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# Response: Psychological Foundations of Literary Theory

The editors of the *Journal of Literary Theory* have invited me to give my views on literary theory. I appreciate the opportunity to do so but want to stress that these are my own personal perspectives and do not reflect the position of the journal. I hope it goes without saying that I shall review manuscripts in terms of what authors have set as their goals rather than in terms of whether they agree or disagree with me. Readers will note that, rather than sticking to theory in this article, I intermix theory and empirical data. I hope they will forgive this foible. Psychologists avoid theories that are not supported by such data.

### The Necessity of Theory

Literary studies must be based upon at least an implicit theory of literature. Were they not, an investigator would not have the slightest idea what to study. It is literary theory that tells one to focus upon certain things and ignore others, such as type font, the color of book covers, the chemical composition of the paper in a book, and so on. In the case of belles lettres or what Lotman (1976) called »literary chit-chat«, an implicit theory may suffice, as nothing of importance is being said. In the case of literary criticism, which I take to be the discussion of a work or works by a given author or small group of authors, literary theory may be helpful but is not in all cases absolutely necessary. If one is only trying to explain what an author meant or was trying to say, literary theory may be of no relevance beyond justifying to postmodernists that the critic is in fact able to explain these things (e.g. Hirsch 1973).

However, if one wishes to say anything of interest or importance about literature in general, implicit theories are dangerous. Because the theory is implicit, the writer himself or herself does not examine it or even know exactly what it is. One of the things that it can be is totally incorrect. If it is incorrect, it is quite unlikely to shed useful light upon literature and quite likely to lead us astray in our understanding of literature.

## The Scientific Nature of Theories

It would thus be wise to base our work upon theories that are explicit or at least can easily be made so. By definition, theories are scientific in nature. As soon as we decide to formulate a literary theory, we have committed ourselves to a scientific approach to literature. (To avoid confusion, I should note that Americans and Europeans tend to divide disciplines into the sciences and the humanities in different ways. I am following the American tradition of treating psychology – and literary studies using scientific methods – as sciences rather than as belonging to the humanities.) Scientific theories must be stated in such a way that their axioms are explicit, and their postulates can at least in principle be tested and either supported or falsified. Such an approach need not involve experiments or quantification. Some things are clear enough that no counting or experimentation is needed.

By nature, theories are general rather than specific. The more general a theory is, the better it is usually thought to be. We could develop, for example, a theory about a single sonnet by Shakespeare. In gathering evidence to support this little theory, no quantification or statistics would really be needed. However, such a theory would be viewed as uninteresting or unimportant as compared with a theory about sonnets in general. However, there are a huge number of sonnets. How could we keep them all in mind at the same time in developing or testing our theory? We couldn't. Human mind is only capable of thinking clearly of around five things at a time (Martindale 1991). This severe limitation makes qualitative research difficult if not impossible. It almost forces us to use quantitative methods if only for mnemonic reasons. Of course, I do not seriously expect literary scholars to rush out and become experts on statistics. One of the purposes of this article is to warn such scholars to be extremely careful when they use qualitative research methods. Another possible strategy is interdisciplinary cooperation with a scholar who does know about statistical methods. We could certainly use less specialization and more interdisciplinary interaction.

### The Perils of Qualitative Research

We can certainly find large scale studies that have relied upon purely qualitative methods. An example would be Mario Praz's (1933) *The Romantic Agony*, in which he makes a fascinating and compelling case that there was a sex-role reversal in 19<sup>th</sup> century European literature. That is, the century began with stereotypically strong male characters and weak female characters but ended with weak male characters and strong female characters. Martindale (1975) used quantitative methods and statistics to show that Praz was right, and the probability that he was right in the case of 19<sup>th</sup> century French poetry.

However, qualitative methods can fail even in the hands of a scholar as erudite as Praz. In his *Mnesomyne* (1971) Praz used qualitative methods to show that cross-media styles do not exist. Here, he was following a long line of theorists reaching back to Lessing (1766) who had used qualitative methods to demonstrate the nonexistence of such styles. In this case, Praz and other scholars were completely wrong. In a series of studies using quantitative methods, Hasenfus, Martindale, and Birnbaum (1983) showed that such styles are readily perceived by people with virtually no training in the arts and, to a lesser extent, even by preschool children.

