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"I Am the Family Face": Darwinism, Heredity, and Atavism in Thomas Hardy's Novels*

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19th-century scientific breakthroughs and developments exerted huge influence upon Thomas Hardy's literary work, among which Darwinian discourses as well as issues of heredity and degeneration have attracted considerable critical attention. These scientific discourses can find their literary echoes in Hardy's novels. Hardy's characters are trapped by biological determinism and are therefore deprived of freewill, a devastating element which contributes to Hardy's tragic vision. In Hardy's early novels, Darwinism and other scientific issues are dealt with in a discursive manner, as is the case in *A Pair of Blue Eyes*; it is only in his late novels, especially in *Tess of the d'Urbervilles* and *Jude the Obscure*, that Hardy finally succeeds in incorporating Darwinian and hereditary discourses into his literary and philosophical conception and design. Thus to use a Darwinian term, this paper investigates the evolutionary process in which Hardy grows gradually adept in his artistic attempt to fuse the contemporary scientific discourses with his literary imagination, as well as in using scientific issues to mediate between authorial intention and critical expectation.

Keywords: Darwinism, heredity, pedigree, atavism, pathology

The influence of 19th-century scientific breakthroughs and developments on Thomas Hardy has been widely acknowledged and examined, among which Darwinian discourses and issues of heredity and degeneration have attracted considerable critical attention. When *The Origins of Species* was published in 1959, Hardy was "among the earliest acclaimers" (Millgate, 1984, p. 407) of it. Darwin's *On the Origin of Species* and *The Descent of Man* provide new plots and new narratives for literary texts, which act as counter-narratives against the orthodox one constructed by the Bible. Subsequent evolutionary and biological theories in the latter half of the century were equally familiar to Hardy. Hence Hardy said that his "pages show harmony of view with Darwin, Huxley, Spencer, Comte, Hume, Mill, and others" (Hardy, 1985, p. 335), the first four figures all being concerned with evolutionism. By the end of the century, issues of genealogy and heredity had been foregrounded and added a pathological dimension, coupled with the fin-de-siècle fear of degeneration and atavism. Almost all these scientific debates can find their literary echoes in Hardy's novels. What is worth noticing, in a manner of speaking, is an evolutionary process in Hardy's artistic attempt to fuse the contemporary scientific discourses with his literary imagination. To be more specific, in Hardy's early novels, Darwinism and other scientific issues

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are only lightly touched upon in a discursive manner, sometimes as relish for the main plot of the story, as is the case in *A Pair of Blue Eyes*, or sometimes provide a voguish backdrop for the otherwise non-scientific-related tale, as is the case in *Two on a Tower*. It is only in his late novels, especially in *Tess of the d'Urbervilles* and *Jude the Obscure*, that, instead of adding scientific elements mechanically into his fictional world, Hardy succeeds in incorporating Darwinian and hereditary discourses into his literary and philosophical conception and design. Therefore, through a close textual analysis of Hardy's early and late novels, this essay is going to explore the evolutionary progress in which Hardy is gradually adept in making use of contemporary scientific discourses to fulfil his artistic, literary, and philosophical intentions.

A Pair of Blue Eyes can be regarded as Hardy's first novel which is rich in Darwinian and hereditary discourses. The remarkable cliff scene in which Henry Knight is forced to cling upon a cliff dramatizes the impact of Darwinism which decentres mankind in the universe. Based on a passage in Gideon Mantell's *The Wonders of Geology* (1838), the cliff scene juxtaposes an enlightened man of letters who to some extent represents the apex of human civilization and a fossil of Trilobites, thus uniting prehistory and history:

> By one of those familiar conjunctions of things wherewith the inanimate world baits the mind of man when he pauses in moments of suspense, opposite Knight's eyes was an imbedded fossil, standing forth in low relief from the rock. It was a creature with eyes. The eyes, dead and turned to stone, were even now regarding him. It was one of the early crustaceans called Trilobites. Separated by millions of years in their lives, Knight and this underling seemed to have met in their place of death…
>
> The creature represented but a low type of animal existence, for never in their vernal years had the plains indicated by those numberless slaty layers traversed by an intelligence worthy of the name. Zoophytes, mollusca, shellfish, were the highest developments of those ancient dates. The immense lapses of time each formation represented had known nothing of the dignity of man. They were grand times, but they were mean times too, and mean times were their relics. He was to be with the small in his death (Hardy, 2005, p. 200).

