Three Scenarios for Literary Darwinism

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Introduction: The Once and Future Discipline

Thirty years ago, the idea of creating a specifically evolutionary theory of literature would scarcely have seemed imaginable and would certainly not have seemed within the range of practical possibility. Nonetheless, over the past fifteen years, "literary Darwinists" have been making rapid progress in integrating literary study with the evolutionary human sciences. What is the likely future trajectory of this movement? We can probe this question by comparing three alternative scenarios: one in which literary Darwinism remains outside the mainstream of literary study; one in which literary Darwinism is incorporated as just another of many different "approaches" to literature; and a third in which the evolutionary human sciences transform and subsume all literary study. For the first two scenarios, we can easily enough extrapolate from past and current beliefs and practices, but we also have to factor in the continuing development of the evolutionary human sciences outside of literary study. That would have an impact on the way life would be lived within the isolated enclave of literary study. It is one thing to be a small village in a world consisting only of small villages. It is another thing to be a small village surrounded by a world empire in confident possession of the practices and beliefs through which it has achieved unification and mastery. For the third scenario, we have to envision how literary study would develop within an evolutionary perspective that encompasses all the human sciences.

Scenario 1: And Never the Twain Shall Meet

Three decades into the new postmodern hegemony, we are now also at least a decade into "the crisis in the humanities." The subversive metaphysical and political fervor that fuelled the poststructuralist revolution has long since subsided into tired routine. The question that generated the poststructuralist revolution, "What next?" is being asked again, and

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with increasing desperation. In a recent essay on the parlous state of the humanities, Louis Menand professes himself willing to consider almost any possible option, only just not one particular option: "consilience," that is, integrating literary study with the evolutionary human sciences. That option, he declares, would be "a bargain with the devil."[1]

In the first scenario—a continuation of the status quo—a large majority of literary scholars continue to share Menand's aversion to any connection with the evolutionary human sciences. The literary Darwinists stand wholly separate from the mainstream literary establishment, massively ignored, unable even to get panels accepted at the annual conferences of the Modern Language Association, assiduously though silently expunged from citation lists and from surveys of critical theory, not merely neglected but actively and aggressively shunned. In this scheme of things, the literary Darwinists write essays critical of mainstream practices but have no productive interaction with the mainstream.

The first monograph in literary Darwinism appeared in 1995.[2] The number of books and articles published since 2007 and now in press—a three-year span—far exceeds the number published altogether in the twelve years from 1995 through 2006. In a steady-state scenario, this exponential growth could not continue. Otherwise, within just a few years, literary Darwinism would have come to dominate literary study, violating the premise of the scenario. So, we have to assume that the rate of growth in literary Darwinism not only levels off but actually declines—and all this while poststructuralist literary study is losing heart, on the one side, and the evolutionary human sciences are making giant strides on the other. Unlikely, but so goes the scenario. Within this scenario, we need say only that the literary Darwinists would continue to do the kind of work they have been doing all along.

What the Darwinists have been doing all along is using evolutionary psychology to examine the motivations of characters in novels, plays, and (less frequently) poems, concentrating chiefly on the sexual aspects of reproductive success but taking in also family dynamics, social dynamics, and survival issues such as acquiring resources and avoiding predators.[3] For instance, in his critique of *The Iliad* and *The Odyssey* Jonathan Gottschall analyzes the interplay between socio-economic organization and reproductive psychology. In his commentary on the plays of Shakespeare, Marcus Nordlund correlates Elizabethan conceptions of love, both filial and romantic, with findings from evolutionary psychology. Judith Saunders examines mating strategies and family problems in the novels of Edith Wharton. In company with two psychologists (John Johnson and Daniel Kruger), Gottschall and I examine the interplay between dominance, cooperation, and gender in dozens of Victorian novels.[4]

