabeth-Jane, displays a high level of Constructive Effort, and her personality also reflects features typically associated with protagonists. She scores low in Extraversion and high in Agreeableness, Conscientiousness, and

Emotional Stability. Despite her protagonistic features, our respondents affirm that the success or failure of her hopes and efforts is not a main feature in the outcome of the story, and they identify her as a good minor character, that is, as the friend or associate of a protagonist. That role assignment corresponds to the assessment of her role in most of the critical commentary on the novel. Elizabeth-Jane is clearly not a protagonist, but she, nonetheless, has a crucially important function in the story. She provides a point of view wider and wiser than that of any of the other characters. Her own success or failure is not central to the outcome of the story, but her perspective on the success or failure of other characters provides a standard of judgment that is close to Hardy's own. That standard modulates the emotional and tonal quality of the story and helps to guide the reader in gaining a perspective on the meaning of the story.[5]

The criteria that enter into mate selection typically differ among males and females in both good and bad character sets. Male protagonists tend to set a high value on Physical Attractiveness, some value on Intrinsic Qualities (intelligence, kindness, and reliability), and little value on Extrinsic Attributes (wealth, power, and status). Female protagonists tend to set the highest value on Intrinsic Attributes, a moderate value on Extrinsic Attributes, and little value on Physical Attractiveness. Male antagonists, curiously, score below average on all criteria for selecting mates. That is, they have no particular preferences. Female antagonists, in contrast, place the highest value on Extrinsic Attributes, slight value on Physical Attractiveness, and almost no value on Intrinsic Attributes. As the unusual structure of motives and personality in *Mayor* might lead us to anticipate, mate selection in *Mayor* disrupts these usual patterns. Henchard and Farfrae vie for Lucetta, and, in pursuing her, they both mingle protagonistic and antagonistic features. They are strongly moved by her Physical Attractiveness but give no heed to her Intrinsic Qualities. They both display interest in her Extrinsic Attributes. In selecting Henchard, Lucetta displays the pattern of a typical female antagonist; she is interested only in his wealth, power, and prestige (External Attributes). In selecting Farfrae, in contrast, she is moved by all three criteria, though least by his Intrinsic Qualities. In a standard romantic comedy, the normative or model couple marries at the end of the story. Elizabeth-Jane and Farfrae marry at the end of this story, but their mate selection pattern is unusual. In selecting Farfrae, Elizabeth-Jane gives highest priority to Intrinsic Qualities, but she also places a considerable emphasis on Physical Attractiveness. In selecting Elizabeth-Jane, Farfrae, in contrast, gives little heed to Physical Attractiveness. He gives some regard to Intrinsic Qualities, but, contrasted with his interest in Lucetta, his interest in Elizabeth-Jane seems, in its romantic aspect, rather tepid.

Our research design does not aim directly at analyzing the complex interactions in point of view among the author, the characters, and the readers, but the elements of our design enable us to get at this perspectival dimension indirectly. The relations among the role assignments, the constitution of character, and the emotional responses of readers give the necessary clues to the peculiar perspectival and tonal structure of this novel, and by assessing that tonal structure, we can make reasonable inferences about the specific kind of psychological work this particular novel is designed to accomplish both for the author and for the reader.

All novels perform some kind of psychological work. They activate the emotions and imaginative responses of readers and lead the readers through an integrated emotional process culminating in some kind of conclusion or point of rest ("resolution"). Most of the novels in our data set seek in a fairly simple and direct way to involve the reader in the story, to engage the reader's sympathetic identification with one or more main characters, or at least to activate the reader's sympathetic and appreciative responsiveness to the main characters. That sort of involvement is registered, in part, through one of the three emotional response factors that emerged from the factor analysis of emotional responses in the multi-novel website, the factor "Interest." The first emotional response factor is Dislike and is constituted by positive loadings on anger, disgust, contempt, and fear of the character, and by negative loadings on admiration and liking. (A factor "loading" indicates the weight given to each of the measurements used to define a factor.) The second emotional response factor is Sorrow and is constituted by positive loadings on sadness and fear for the character. The third emotional response factor is Interest. This factor has moderate positive loadings on admiration and liking, but the main element in Interest is a strong negative loading on indifference. Characters who score low on Interest have typically received very high scores on indifference. That is, our respondents have indicated that they are highly indifferent to the character. A high score on Interest suggests a strong degree of passional involvement with a character. Factor analysis, by design, identifies statistically independent themes. The factor analysis therefore reveals that the emotional response factor Interest is qualitatively distinct from the evaluatively charged response Dislike, which constitutes a measure of positive or negative emotional valence. Interest is also qualitatively distinct from Sorrow, which constitutes a measure of sympathy or compassion.