The symbolic name of the cliff—the Cliff without a Name—indicates the eons that it has undergone without traces of mankind. Here Hardy creates a metaphor for the shattering sense of the displacement of human beings. Henry Knight, who intends to perform a scientific experiment for Elfride, is ironically put into an experiment performed by nature. What is striking in the passage is the intrusion of the gaze of the fossil, a reverse gaze which is almost unbearable. The encounter between Henry Knight and the Trilobite indicates that Man is reduced to the scale of a base and uninteresting creature. As Radford (2003) remarks, Knight is "reduced to the same level as a rudimentary life form" (p. 52). It is highly ironic that the egotistic Knight should "be with the small in his death" (Hardy, 2005, p. 200). As Ingham (2003) puts it, "[Knight] too is insignificant in spite of his intelligence and intense consciousness" (p. 161). This is also a moment of enlightenment for Knight, as he sees a dynamic picture of the past: "Time closed up like a fan before him" (Hardy, 2005, p. 200). Visions of creatures ranging from prehistory to the present moment flash like a film before Knight's eyes, which shatter the mode of the perception of time of the day. As Radford argues,

> "Time", to many early Victorians, was approximately six thousand years old … Within the space of a few decades the predominant view of geological time shifted from that which could be comprehended imaginatively, to that which could only be grasped mathematically. (2003, p. 57)

Issues of pedigree, lineage, and heredity are also dealt with in *A Pair of Blue Eyes*. Plenty of literary works reflect the Victorians' preoccupation with lineage and pedigree. As Greenslade (1994) remarks, "Narratives of the rise and fall of established families are pervasive at all levels of late nineteenth-century British culture" (p. 151). People were avid for information about vicissitudes of their families, so much so that by claiming that "genealogical works and M.S.S. are more consulted than any other class literature" (pp. 5-6). Hodgson (1889) wrote a guide entitled *How to Trace Your Own Pedigree, or, a Guide to Family Descent.* Hardy is himself concerned with the history of his family which used to be extended and prominent but then declined, a fact Hardy lamented to a great degree (Hardy, 1962, pp. 15-18). He wishfully believed that his family had come from a late 15th-century Clement le Hardy (Millgate, 2006, p. 6). Therefore Hardy changed his last name from "Hardy" to "le Hardy" for a period of time. Moreover, it is said that Hardy once wrote his family tree entitled "The Hardy Pedigree" (Ebbatson, 1982, p. 25). Obsessed with such issues, Hardy integrates the lure of pedigree as an important subject matter into his novels.

In *A Pair of Blue Eyes* the issue of pedigree is only dealt with as a minor theme, serving as comic relief and social satire. Mr Swancourt, the vicar of the local church, is a representative of people who are obsessed with pedigree at that time. However, the portrayal of Mr Swancourt indicates Hardy's dubiousness towards the desirability and validity of the pedigree mania. Proud of his own Swancourt lineage, which has "a root far back in the mists of antiquity" (Hardy, 2005, p. 19), Mr Swancourt is equally attracted to the pedigree of Stephen Smith's family. Having consulted the *Landed Gentry*[1], he asserts that Stephen comes from a distinguished ancestry, and celebrates Stephen's "blue blood", to which Stephen responds, "I wish you could congratulate me upon some more tangible quality" (Hardy, 2005, p. 19). Stephen's reply bespeaks Hardy's own ambivalent attitude towards one's lineage. For one thing, ancient families appeal to people with their romantic and antique tinge; more importantly, "[Pedigree] was a descriptive term, representing a genealogy, but it was also an evaluative one, an index of quality" (Greenslade, 1994, p. 152). Therefore Mr Swancourt shows excessive reverence and courtesy towards Stephen after having drawn his conclusion upon Stephen's pedigree. For another, Hardy is deeply aware of the fact that pedigree is of no real use. Furthermore, Mr Swancourt's mistake about Stephen's pedigree debunks the feasibility of tracing one's ancestry. Thus after Stephen's real birth is revealed to Mr Swancourt, his strong objection to the love affair between Elfride and Stephen heightens the dramatic tension of the novel.