Several evolutionary studies have situated literary works in specific ecological and cultural environments. Harold Fromm, Glen Love, Nancy Easterlin, and I have all integrated evolutionary and ecological approaches to literature.[5] Gottschall's critique of Homer's epics delves deep into anthropological and archeological research on the Homeric period. I examine the confluence of medieval Christian sentiment and Paterian aestheticism in Wilde's *The Picture of Dorian Gray*. In her critique of Edith Wharton's novel *The Children*, Judith Saunders analyzes the disruption of normal childhood development in the milieu of Jazz Age hedonism. Brett Cooke situates Zamyatin's dystopian novel *We* both in utopian and dystopian literary traditions and in the socio-political conditions of Soviet Russia. To illustrate his "biocultural" approach to literature, Brian Boyd gives close attention to specific cultural beliefs and practices in Homeric Greece and also focuses minutely on the political context—Japan shortly after the Second World War—to which Dr. Seuss responds in *Horton Hears a Who!*[6] Most of the essays in the collection by Hoeg and Larsen focus on issues specific to Hispanic cultural contexts.[7]

Moving beyond the analysis of represented subject matter, several scholars have used evolutionary psychology to examine the interplay of perspectives among readers, authors, and characters. In our empirical study of Victorian novels, Johnson, Gottschall, Kruger, and I correlate the emotional responses of readers with motives and personalities in individual characters.[8] In commentaries on *The Picture of Dorian Gray*, *Wuthering Heights*, and *Hamlet*, I give close attention to the history of reader responses and make inferences on authorial perspective.[9] Robert Storey and Michelle Scalise Sugiyama have also considered reader response from an evolutionary perspective.[10] Lisa Zunshine and Blakey Vermeule use "Theory of Mind" to examine point of view. Using game theory and the theory of "costly display," William Flesch identifies depictions of altruistic punishment as a chief means through which authors engage readers emotionally. Michael Austin delves into manipulative deceit and self-delusion in point of view.[11] The study of point of view shades over into the study of tone. I combine basic motives with "basic emotions" in a framework for analyzing genres.[12] In a critique of *Hamlet*, I elaborate ideas of tragedy by incorporating recent research on the neurobiology of depression, consider the kinds of emotional responses *Hamlet* has elicited in readers, and compare reader responses to Hamlet in various literary periods.[13]

Evolutionists have also made inroads into the analysis of form in literary works. Brian Boyd emphasizes the continuity between "play" in animals, human curiosity, and the generation of novelty in form, principles he applies to classical works such as *The Odyssey*, modernist works such as

Lolita, and avant-garde graphic narratives.[14] The Darwinists have focused more on drama and fiction than on poetry, but Michael Winkelman demonstrates that Zahavi's handicap principle can be effectively used to analyze the tension between convention and invention in Donne's poetic forms.[15] Michelle Scalise Sugiyama and Brian Boyd use goal-orientation and problem solving to construct basic frameworks for the analysis of narrative, and Daniel Nettle uses human-life-history theory for analyzing the structure of drama.[16]

Most of the literary Darwinists now at work have been trained in the old schools and have been teaching themselves new concepts and methods, striving and sometimes struggling to gain an assured perspective on disciplines in which they have no specialist expertise—evolutionary biology, genetics, psychology, anthropology, linguistics, personality theory, and cognitive and affective neuroscience. The most important institutional blockage limiting further growth in literary Darwinism is that only one or two graduate programs, so far, allow students to pursue this line of work. In the steady-state scenario, then, we have to assume that older scholars continue to prohibit their students from taking up this line of investigation. Consequently, the work published in literary Darwinism would continue to be produced mostly by scholars who had already gained tenure on the strength of more conventional kinds of research.

Scenario 2: Joining the Party

In this second scenario, we can continue to assume that mainstream literary study would remain much as it now is. The only thing that would change in this second scenario is that literary Darwinism would not be shunned. Nor would it become a dominant, commanding perspective, altering the whole paradigm of literary study. It would simply be recognized as yet one more "approach" to literary study. Two institutional markers would signal the realization of this scenario: evolutionists would have panels accepted at the annual conference of the Modern Language Association and its regional affiliates; and interpretive essays in literary Darwinism would regularly be included in casebooks of canonical literary texts. Most such casebooks now include essays exemplifying Marxism, Freudian psychoanalysis, deconstruction, feminism, and New Historicism (that is, Foucauldian cultural critique). We shall know that the second projected future has become a present reality when the casebook on *Hamlet* also contains an essay giving a Darwinian reading of the play.[17]