In an often cited study using qualitative methods, I.A. Richards (1929) supposedly demonstrated that even honors university students in literature show virtually no agreement in their interpretations of a set of poems. Apparently, Richards was stuck by disagreements and did not notice the far more numerous agreements. Unfortunately for his thesis, Richards included some of his data in an appendix. Application of a simple statistic to these data showed that the students in fact seemed to agree quite well. Martindale and Dailey (1995) replicated Richards's study using both rating scales and written essays of the type that Richards had used. Their results were very clear. People agree in their interpretations of poems to about the same degree that they agree about anything else. For over 70 years, Richards's fundamental error remained uncorrected. Because most literary scholars did not read the Martindale and Dailey article, the error no doubt persists. Any theoretical work built on the basis of Richards's mistake collapses. It is simply wrong. A horror story like this illustrates the dangers of qualitative research methods and should warn us to be very suspicious of theories based upon such methods.

Qualitative methods may be adequate for the interpretation of small amounts of data. However, they are not appropriate for analysis of the large amounts of data that would be needed to test a literary theory of any generality. Unfortunately, literary theorists are untrained in statistical analyses and often show a downright hostility to methods involving mathematics or statistics. They may think of fine theories but do not know how to test them.

## Literary Theories Must Be Grounded upon Psychology and Linguistics

Literature is a rather ill defined subset of the linguistic behavior of people. Given this, it would seem obvious that a literary theory should be based upon, or at least not in conflict with, scientific psychology and linguistics. This is not to say that literary theory must be a mere sub-discipline of these sciences. In principle, it could be made to be so, but this would render theorizing too complicated. Economics deals with human behavior but is not generally taken to be a sub-discipline of psychology, as that would make economic theory too cumbersome. The economist cannot, however, come up with a theory that contradicts what we know about psychology for the simple reason that the theory would lead to incorrect predictions. People follow the laws of psychology regardless of whether they are writing a book or founding a business firm.

Literary theorists have often overlooked the fact that their theories should not contradict what we know about mind and language. For example, New Criticism, founded in large part by I. A. Richards, involved the idea that a poem should be studied only in reference to itself and without reference to anything outside the poem. This is quite impossible. Given the association of ideas, which psychologists had studied for centuries, as soon as one reads the first word of a poem, this word will call to mind words and ideas with which it is associated in the mind. Especially if the reader is well versed in literature, many of these ideas will have to do with other works of literature. However, the New Critics were explicit that works of literature should not be interpreted in terms of other works of literature. By the time a reader has finished the poem, he or she will have in mind not only the words and ideas conveyed by the poem but a host of other words and ideas that are associated with what is said in the poem. Many of these associations will be common to all readers, whereas others will be idiosyncratic. Thus, the New Critics had set themselves a task that any psychologist could have told them was utterly impossible.

We see that I. A. Richards misled theorists into thinking that people do not agree in their interpretation of works of literature because of his inability to do simple statistics. He gave us the impossible New Criticism because of his psychological naiveté. He was an important figure in 20<sup>th</sup> century literary theory but a negative force who retarded rather than advanced the field. It is of no little interest to compare the sterile work of the New Critics with the fascinating contributions of Harold Bloom (1973; 1975), who argues that works of literature are written largely in response to other works of literature and should be so interpreted.

### Misdirected Literary Theories

At times during the course of the 20<sup>th</sup> century, literary theory came close to being scientific. One thinks of Russian and Czech formalism (e.g. Mukařovský 1940; Tynjanov/Jakobson 1929) and later of structuralism (e.g. Lévi-Strauss 1967; Todorov 1973). The latter may be taken as a sort of zero-degree science. The structuralists saw that narratives could profitably be divided into segments that related to one another in systematic ways. However, the first requirement of science is that all observers can observe the same thing. In the case of structuralism, this merely would have required demonstrations that all observers divide a narrative in more or less the same way. Rather than taking this small step, structuralism collapsed into deconstructionism and postmodernism. A deconstructionist writer such as Derrida (1967) was, as far as I can tell, not proposing a theory but exhibiting signs of delirium. One can at least understand some of what postmodern theorists such as Lyotard (1992) said, but it was so ridiculous that it is not worth refuting. Meanwhile, others such as Fish (1990) >discovered

Eventually, literary theorists got tired of delirium and the assumption that they couldn't understand anything so turned to approaches such as feminism and the New Historicism. Both approaches offer some potentially interesting insights into literature. So long as feminism aims at finding women writers perhaps unjustly excluded from the canon and investigates such questions as the possibility that women writers write with a particular feminine voices, it provides useful information. If new historicism confines itself to popular culture and is based upon a scientific psychological or sociological foundation, it also is of interest. However, these approaches have often been radicalized and these forms share several flaws. First, they ascribe to literature a power that it simply does not have. If one wishes to oppress women, the poor, or minorities, there are far better weapons. Second, they foreground aspects of literature that are often peripheral. Some varieties of feminism and new historicism imply that the central focus of literature is the marginalization or denigration of women or minorities or the lower class. This involves a sort of hubris that seems quite implausible. One imagines that most works of literature are peripherally if at all concerned with these groups. A third problem with some types of feminism and new historicism is that they are not theories that can be tested and falsified. That is, they begin with the assumption that their favored group is the central focus of literature and that a failure to find evidence for this is a fault of the investigator rather than a falsification of the theory. A fourth problem is that these approaches involve the assumption that literature is much more closely related to contemporary cultural and social forces than it in fact is. As explained below, at least the high arts operate in a virtual social vacuum. They have virtually nothing to do with extra-artistic forces. It is thus often incorrect to assume that authors reflect or even agree with current values or beliefs.