Hardy's concern with the issue of heredity, on the other hand, also finds expression in *A Pair of Blue Eyes*. The novel was published in 1872, long before the birth of Weismann's theory, but the malicious and deterministic sense concerning heredity is already there. Elfride Swancourt is a distant relative of the Luxellians. She is deliberately portrayed as the granddaughter of Lady Elfride Luxellian, her namesake. Remarkably, Elfride repeats exactly Lady Elfride Luxellian's course of life: the elopement and early death of pregnancy. Elfride is ultimately dead as a Luxellian: "She had herself gone down into silence like her ancestors, and shut her bright blue eyes for ever" (Hardy, 2005, p. 354). Thus the life of Elfride is to some extent determined by her lineage and hereditary traits. Yet at this stage Hardy did not bring issues of lineage and heredity into full play. That Elfride is predetermined by her heredity, an assumption which emerges into the main plot only on and off, does not exert influence upon the overall development and the ending of the story. Issues of lineage and heredity are intertwined

[1] Short for A *Genealogical and Heraldic Dictionary of the Landed Gentry of Great Britain and Ireland*, issued by Sir John Bernard Burke in 1872.

with the main plot of the love triangle to create melodramatic effects of coincidence and a sense of doom. Thus in *A Pair of Blue Eyes* these issues are investigated not so much for thematic integration as for stylistic decoration. It is not until Hardy's last two novels, that is, *Tess of the D'Urbervilles* and *Jude the Obscure* that issues of heredity, degeneration, and atavism begin to be closely intertwined with Hardy's philosophical conceptions.

The lure of lineage, which is treated as a slight theme in *A Pair of Blue Eyes*, is put in the foreground in *Tess of the D'Urbervilles*. The title of *Tess of the D'Urbervilles* suggests the significance of lineage. Instead of "Tess D'Urberville", "Tess of the D'Urbervilles" points directly to the central issue of descent and ancestry. The novel begins with and develops around the issue of lineage. Like Mr Swancourt in *A Pair of Blue Eyes*, there is also a self-proclaimed antiquarian in *Tess of the D'Urbervilles*: Parson Tringham. The parson, who is supposed to be people's guide sent by God, is described to be humming "a wandering tune" (Hardy, 1988, p. 13); the hypallage in the phrase suggests that it is the parson rather than the tune that is wandering, which undermines the holiness of his role as God's messenger. Furthermore, the parson discloses the information about Tess's ancestry in a totally carefree manner, without foreseeing the serious consequence the so-called revelation will bring about. The revelation from the parson is only his "whim", without any sense of divinity, so it is merely a parody of revelation. What is worthy of remarking is the way in which the parson examines the physiognomy of John Durbeyfield: "Throw up your chin a moment, so that I may catch the profile of your face better. Yes, that's the d'Urberville nose and chin—a little debased" (Hardy, 1988, p. 14). The Darwinian discourse here is obvious: The parson sees John as a specimen of the species, that is, the d'Urberville species, which is, unfortunately, "extinct" (Hardy, 1988, p. 15). Therefore the parson "passes on knowledge which, though 'useless', may 'disturb'" (Greenslade, 1994, p. 153). The messenger of God turns out to be a messenger of disaster since from this point on the tragedy begins. As Greenslade puts it, "'Pedigree' kicks the narrative into life, and downhill to tragedy" (p. 154).