In one of the earliest responses to *Mayor*, an anonymous critic observed that the novel "does not contain a single character capable of arousing a passing interest in his or her welfare" ("Review"136). As the scores on Interest in our study indicate,

this critic's observation of the fact is correct, but the inference the critic draws from that fact is debatable. The critic presupposes that some sort of passional involvement with characters is an indispensable requirement in all novels, so that the absence of interest is merely a defect, and a large one. Passional involvement is indeed a common way in which novels work, but it is not the only possible way, and it is not the way *The Mayor of Casterbridge* works. What Hardy is after in this novel is something rather different, and something fairly unusual, peculiar to Hardy, and perhaps more fully exemplified in this particular novel than in any other novel by Hardy. What Hardy is after is, in fact, something like the reverse of Interest. The kind of psychological work Hardy accomplishes in *Mayor* is that of gaining a reflective detachment from the story he depicts. He seeks, himself, to achieve a defensive, stoic stance against both passion and the vagaries of circumstance. Within the story itself, as a participant observer, Elizabeth-Jane embodies that stance.

Hardy worried about having cluttered the serial publication of the novel with sensational events, and he pruned and simplified the plot in the book version (Mallett xiv-xv). Even in its chastened form, the pace of the story is such that the rapidly shifting fortunes and love entanglements are like a spectacle seen through the wrong end of a telescope, a phantasmagoria of passion and folly, tinged with absurdity and futility. The most striking aspect of the emotional response for the novel as a whole is the extremely low level of Interest for the main characters. About 79% of all characters on the multi-novel website have scores on Interest higher than the average score for the six main characters in *Mayor*. Though Henchard is clearly the main character, his score on Interest is just at the average for all characters in the multi-novel website. If it is true that Hardy is seeking to damp down excitement, to discourage the emotional involvement of readers, he has evidently succeeded.

As narrator of *Mayor*, Hardy adopts a stance of reflective, Stoic detachment. He seeks to gain a calm and distant perspective on the transient ambitions and passions of human life and the peripeties and contingencies of circumstance. Gaining detachment is not the most common kind of psychological work a novel accomplishes, but it is a common strategy for coping with life, and it is altogether consistent with Hardy's melancholy and philosophical temperament. Late in life, Hardy wrote a poem titled "For Life I Had Never Cared Greatly." This was not true, but it did reflect one of Hardy's persistent philosophical ambitions. He felt this ambition as an exceptionally keen need because for life he had always cared very much, and he was thus vulnerable to all its travails.

Our data indicate that the agonistic structure of *Mayor* is very different from that of the average Victorian novel, and it is thus not surprising that the perspectival and tonal structure of the novel has presented an especially difficult challenge to

interpretive criticism. By quantifying the elements of tonal analysis, we can break up the pre-fabricated affective structures that have helped shape the criticism of *Mayor*. By reducing affective structures to their component parts, we can render interpretive analysis more flexible and more precise, and any advance in flexibility and precision can help to illuminate difficult cases like that of *Mayor*. Greater flexibility and precision can help to correct misleading interpretive assumptions and can also serve to confirm and extend the best insights of traditional criticism. Moreover, a quantitative methodology can bring our critical observations into much closer relation to the best available knowledge about the evolved and adapted structure of human nature. Motives, emotions, and personality are of crucial interest to interpretive criticism, and criticism can only benefit from gaining access to new and constantly developing empirical knowledge about those topics. Like all empirically oriented methodology, the methods we have devised should themselves be susceptible to continuous correction and development.

Appendix One: On the Five-Factor Model of Personality.

After an exhaustive search of Webster's New International Dictionary, Harvard psychologists Gordon Allport and H. S. Odbert published in 1936 a monograph categorizing nearly 18,000 terms that could be used to describe personality. They deemed their first category, which contained 4,504 unambiguous, evaluatively neutral terms, as an appropriate starting point for future research. In the 1940s, Raymond Cattell grouped the 4,504 terms into 35 clusters by judging semantic similarity and by observing which terms tend to be applied together in ratings of actual persons. Finally, Cattell used the University of Illinois' first computer, Illiac I, to analyze the 35 broad clusters with a statistical procedure called factor analysis.