## Some Psychological Contribution to Literary Theory

A literary theory needs to account for a number of phenomena. These have been dealt with to varying degrees by psychologists and linguists. Tsur (1992) gives an overview from a more linguistic perspective. Below, I enumerate some but certainly not all areas with which psychologists have dealt.

### Creation of Literary Works

Psychologists have spent well over a century systematically investigating creativity. This research has yielded a remarkably consistent picture of both the creative personality and the act of creation. We now know enough about creativity that it is very easy to teach someone to be creative. The problem is that creativity, though easy to teach, is impossible to learn. It seems to be due almost entirely to genetic causes. Though there are some differences among domains, especially regarding specific talents, there are not many. The main difference between a creative poet and a creative mathematician seems to be what they are creating rather than how they are arriving at their ideas. Creativity requires the simultaneous presence of a number of personality traits (Eysenck 1995; Martindale 1989) such as disinhibition, high self-confidence, a wide range of interests, openness to novel ideas and a distaste for standard dogmas, nonconformity, and a tendency to be more interested in ideas rather than in other people. Capacity for extremely hard work (perceived by the creative person as fun) is also essential. It seems to take about 10 years working seven days a week and 16 or so hours a day merely to learn the relevant elements and techniques in a domain in order to think of a creative idea. Extremely creative people seem to keep up that pace throughout their careers. Marcel Chevreul, the eminent French chemist and psychologist was asked about the cause of his longevity (he died at the age of 103). He replied that his work was so fascinating that he didn't have time to die. One of the reasons for the extreme rarity of creativity is that the necessary traits combine in a multiplicative way so that if any one of them is absent, a person is not going to be creative (Evsenck 1995). As well as personality traits, a certain type of cognition (Martindale 1995) brought about by specific brain states (Martindale 1999) is necessary. A number of theorists have described creative insight. Though they have used vastly different terminology, they have all said the same thing. A creative idea consists of the combination of two or more already existing but very remotely associated ideas. This combination literally cannot occur in an ordinary waking conceptual state of mind. In such a state, ideas are like the atoms in a crystal. Each is tightly bound in just one place. Creative people have a facility for getting into more primordial associative states of mind. To continue the metaphor, this is like heating the crystal to a fluid state; now remote atoms have a chance of colliding and forming the new combination (creative idea).

### Literary Quality

Psychological aesthetics began with Fechner (1876). It has focused much more on the visual arts than upon literature for logistic reasons. It is easy enough to use, say, reproductions of paintings as stimuli. It would be difficult to ask participants in an experiment to read a group of novels and respond to them. Nonetheless, a number of general laws of aesthetic preference have been discovered (Martindale 2006). Some of these may be applied to literature (Martindale [in press]), but it is very clear that a lot more work is needed in this area. It is easy enough to differentiate popular literature from what we could call great literature in that, among other things, the former tends to be a good bit simpler than the latter. However, we are rather at a loss when it comes to making discriminations within the two groups.

### Literary Evolution

The first task of any theory is to formulate taxonomies. This can of course be roughly done in literature. However, literature is a moving target that is constantly changing, so that today's taxonomy will be tomorrow's history. The changes in literature and the other arts are massive enough and systematic enough that I have developed a theory of aesthetic evolution (Martindale 1975; 1990) patterned at least in a metaphorical way after the theories of Darwin (1871). The theory is easiest to understand if we deal with the case of poetry. All sorts of forces act upon poets, but across the long term they randomize out with one exception: the force for novelty. Once something has been said, later poets cannot say it again. Thus, whether it is an obsession or a nuisance, it ends up determining the course of poetic history.

A very simple definition of a poetic style is that it is a roughly defined lexicon of words that can be used in poetry and a set of rules governing how these words can be used. Within a given style, to create something more novel than his or her predecessors, a poet could regress to a more primordial level of consciousness. This will leave its mark on the words used in poetry, and we can use content analysis to measure the extent to which such words are used. Eventually, all useful word combinations allowed by the style will be found. A style change is thus required. This involves adding and dropping words from the lexicon (Miles 1964) and changing stylistic rules. Given that new words are being used, it is not necessary for poets to engage in regressive primordial cognition to find novel word combinations. Once these have been found, though, more and more primordial cognition will be required.