Throughout the novel Tess is depicted as a victim of her pedigree. The clash between her two last names—"Durbeyfield" and "d'Urbervilles" shows the confrontation between the rural order and industrial modernity, as the former bespeaks pastoral countryside and the latter urbanity. The lure of pedigree in the very beginning of the novel coupled with the sudden worsening of her family's financial situation triggers the onset of Tess's displacement. The ineffectuality of Tess's ancestry is emphasized by the always intrusive narrator whenever Tess is trapped into difficulties or dangers. The damage that is done upon Tess by her pedigree is further reflected by the fact that her lover Angel regards the question of pedigree with a perplexing variety of attitudes. Angel, like Knight, is portrayed as "a young man of liberal and independent spirit who is in revolt against many of the prevailing values, standards, and assumptions of his time and class" (Hazen, 1977, p. 129). Thus it is said that "he can't stomach old families" (Hardy, 1988, p. 143). Having learned Tess's birth, however, Angel's negative attitude towards ancient families becomes somewhat complicated, as he says to his father,

> Politically I am sceptical as to the virtue of their being old. Some of the wise even among themselves "exclaim against their own succession" as Hamlet puts it, but lyrically, dramatically, and even historically, I am tenderly attached to them. (Hardy, 1988, p. 184)

Yet despite Angel's scornful stance against the virtuousness of old families politically, he self-contradictorily uses Tess's distinguished ancestry as an asset to win his parents' favour for her. Ironically, however, after Tess confesses her past affair with Alec, Angel attributes her behaviour to her lineage, saying,

"Decrepit families imply decrepit wills, decrepit conduct. Heaven, why did you give me a handle for despising you more by informing me of your descent!" (Hardy, 1988, p. 252). Angel's double standard here is more than clear.

Along with the unavailing pedigree comes the menacing determinism of heredity. August Weismann's *Essays Upon Heredity and Kindred Biological Problems* in which he put forward the theory of germ plasm was first published in England in 1889 (Mayer, 2000, p. 83), in the wave of the rise of neo-Darwinism. It is well-documented that Hardy read *Essays Upon Heredity* during the process of his construction and revision of *Tess of the D'Urbervilles*, and he must have felt the idea of germ plasm which was believed to transmit physical and mental features unchanged from generation to generation very congenial. As Greenslade remarks, "Weismann's most controversial idea that the continuous track of hereditary influence, vested in germ-plasm, is independent of the life-history of the organism, struck a favorable chord with Hardy" (1994, p. 159). Furthermore, Weismann's theory of heredity, which rendered human progress a doubtful notion, led to copious scientific discoveries and debates about degeneration and atavism in the fin-de-siècle. Thus influenced by developments of medical, biological, and psychiatric sciences, people of the end of the 19th century believed that poverty, alcoholism, insanity, and criminality were symptoms of the degeneration of the human race. The British zoologist Edwin Ray Lankester's work *Degeneration: A Chapter in Darwinism* (1880) introduced the rhetoric of natural selection in the mechanism of evolutionary change and degeneration. Moreover, Weismann (1891) argued that although a detailed account of the exact way in which atavism happens cannot be given, "the germ-plasm of very remote ancestors can occasionally make itself felt, in the sudden reappearance of long-lost character" (p. 182); most importantly, the Italian criminologist and physician Cesare Lombroso (1891) came up with the concept of recapitulation which shed more light upon atavistic phenomena.