Numerous variants of factor analysis exist, but they are all designed to reduce data by identifying sets of measurements that are related to each other, yet unrelated to other sets of measurements. Each set of related measurements is called a factor. In the multi-novel website study, for example, characters who were judged to value power in a prospective mate were also judged to value prestige and wealth, but these three mate-selection preferences were unrelated to the value placed on reliability, kindness, intelligence, and physical attractiveness. Hence, power, prestige, and wealth defined a factor describing the importance placed on extrinsic attributes in a prospective mate.

Cattell chose a variant of factor analysis that allowed some overlap among factors, a procedure that most modern personality researchers question (see John, Angleitner, and Ostendorf). Consequently, the specific number of factors identified by Cattell is of little interest today. The contemporary Five Factor Model of
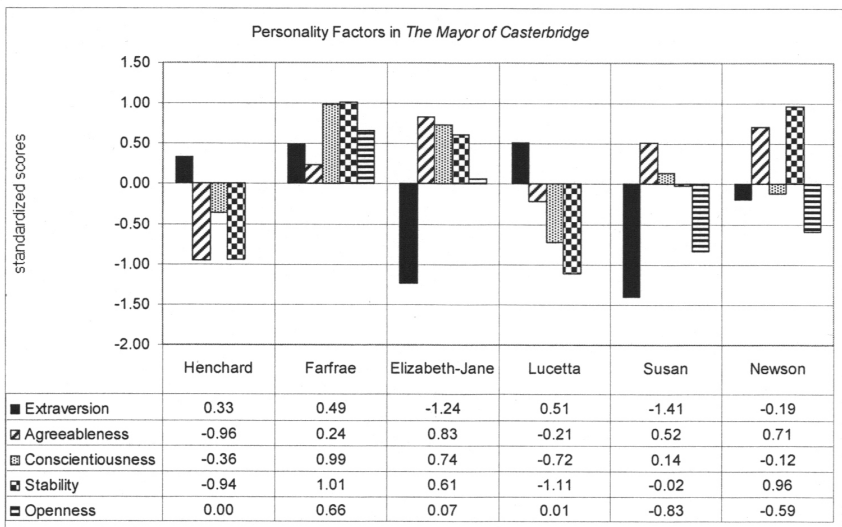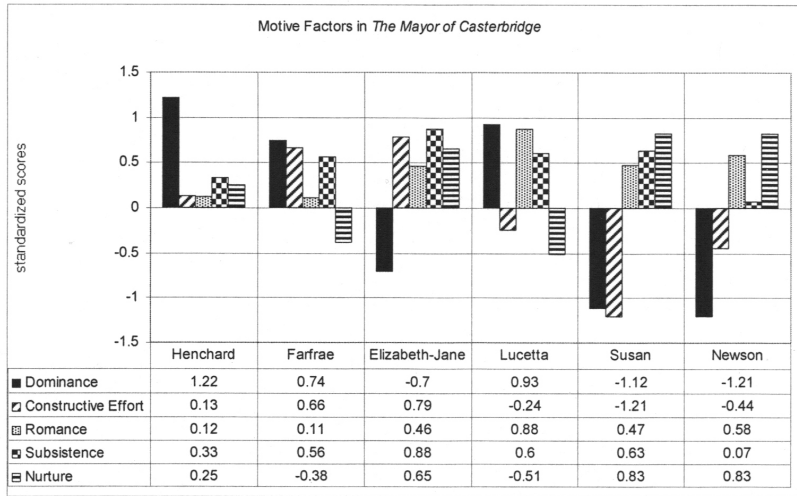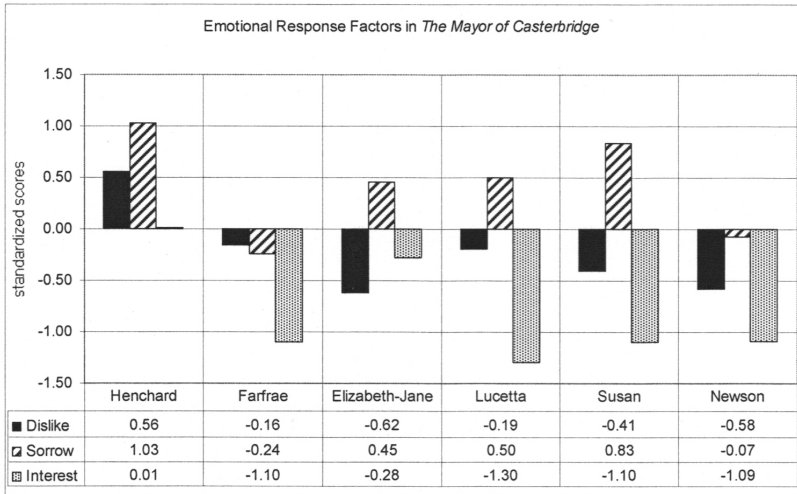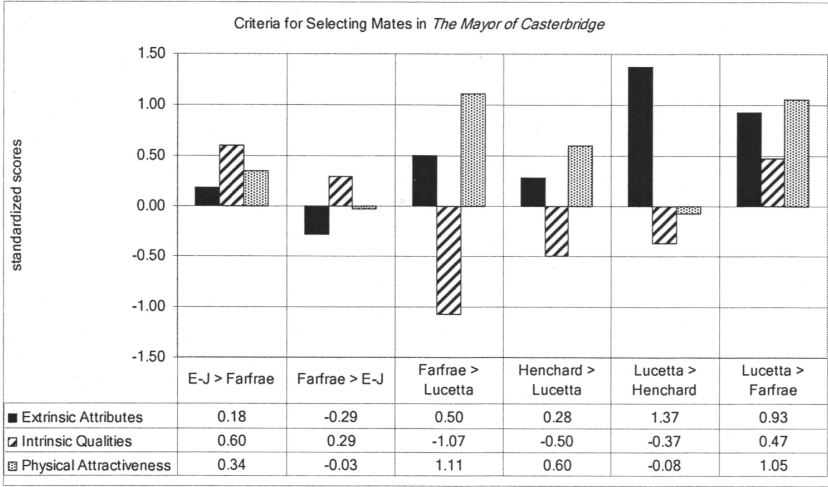
personality derives from a 1961 study conducted by Ernest Tupes and Raymond Christal, published in an obscure Air Force technical report. Both their reanalysis of Cattell's data and their analysis of new data showed five broad, distinct personality factors. Virtually no one noticed or took an interest in their findings until the 1980s, when numerous independent research teams replicated Tupes and Christal's findings with a variety of ratings instruments and questionnaires. Research in the 1990s and 2000s extended the five factor model of personality across dozens of non-English-speaking cultures, and twin studies established the heritability of the five personality factors.