Among some of my colleagues with an evolutionist bent, this second

scenario seems the most likely of the three. It takes account of the rapidly increasing visibility and prestige of literary Darwinism outside the academic literary establishment—for instance, the notices that have appeared in journals and newspapers around the world, from *Science* and *Nature* through the *New York Times*, the *Guardian*, *TLS*, and the *Chronicle of Higher Education*. Since the Darwinists have vindicated their claim that evolutionary ideas can be used for literary interpretation, and since they form a rapidly growing minority of literary scholars, is there any reason that this second scenario might not almost inevitably take place sometime within the next few years? I think there is. Marxism, Freudianism, and deconstruction are all totalizing in their own ways, but they can also all be converted into forms that make them parts of the standard postmodern blend. Althusserian Marxism and Lacanian psychoanalysis are essentially compatible with Foucauldian discourse theory. And indeed, "poststructuralism" as a school can be most concisely defined as the subordination of Marxist social theory and Freudian psychoanalytic theory to deconstructive semiotics. That is the message in Foucault's definition of "discursive practices."[18]

Can Darwinism be subordinated in this way to the transcendent power of the sign? Efforts along this line have not been wanting. In *Darwin's Plots*, Gillian Beer takes Darwinian themes as precursors for Derridean indeterminacy. George Levine takes a similar line in *Darwin and the Novelists*. Ellen Spolsky adopts the idea of "cognitive domains" from evolutionary psychology and uses this idea as evidence for the Derridean claim that cognition is necessarily incoherent.[19] Still, no specifically Darwinist form of poststructuralist interpretation has emerged from these efforts. Poststructuralism yields causal primacy to language. To think in evolutionary terms, in contrast, is almost automatically to adopt a perspective of deep time, a perspective in which "life," self-replicating DNA, precedes thought, to say nothing of language. One can speak of DNA itself as a form of "language," but this is just a metaphor, and it does not take one very far into the formation of personal and social identity. "Constructivist" and biological notions of personal and social identity seem inherently incompatible. Biology is too deep, broad, and basic to be easily or convincingly depicted as just another semiotic gambit.

The powerful disciplinary motives behind literary academics' resistance to biology form a natural bond with ideological motives. If human nature were "socially constructed," it could easily be changed to fit more neatly into whatever moral and political forms one might favor.[20] Causal force would reside primarily not in underlying biological realities but rather in the formulation of social ideals. This idealist approach is a particular manifestation of a pervasive and perhaps universal human cognitive

disposition: the disposition for wishful thinking. Wishful thinking offers the solace of comforting illusion and could possibly even have adaptive, therapeutic value, easing stress and making it easier to endure insoluble problems. Nonetheless, pleasurable fantasy necessarily operates in tension with adaptive dispositions for finding out how things actually work. Literary academics at the present time are perhaps particularly susceptible to wishing away real social problems, rather than understanding them, because they have painted themselves into a disciplinary corner. Having abjured the prospect of gaining real knowledge, they have inevitably placed a heavy emphasis on moral and political judgment as the chief justification for what they do. If they cannot offer objective knowledge about their subject, the rationale for their professional existence must be that they occupy a superior ideological perspective. This professional *raison d'être* is a politicized, poststructuralist version of the humanist idea that a literary education makes one a better person. Poststructuralist ideologues envision a world in which conflicting interests and differential distributions of power no longer exist. Accordingly, they look with disapproval on all actual forms of social and political organization. They thus guarantee for themselves a perpetual stance of ideological superiority. Darwinism is by no means incompatible with an informed and humane moral creed,[21] but it is most definitely incompatible with the utopian ideal of a world order in which conflicting interests and differential distributions of power do not exist.[22]

Despite the inherent incompatibility between Darwinism and Foucauldian cultural critique, for the purposes of the scenario, let us imagine that the Darwinists are brought into the casebooks. Would they consider themselves just one more approach among many? Some no doubt would. "Pluralism" is a chronic symptom of theoretical confusion in the humanities. The idea is that the world is divided into two main parts: a physical part that can be understood by science—reduced to components, quantified, and unified—and an imaginative, cultural, spiritual, or personal part—qualitative, consisting of unique, irreducible moments of experience and unique, irreducible effects, aesthetic and imaginative. By its very nature, this second world could never be reduced to a unified set of underlying regularities. It could only be described and evoked. Its essence is not reductive law but phenomenal particularity. The best way to deal with it is to bring as many perspectives as possible to bear on a subject and thus to illuminate as many diverse aspects of the subject as possible. The diversity of aspects would never add up to a single, unified phenomenon, and explanations of those aspects would never add up to a single, unified explanation. Though denied the ultimate satisfaction of unified causal explanation, adherents of this world view can look forward

to an endless succession of incomplete and incompatible interpretive responses to the same finite body of novels, poems, and plays. This, more or less, is the pluralist metaphysic. However diverse their overt professions of theoretical allegiance, this metaphysic defines the deepest convictions in most practitioners in the humanities today.