Hardy's embrace of these contemporary scientific discourses on heredity and atavism is also reflected in *Tess of the D'Urbervilles*. Throughout the novel Tess is portrayed as an atavistic existence, a repetition of the past. As Padian (1988) remarks, "[Tess] is an atavism, a throwback … she embodies the connection to deeper time, to genealogical legacy" (p. 229). Hence Tess is portrayed as a victim of heredity and biological determinism. The hereditary taints from her ancestors that threaten Tess are both physical and psychological. The portrait scene in the manorial residence at Wellbridge, which Angel chooses as the lodging of their wedding night, implies Tess's physical atavism. Angel discerns the physiognomic similarities between the d'Urberville ladies in the portraits and Tess, and more significantly, the facial features are rendered quite menacing:

> The long pointed features, narrow eye, and smirk of the one, so suggestive of merciless treachery; the bill-hook nose, large teeth, and bold eye of the other, suggesting arrogance to the point of ferocity, haunt the beholder afterwards in his dreams. (Hardy, 1988, p. 235)

The witch-like and vicious looks of Tess's ancestors seem to account for the sins committed by the d'Urbervilles, a half truth and half folk belief that is suggested by the narrator throughout the novel.

What is even more ominous than Tess's physical atavism is her mental and psychological atavism. The extinction of the d'Urberville lineage, its failure to adapt itself in a ruthless history where, to use Herbert Spencer's terms, "the survival of the fittest" is the golden rule, is caused by its certain fatal weaknesses which are unfortunately passed down to Tess, as is indicated throughout the novel. In this way the history of individual

families is interpreted in the aspect of natural history. One fatal taint of heredity on Tess is her passiveness, "a symptom of that reckless acquiescence in chance too apparent in the whole d'Urberville family" (Hardy, 1988, p. 273). To a great extent, this symptom of reckless acquiescence whose prowling malignity Tess herself perhaps does not fully recognize accounts for her submissiveness towards Alec's sexual exploitation as well as her forbearance of Angel's abandonment after their wedding, both events proving to be disastrous for Tess. The most damaging result of Tess's atavism is her criminal tendency. Lombroso points out the relationship between criminal tendency and atavism, believing that the criminal type was an atavism, an evolutionary throwback (1891, pp. 5-6). As far as the heroine is concerned, her murder of Alec clearly echoes the ghostly legend of the coach-and-four that the d'Urbervilles was once concerned with a murder case. Tess's ruthless criminal action is unexpected and hard to comprehend at first sight; however, despite her sympathetic nature, the criminal tendency that she inherits from her ancestors is always there, which is foreshadowed by her violent behavior towards Alec at Flintcomb-Ash Farm:

> One of her leather gloves, which she had taken off to eat her skimmer-cake, lay in her lap, and without the slightest warning she passionately swung the glove by the gauntlet directly in his face. It was heavy and thick as a warrior's, and it struck him flat on the mouth. Fancy might have regarded the act as the recrudescence of a trick in which her armed progenitors were not unpractised. (Hardy, 1988, p. 351)

Here the leather gloves are compared to the warriors' weapons which transform Tess into a warrior that her ancestors used to be. One can see that Tess's violent behaviour is described as a fit rather than a deliberate decision. The word "recrudescence" bespeaks atavism, indicating that Tess's sudden fit of violence is a recurrence of a long-hidden trait. Thus Tess says to Angel after she murders Alec, "I feared long ago, when I struck him on the mouth with my glove, that I might do it some day for the trap he set for me in my simple youth, and his wrong to you through me" (Hardy, 1988, p. 407). Tess, at the final stage of her life, is also vaguely aware of the "aberration" in her blood, as Angel terms it. Tess's body is therefore represented as a palimpsest, with diverse layers of historical writings rising to the surface sometimes. Reilly (2013) argues that realism is connected with repetition, return, and copy (pp. 62-63). So in *Tess*, the realistic part of Hardy makes use of the issue of heredity as biological determinism to render history as the repetition of the past. As Miller (1970) puts it, "The idea of a present which is a repetition or reincarnation of the past recurs through the novel like a refrain with many variations" (p. 102). Therefore when Angel asks Tess to read history, she answers,

> Because what's the use of learning that I am one of a long row only—finding out that there is set down in some old book somebody just like me, and to know that I shall only act her part; making me sad, that's all. The best is not to remember that your nature and your past doings have been just like thousands' and thousands', and that your coming life and doings will be like thousands' and thousands'. (Hardy, 1988, p. 142)

Greenslade remarks that "Tess's plea here is against the determinism of the continuous effects of the hereditary taint" (1994, p. 159). Nevertheless, despite Tess's resistance against the overwhelming power of repetition, her life still turns out to be a repetition of her ancestors.