Despite some disagreements over the exact nature of the five factors and the best labels for them, considerable consensus exists for the following labels and descriptions (see Costa and McCrae). Extraversion versus Introversion describes active, exuberant immersion in the social world versus a tendency to be quiet, withdrawn and disengaged. Agreeableness versus Antagonism depicts a friendly disposition and tendency to cooperate and compromise versus a tendency to be self-centered, inconsiderate, and to pursue one's interests at the expense of others. Conscientiousness versus Unconscientiousness refers to an inclination toward purposeful planning, organization, persistence, and reliability versus impulsivity, aimlessness, laziness, and undependability. Emotional Stability versus Neuroticism reflects a temperament that is calm and relatively free from negative feelings versus a temperament marked by extreme emotional reactivity and persistent anxiety, anger, or depression. Openness to Experience describes a dimension of personality that distinguishes open (imaginative, creative, complex) people from closed (down-to-earth, conventional, simple) people.

Appendix Two: Graphical Display of Motives, Personality, Mate Selection and Emotional Responses for Characters in *The Mayor of Casterbridge*

In each graph, the horizontal zero line represents the average for all the characters assigned to roles in the multi-novel website. Bars extending below the zero point indicate scores below the average of all characters. Bars extending above the zero point indicate scores above the average. For instance, Henchard's score on Dominance (1.22) is far above the average (precisely 1.22 standard deviations above the average). Newson's score on Dominance (-1.21) extends almost equally far below the average.