What, then, would a Darwinist contribution to a casebook look like? To qualify as Darwinist, a reading would have to bring all its particular observations into line with basic evolutionary principles: survival, reproduction, kinship (inclusive fitness), basic social dynamics, and the reproductive cycle that gives shape to human life and organizes the most intimate relations of family. While retaining a sense of the constraining force of underlying biological realities, literary Darwinism would also have to emulate the chief merit of Foucauldian cultural critique—its understanding that the forms of cultural representation are highly variable, that these variations subserve social and political interests, and that every variation has its own specific imaginative quality. As it is currently practiced, cultural critique usually arrives at its conclusions in a theoretically illegitimate way, by assuming the causal primacy of representation. This is what it means to say that reality and social identity are "constructed." Despite the obvious fallacies in this idea, Foucauldian critique often has rich descriptive power. The Foucauldians have achieved dominance in literary study partly because they recognize that the chief purpose of literary study is to examine the forms of cultural imagination. To compete for space in casebooks, then, the Darwinists would almost necessarily have to eschew their own tendencies toward literalist representationalism—the idea that literary texts merely depict a pre-existing reality in a true and faithful way.

Vulgarity accompanies theoretical movements the way camp followers—hawkers, prostitutes, and idlers—accompany an army in the field. Just as there is a "vulgar Marxism," there is also a "vulgar Darwinism." Yet further, there is a vulgar form of literary Darwinism. In its most naïve form, literary Darwinism consists in merely pointing to the existence of Darwinian themes in various works of literature. Madame Bovary wants a mate with more status than her husband. Anna Karenina is bored with her respectable husband and gets charmed into an illicit relation with a Byronic type better suited for short-term mating. No wonder she ends up throwing herself beneath a train. Tom Jones just can't resist a roll in the hay with Molly Seagram, and that gets him into hot water with Sophia Western, but he is only doing what comes naturally to males, so she forgives him in the end. Had Sophia herself been found dallying with Molly's brother, the outcome could not have been so favorable. The sexual double-standard is just part of human nature.

In its short history, vulgar literary Darwinism has already become established as a convenient target for critics eager to dismiss the possibility of evolutionary criticism in its more sophisticated forms.[23] Practitioners of the more sophisticated forms recognize that literature does not simply represent typical or average human behavior. Human nature is a set of basic building blocks that combine in different ways in different cultures to produce different kinds of social organization, different belief systems, and different qualities of experience.[24] Moreover, every individual human being (and every artist) constitutes another level of "emergent" complexity, a level at which universal or elemental features of human nature interact with cultural norms and with the conditions of life that vary in some degree for every individual. Individual artists negotiate with cultural traditions, drawing off of them but also working in tension with them. The tension derives from differences in individual identity, the pull of universal forms of human nature, and the capacity for creative innovation in the artist. Individual works of art give voice to universal human experience, to the shared experience of a given cultural community, and to the particular needs of an individual human personality. Literary meaning consists not just in what is represented—characters, setting, and plot—but in how that represented subject is organized and envisioned by the individual human artist. Moreover, literary meaning is a social transaction. Literary meaning is only latent until it is actualized in the minds of readers, who bring their own perspectives to bear on the author's vision of life. A thorough interpretive effort would subsume represented subjects and formal organization into an overarching concept of literary meaning, and it would expand the concept of meaning to include its transmission and interpretation. Still further, instead of looking only at intentional meanings and the responses of readers, a thorough evolutionary critique would look at the kinds of psychological and cultural work specific literary texts actually accomplish—the functions they fulfill—and it would locate those functions in relation to broader ideas of adaptive function, thus bringing the interpretation of individual works to bear as evidence on the larger, still-controverted question of the adaptive function of the arts.[25]