In *The Shaping of Tess of the d'Urbervilles* (1975), Laird's close investigation of Hardy's manuscript reveals the process of how Hardy placed the issue of heredity into an increasingly more prominent position in the novel. The question arises that why Hardy reinforced the issue of heredity, instead of other concerns that the novel deals with. A telling chronological information given by Laird is that Hardy's reading of Weismann

coincides with his revision of the manuscript which had been rejected by three publishers on account of its impropriety. The *Graphic* accepted the manuscript only on condition that certain episodes were deleted. Therefore it can be reasonably inferred that any revision that Hardy made is for the purpose of raising the likelihood of its being published. After all, to what extent Tess, technically speaking, a fallen woman and a murderer, could be conceived as a pure woman remained a problem for Hardy. By making Tess the carrier of the germ plasm of an effete aristocracy, the charges against her personality can be allocated to the hereditary taints that Tess is destined to carry. Therefore, it cannot be concluded that Hardy fully embraced the contemporary hereditary theories and rendered his literary works the advertising endorsement and popularization of science; rather, Hardy actively and ingeniously made use of relevant scientific discourses for his professional and artistic purposes. As Greenslade points out, "Hardy's biological interests, though genuine enough, were in no sense scientific: as this note implies, it was largely accidental that his aesthetic and emotional preoccupations happened to fit in with an 'objective' structure of thought" (1994, p. 159). Hence one must pay attention to the fact that the omniscient narrator sometimes keeps ambivalent as to the question whether Tess is a real d'Urberville. By making allowance for the certainty of this issue, Hardy seems to emphasize the point that the tragedy of Tess cannot be attributed solely to biological determinism. Tess's suffering is the result of the combined action of society and nature. Social determinism also plays a crucial role in Tess's tragedy. As Ingham (2003) points out, "Hardy was quite capable of constructing a sequence of events which forcefully denied the importance of a blood relationship" (p. 176). The unstable and bleak financial situation of Tess's family and Tess's inferior social status make her subject to economic exploitations; Tess is also victimized by the patriarchal society and double standard in sexual morality.

Therefore, although atavism as a cruel physiological determinant seems to render all other discourses useless, what Hardy criticizes is the repressive moral imperatives and stifling religious codes. Heredity and lineage as a haunting past in a post-Darwinian environment make the situation even grimmer. And it is because of this very fact that Hardy calls for sympathy and kindness among mankind to counteract the ruthless force, a theme that is further explored in his last novel *Jude the Obscure*. If Tess's atavism is only triggered under certain extreme circumstances, which renders her atavism less fatal, then Jude's condition is pathological. In "the deadly war between flesh and spirit" (Hardy, 2002, preface) in *Jude the Obscure*, hereditary traits along with repressive social codes act as a crushing force to deprive the protagonists' capacity to pursue their ideals and freedom. What renders the picture even more sinister is that heredity is connected with pathology, another engaging topic in late Victorian literature.