If this theory is correct, we should expect the novelty or unpredictability of poetry to increase monotonically and words indicative of primordial cognition to vary in an oscillating manner. I have confirmed the theory on dozens of literary, musical, and artistic traditions (Martindale 1990). The most extensive study was of 170 British poets writing between about 1300 and the present. Using several statistical techniques, I was able to show that the theory accounted for about half of the variation in word usage among the 170 poets. The remaining variation is due to random error and factors that I leave it to others to discover.

#### Literature and Society

The high arts are so autonomous from the external society that art essentially has nothing to do with society. In the study of British poetry just mentioned, hundreds of extra-literary time series were correlated with measures of the content of poetry. The number of significant correlations was in fact less than we should expect to find by chance. This should come as no surprise. No serious theorist has ever asserted that art reflects society. Writers of college textbooks and a few Marxist theorists far from the mainstream have said that it does. However, mainstream Marxism (Marx/Engels 1947; Trotsky 1925) are explicit that high art is so autonomous from the base economic structure that it does not reflect society.

Popular arts are clearly related to society. For example, in a study of American popular music lyrics Martindale (1990) found large numbers of relationships between content of the lyrics and social and economic measures.

#### Function of Literature

Ordinary people spend a huge amount of time consuming popular culture widely defined. Popular music seems to be as important as food to younger people; working people probably spend the majority of their evenings watching one television program after another. Though he was speaking of poets, Freud (1908) explained this well enough. Nothing of much interest passes through the ordinary person's mind, whereas the poet can think of interesting substitute fantasies.

Art and literature are universal. They are found in all cultures. This suggests that they must serve some basic evolutionary needs that may go beyond mere entertainment. Those who follow Darwin (1859) generally note that art in its earliest stages was connected with religion and ritual. For this reason, they connect it with the adaptive need to reinforce social solidarity or cohesion. The argument is not that it still serves this function; rather, this is the way in which it originated and persisted for thousands of years. Dissanayake (1988; 1995) makes this argument but also notes that art can give intense pleasure in cultures in which it is no longer connected with ritual. She also points out that art is still connected with ritual in primitive cultures.

In addition to adaptation, Darwin (1871) also asserted that sexual selection is an evolutionary mechanism. It was necessary to do so in order to explain traits such as the brilliant colors of many birds that are at best useless and at worst maladaptive. If the females of any species for whatever reason like a given trait, they will mate with males that posses the trait. Because of the universal tendency to prefer supernormal stimuli (stimuli that are a bit more extreme than those previously encountered), the result will be a runaway evolution in which females of the species prefer the trait in increasingly extreme form and males exhibit it in increasingly extreme forms. In contrast, to adaptation, which operates on a scale of millions of years, sexual selection takes place very quickly.

It has recently been realized that sexual selection may be the reason that humans have a number of traits that may come in handy but are useless from an evolutionary point of view. For example, we are much more intelligent than we need to be in order to survive. Our intelligence comes from brains that are much larger than is really necessary. Large brains cause large heads, which cause maladaptive problems during birth. By the same token, human language is much more elaborate and complex than necessary. It may be that language arose from singing, which is utterly useless when it comes to survival. All this may have come about because females had a preference for intelligent males who could sing nice songs or make up pleasing poetry during courtship.

Miller (2001) asserts that this is indeed the case. In a way, this makes art and literature central to human evolution. He argues that this process is still occurring and points out that most art and literature is produced by relatively young men. Perhaps they are quite unconsciously creating these artifacts as ornaments to attract potential mates. If we observe the absurd reaction of young women to male singers of popular music, we see that this is indeed a very useful means of attracting potential mates. Miller's ideas are controversial, but new ideas usually meet with a negative response. His theory explains many things that are otherwise quite mysterious and is certainly worth consideration.

#### Reader Response

Of course, it is literature as it is understood that is the proper subject matter of literary theory. Thus, it is important to know what readers do understand as well as what they ignore and what they read into a work of literature. The study of reader response was begun by theorists such as Iser (1978), who investigated the matter using purely qualitative methods. Such methods constrain one to studying a small number of readers lest he be swamped by data that cannot be handled correctly with qualitative methods. For example, Holland (1975) did an in depth study of five readers. It is difficult to generalize from such a small sample, so a better method is to employ quantitative methods that can be dealt with statistically so that we may see if findings are real or arose merely by chance (e.g. Meutsch/ Viehoff 1989; Nardocchio 1992).

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