Scenario 3: Back to the Future

Transformation involves renovation from the ground up, eliminating the endemic confusion of "pluralism" and carrying through on the implications of a Darwinian vision. It is not the case that there is nothing outside the text. It is not even the case that there is nothing outside of

life. Before life evolved, there was a physical universe in which it could evolve. It *is* the case, though, that there is nothing in life outside of evolution. That means both less and more than it might seem to mean. It does not mean that the forms of literary development—genres and traditions—exactly parallel the macrostructures of evolutionary development. It does not mean that all human experience is driven in a simple and direct way by the biblical injunction go forth and multiply. It does not mean that all literary characters exemplify average or species-typical forms of behavior. It certainly does not mean that all authors, even ancient, medieval, Renaissance, and neo-classical authors, are crypto-Darwinists. What it does mean is that all humans past and present have evolved under the massively constraining force of adaptation by means of natural selection. It thus means that the species as a whole has a characteristic structure of "life history."[26] That life history entails a species-typical set of motive dispositions and emotional responses, and along with them a species-typical range of personality characteristics. Individuals can and often do vary from the species-typical, but the species typical provides a common frame of reference. Individual differences, in specific cultures and specific individual persons, vary from that base line in ways that have systemic effects on the motivational and emotional characteristics of the whole system. Individuals can mate with members of their own families, prefer sexual partners of their own sex, murder their parents or children, live celibate lives in religious orders, consign themselves to perpetual hermitage in deserts, starve themselves to death, throw themselves on hand grenades, blow themselves up in crowded market squares, devote their lives to charitable purposes, sacrifice worldly ambition for the sake of art, or write books declaring that reality is purely a social construct. All of these forms of behavior can be traced to the only possible source of all behavior: the interaction between genetically transmitted dispositions and specific environmental conditions. Consequently, none of these behaviors is "unnatural," and indeed, there is no such thing as an unnatural form of behavior. Every form of behavior consists in some discernible combination of the elements of human nature interacting with specific environmental conditions. Every form of behavior has its own distinct set of affects; everything comes with a cost; every form of satisfaction sacrifices some other possible form of satisfaction; every fulfilled impulse works in tension with some other impulse left unfulfilled; and every act shapes the total organization of feeling and perception in the whole organism and in the larger social groups in which virtually all individual humans are embedded. The motives and passions that have derived from an adaptive evolutionary process constitute what we call "human nature." Intuitive perceptions of these motives and passions

are products of "folk psychology"—the common, shared, basis for the understanding of intentional meaning in other human beings.[27] Folk psychology is the lingua franca of social life and of literature.

The Darwinian literary study that, in this scenario, will ultimately absorb and supplant every other form of literary study will assimilate all the existing concepts in literary study—traditional concepts of style, genre, tone, point of view, and formal organization, substantive concepts of depth psychology, social conflict, gender roles, family organization, and interaction with the natural world. It will not just take those concepts ready made and tack them together like a shack made of flattened cans and scraps of cardboard on the edge of a third-world city. It will use them as heuristic guides to the emergent structures that are most relevant to literary study as a subject matter with its own peculiar features and concerns, but it will rebuild each of those concepts *de novo*—reshaping, breaking down, consolidating, and adding—by direct and explicit reference to the rapidly expanding research in all the contiguous disciplines of the human sciences.

There are no real ontological or epistemological barriers separating the humanities and the evolutionary human sciences. We do not occupy parallel universes, stepping comfortably out of one when we drive a car or visit the dentist and into another when we read a novel, look at a painting, or listen to a piece of music. It is all the same world, intelligible by the same instruments.[28] The barriers separating these two worlds are the barriers merely of convention based on ignorance. "Pluralism" elevates those conventions to the dignity of a theoretical position, and that position provides a rationalization for maintaining the habitual limitations in the scope of our subjects and the methods by which we investigate those subjects.

In this third scenario, the pace of production in Darwinist publication will continue or increase; the institutional resistance of the postmodern establishment will crumble from within, almost silently, softly metamorphosing into dust, like the Soviet empire, as a result of intellectual dry rot. A few hammer blows no doubt will be needed to knock down actual obstructions, like the Berlin Wall, but these blows are more symbolic than substantive. The real barriers are in the minds of men and women. As these changes occur, the Darwinists will not be elevated into comfortable hegemony, simply taking possession of the seats of power vacated by the erstwhile commissars of the postmodern politburo. They will be in something like the same position as the former states of the eastern bloc, running hard just to catch up with their more prosperous neighbors to the West, working day to day to maintain life while simultaneously rebuilding their whole institutional infrastructure.