Jude is born with two distinct and fatal hereditary features: his hypersensitiveness and his unsuitability for marriage, both leading to his tragedy to a great degree. Jude's hypersensitiveness is reflected at the very beginning of the novel when he feels sympathetic to the birds that he is supposed to scare away. "A magic thread of fellow-feeling united his own life with theirs" (Hardy, 2002, p. 9). Sue, due to her cousinship with Jude, also possesses such a sympathetic disposition towards animals. In *The Descent of Man* (1871/2004), Darwin postulated the evolutionary significance of sympathy. "Those communities, which included the greatest number of the most sympathetic members", Darwin says, "would flourish best, and raise the greatest number of offspring" (p. 130). Influenced by evolutionary theories, the fellowship among all living things is also advocated by Hardy: "The discovery of the law of evolution … shifted the centre of altruism from humanity to the whole

conscious world collectively" (Millgate, 1984, p. 373). However, for Hardy, hypersensitiveness is an evolutionary mistake, a pathological condition. The more morally sensitive one is, the more likely he or she is to be influenced by the sufferings in the world, hence more pain. One can see that throughout the novel much of Jude's pain comes from his moral sensitiveness:

> This weakness of character, as it may be called, suggested that he was the sort of man who was born to ache a good deal before the fall of the curtain upon his unnecessary life should signify that all was well with him again. (Hardy, 2002, p. 11)

Furthermore, Jude's excessive sympathy and moral sensitiveness weakens his viability both in a rural and an urban environment. The fact that Jude is fired by farmer Troutham because his sympathetic nature is an obvious illustration of his unfitness of survival in the countryside where natural selection works. The contradiction between Jude's moral sensitiveness and the requirements of the rural order comes to a climax when the relationship between Jude and Arabella collapses because of their difference upon how to kill their pig. Jude's sense of "the illogical" (Hardy, 2002, p. 11) nature suggests his deep aware of the blind, unconscious and irrational will which is at work in the universe. Hence Hardy laments,

> A woeful fact—that the human race is too extremely developed for its corporeal conditions, the nerves being evolved to an activity abnormal in such an environment. Even the higher animals are in excess in this respect. It may be questioned if Nature, or what we call Nature, so far back as when she crossed the line from invertebrates to vertebrates, did not exceed her mission. This planet does not supply the material for happiness to higher existences. (Millgate, 1984, p. 277)

Apart from his excessive sensitiveness, Jude's idiosyncratic craving for knowledge is also rendered in hereditary terms. As his great aunt says, "The boy is crazy for books, that he is. It runs in our family rather. His cousin Sue is just the same" (Hardy, 2002, p. 8). There is nothing wrong in his craving for knowledge itself, but this hereditary trait alienates Jude from his fellow creatures in the agricultural society, and brings him face to face with the suppressing hierarchy of the educational system in Christminster. As King (1978) remarks, "This inheritance acts as the tragic 'flaw' because the desire for learning brings Jude into conflict with a social and educational system which cannot cater for the needs of a youth of his class or individuality" (p. 23).

After Jude is disillusioned with his academic and ecclesiastic dream, there is a high chance for Jude to lead a moderately happy life after he and Sue live together, since "that the twain were happy—between their times of sadness—was indubitable" (Hardy, 2002, p. 278). What makes a common life impossible for them, however, is another pathological inherited trait—their unfitness for marriage. Throughout the novel, for the Fawleys, the taboo of marriage is "like the curse that hangs over the House of Atreus in the Aeschylean trilogy" (King, 1978, p. 23). At the very beginning of the novel Aunt Drusilla, who herself remains unmarried throughout her life, warns Jude against marriage: "Jude, my child, don't you every marry. Tisn't for the Fawleys to take that step any more" (Hardy, 2002, p. 8). Then the novel uncovers gradually how the curse of marriage leads to the tragic deaths of Jude's parents. Jude and Sue, victims of this hereditary trait, or rather, atavism, therefore, are not suited for marriage. This hereditary trait as the "sommat in our blood" (Hardy, 2002, p. 8), an allusion to Weismann's germ plasm, shows the equation between heredity and pathology in this case. Thus we have two failed marriages in the novel—the one of Jude and Arabella and the other of Sue and Phillotson. After Jude and Sue are both freed from their failed marriages, they live together in Aldbrickham on the basis of their mutual love. Here they come across