Motive Factors in *The Mayor of Casterbridge*

	Henchard	Farfrae	Elizabeth-Jane	Lucetta	Susan	Newson
■ Dominance	1.22	0.74	-0.7	0.93	-1.12	-1.21
▨ Constructive Effort	0.13	0.66	0.79	-0.24	-1.21	-0.44
▦ Romance	0.12	0.11	0.46	0.88	0.47	0.58
▧ Subsistence	0.33	0.56	0.88	0.6	0.63	0.07
▤ Nurture	0.25	-0.38	0.65	-0.51	0.83	0.83

Personality Factors in *The Mayor of Casterbridge*

	Henchard	Farfrae	Elizabeth-Jane	Lucetta	Susan	Newson
■ Extraversion	0.33	0.49	-1.24	0.51	-1.41	-0.19
▨ Agreeableness	-0.96	0.24	0.83	-0.21	0.52	0.71
▦ Conscientiousness	-0.36	0.99	0.74	-0.72	0.14	-0.12
▧ Stability	-0.94	1.01	0.61	-1.11	-0.02	0.96
▤ Openness	0.00	0.66	0.07	0.01	-0.83	-0.59

Criteria for Selecting Mates in *The Mayor of Casterbridge*

	E-J > Farfrae	Farfrae > E-J	Farfrae > Lucetta	Henchard > Lucetta	Lucetta > Henchard	Lucetta > Farfrae
■ Extrinsic Attributes	0.18	-0.29	0.50	0.28	1.37	0.93
◩ Intrinsic Qualities	0.60	0.29	-1.07	-0.50	-0.37	0.47
▦ Physical Attractiveness	0.34	-0.03	1.11	0.60	-0.08	1.05

Emotional Response Factors in *The Mayor of Casterbridge*

	Henchard	Farfrae	Elizabeth-Jane	Lucetta	Susan	Newson
■ Dislike	0.56	-0.16	-0.62	-0.19	-0.41	-0.58
◩ Sorrow	1.03	-0.24	0.45	0.50	0.83	-0.07
▦ Interest	0.01	-1.10	-0.28	-1.30	-1.10	-1.09

Notes

[1] Interpretations invoking the model of retributive justice include Brooks; Dalziel; Davis; Dike; Guerard; Heilman; Johnson; Karl; King; Lane; Lerner; Miller; Moore, "Death," Descent; Raine; Ramel; and Paterson. Interpretations invoking the model of Promethean Romantic heroism include Gatrell; Giordano; Guerard; Hornback; Howe; Karl; Langbaum; Lerner; Levine; Millgate; Moses; Spivey; Wilson; and Woolf. Interpretations invoking the model of redemptive change include Dalziel; Gatrell; Gregor; Hutton; Langbaum; Paterson; Showalter; Spivey; and Wright.

[2] For overviews of evolutionary psychology, see Barrett, Dunbar, and Lycett; Buss, David, *Handbook*. For explanations of basic emotions, see Ekman; Plutchik. For overviews of the five-factor model of personality, see IPIP-NEO; John. For discussions of the adaptive significance of personality traits, see Buss, Arnold; Buss, David "Evolutionary Foundations." Also see appendix one, on the five-factor model of personality. For a survey of works that use evolutionary psychology in literary study, see Carroll, "Adaptationist Literary Study." For examples of Darwinian literary study, see Carroll, *Evolution and Literary Theory, Literary Darwinism*; Gottschall and Wilson; and Headlam Wells and McFadden. For other essays in quantitative literary study from a Darwinian perspective, see Carroll and Gottschall; Gottschall, "Patterns"; "Quantitative"; Gottschall, Nordlund, et al., "Romantic Love"; Gottschall et al., "Results," "Sex Differences," "The Heroine"; and Kruger et al.

[3] The idea of delineating normative values shared by an author and an intended audience can be associated with Peter Rabinowitz's idea of "reading as authorial audience" (30).

[4] See Buss, David, *The Evolution of Desire*; Geary; Symons.

[5] On Elizabeth-Jane's role as observer and reflective consciousness, and on Hardy's identification with her, see Brooks 212; Bullen 157-59; Goode 78-94; Gregor 388; Grossman 619, 633-36; Hartveit 50-70; Jekel 131-43; Langbaum 129; Millgate 228-29; and Vigar 164-65.

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