In this third scenario, high-school students will all take introductory courses in statistics, which are, after all, less demanding mathematically than the more advanced forms of math in the standard high-school curriculum. Undergraduates, as part of their general education, will take more advanced courses in statistics and will also take courses in empirical methodology. Courses in the "social sciences" will themselves all be integrated from an evolutionary perspective—the same kind of perspective that prevails now, for instance, in journals such as *Behavioral and Brain Sciences*. The evolutionary human sciences will be closely integrated with required courses in evolutionary biology, molecular biology, and the sciences of the brain. Students in the humanities will develop basic proficiency in these disciplines in the same way virtually all European students, in all disciplines, now develop a good working knowledge of the English language.

When undergraduate English majors write papers on Shakespeare or Virginia Woolf, Chaucer or Charlotte Brontë, they will in some ways do what they have always done—talk about characterization, personal and social identity in the characters and in the author, style, point of view, tone, the organization of narrative, and cultural contexts and literary traditions. But in other ways, all this will be different. In writing of personal and social identity, they will not have recourse to obsolete and misleading ideas from Freud, Marx, and their progeny. They will have recourse instead to empirically grounded findings in the evolutionary human sciences. In speaking of tone and point of view, they will make use of cognitive and affective neuroscience. They will consider local affects in relation to the actual brain structures and neurochemical circuits that regulate emotions, to "mirror neurons," Theory of Mind, and "perspective taking." In assessing style and the formal organization of narrative or verse, they will take account of underlying cognitive structures that derive from folk physics, folk biology, and folk psychology.[29] They will still bring all their intuitive sensitivity to bear, registering the affective qualities that distinguish one work from another, communing in spirit with the author, or holding off skeptically from authors with whom intimacy for them is repugnant. They will not regard their own subjective responses as wholly arbitrary nor as somehow incommensurate with the brain structures that regulate behavior, thought, and feeling in ordinary life. When they locate literary works in relation to cultural context, they will have recourse to new forms of history, both forms that use brain science to create an ecological and psychopharmacological profile of a given era,[30] and also forms that delineate large-scale laws of social organization deriving from elementary processes of intergroup conflict and intragroup organization.[31] They will draw on knowledge

both of the actual social and political situation and of the deep evolutionary background for that situation. We already see works of literary scholarship that answer to this description.[32]

When they come to graduate study, aspiring literary scholars will have open before them a wide spectrum of methodological choices, ranging from the purely discursive, essayistic forms of commentary that now dominate the humanities to the rigorously quantitative, empirical methods that now prevail in the sciences.[33] Some no doubt will tend more in one direction than in another, but none will think that quantitative and discursive forms of study occupy separate and incommensurate universes. They will not cast about desperately for novelty, taking recourse in superficial verbal variations ensconced in sophistical theoretical ambiguities. They will, rather, wake up like kids at Christmas, delighted with the endless opportunities for real, legitimate discovery that are open to them.

Conclusion: Belief in Things Unseen

In one way, the third scenario is the hardest about which to make concrete predictions. To predict a continuation of the status quo, one need only extrapolate from what one can actually see and factor in the consequences of degenerative pressure, internal and external. The process at work is something like that in which profilers for police agencies take a photograph of a person missing for years, apply known principles for the way people's faces change over time, and come up with a reasonable approximation to what the missing person would look like now. So also, with the second scenario, one holds the mainstream practices steady while adding to them the current practices of literary Darwinism. The third scenario allows us to stipulate the conditions for rebuilding literary knowledge from the ground up, but by its very nature as a progressive, empirical discipline, it exceeds prediction. It promises discovery, things not yet dreamed of, lying latent in the bosom of reality, at levels of causal structure we have not yet penetrated, and at levels of complexity we do not yet, perhaps, have the skills even to envision. If one were able to travel back in time, visit some far-seeing investigator in the Renaissance, an astronomer, say, or an anatomist, take him by the elbow and give him a tour of the modern world, would it not all seem to him truly alien, strange, wonderful beyond all imagining? And yet, all these wonders were lying latent in the world, and he would himself have been taking the first steps toward their discovery.

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NOTES

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