a dilemma. On the one hand, they could have avoided their misfortune if they had succeeded in getting married, but the marriage could probably bring them great disasters like their ancestors' since they are born not to be fit for marriage; on the other hand, if they do not get married, they will be excluded from society because of their unconventional behaviour. Nevertheless, in fear of repeating the mistake of their ancestors, especially after hearing the tragic story about their ancestors which is told by Mrs Edlin the night before their supposed marriage, they do not get married after all, which marks the beginning of their rootlessness and adversity. They are forced to leave Aldbrickham after people learn about their real relationship, which is regarded as a profanity to the Victorian society. Hence the tragedy of Jude lies in his inherited defects which render him incapable to deal with the moral demands of his time.

The fact that Hardy's attribution of Jude and Sue's unfitness for marriage to a medical or pathological case shows Hardy's artistic adeptness at applying scientific debates to his literary construction in a creative and even arbitrary way. That a disposition unfit for marriage could be hereditary may be more suitable to be rendered in mythological or folkloric terms than biological and pathological ones. After all, scientifically speaking, can such a trait be hereditary? In doing so perhaps Hardy intends to achieve two purposes, one is practical and the other philosophical. It has been pointed out that the marriage issue reflected in *Jude the Obscure* has much to do with Hardy's own marital situation with Emma, which, during the composition of *Jude the Obscure*, came to the freezing point. Yet Hardy must have been aware that a declared opposition against the institution of marriage would incur censorship. Thus, in order that his criticism towards certain aspects of the institution of marriage could be rendered as veiled as possible, Hardy brought hereditary discourses into play. Hence Hardy says:

> My opinion at that time, if I remember rightly, was what it is now, that a marriage should be dissolvable as soon as it becomes a cruelty to either of the parties—being then essentially and morally no marriage—and it seemed a good foundation for the fable of a tragedy, told for its own sake as a presentation of particulars containing a good deal that was universal, and not without a hope that certain cathartic, Aristotelian qualities might be found therein. (Hardy, 2002, preface)

The philosophical purpose is concerned with Hardy's pessimistic outlook towards the relationship between man's free will and determinism. With the introduction of the doctrines of Schopenhauer, Hartmann, and other German philosophers, the late Victorian era became an epoch of pessimism. For Schopenhauer, free will is an illusion and determinism stands firm. People are trapped by the unrelenting forces that derive from the Universal Will, which is deterministic, irrational, compulsive, and unconscious. This kind of philosophic view must have struck a favourable chord with Hardy. Thus in Hardy's last novels the scientific discourses and philosophical discourses converge and create a gloomy picture of mankind who are sunk into the gulf of determinism. It is precisely because of the double sense of doom due to biological determinism and philosophical determinism that Hardy gives his vehement attack against the inhuman social conventions and unsympathetic human relationship which darken the world.

In his later years, Hardy repeatedly defended his works against any sweeping characterization of them as the demonstration of some systematic philosophy by saying:

> Many critics treat my works of art as if they were a scientific system of philosophy, although I have repeatedly stated that the views in them are seemings, provisional impressions only, used for artistic purposes because they represent approximately the impressions of the age, and are plausible, till somebody produces better theories of the universe. (Bloom, 2010, p. 39)

This justification of Hardy's is also applicable to his fascination with contemporary scientific discourses which have been discussed in this essay. Darwinism, evolutionary theories, biological and hereditary issues appeal to Hardy because they represent the intellectual current of the time, and more importantly, they can serve Hardy's specific artistic and literary purposes. Based on this stance, this essay has analysed how these scientific debates are integrated with Hardy's social, moral, and philosophical outlook, and in a way mediate between authorial intention and critical expectation. Through a comparative reading of Hardy's early novels and his late novels, one can see an evolutionary improvement in Hardy's literary skills of dealing with scientific subject matters.

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