THE SCIENCE OF LOVE
IN THE MIDDLE AGES, THE ROMANTIC PERIOD,
AND OUR OWN TIME

by
ROBERT GRAHAM PERRY
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Department of COMPARATIVE LITERATURE

The University of British Columbia
2075 Wesbrook Place
Vancouver, Canada
V6T 1W5

Date August 8, 1979
Abstract

The discipline or category of the philosophy of love has been precisely defined, its diverse traditions fully documented and compared, and its distinctive rhetorical medium—the dialogue—analyzed in detail. Another of love's disciplines, the science of love, has not fared as well: the nature of this discipline has seldom, if ever, been defined, few of its particular traditions have been documented, let alone compared, and its distinctive rhetorical medium—the love-treatise—has never been adequately analyzed. Two reasons for this neglect suggest themselves. First, love-science has often been perceived as being merely a frivolous, eccentric, reductive, or immoral discipline. It was in these terms that, for example, two of the finest nineteenth century contributions to the discipline, Goethe's *Die Wahlverwandtschaften* and Stendhal's *De l'Amour*, were critically received. Second, the discourse of love-science in general and of the love-treatise in particular has often been considered to be stylistically impure.

What has been, and continues to be, neglected is a long-enduring and extremely rich tradition of colourfully hybrid texts. Both the necessity imposed by the length of this essay to take a limited focus on this tradition, and at the same time the desire to give an impression of its sweep and continuity, have been fulfilled by organizing the study in terms of a comparison between the love-sciences of two historical periods, the Middle Ages and the modern Romantic and post-Romantic Age. A number of fascinating connections suggest themselves. The Romantic descriptions of love's chemical affinities and cristallisations profoundly resemble the grand medieval scientific erotic themes.
of the love potion and the malady of love. All four topoi fulfil an important dualistic function: they highlight both the physical fatality of passion as well as the possibility, explicit in the fact of the scientist's control over nature, of limited control being exercised over that passion. Stendhal's Romantic love-treatise *De l'Amour* bears a strong family resemblance to medieval love-treatises. The important theory of a comparative science of love which Stendhal articulates is prefigured in medieval culture, notably in the Arabic tradition of love-treatises. The form of the love-treatise provides the ideal medium for comparative studies of how love is perceived and experienced in different cultures and under different conditions. Both the Middle Ages and the Modern Age create scientific metaphors for love which possess great beauty. Two of the most beautiful of these are the medieval trope of the tree of love and Stendhal's Romantic image of love's crystallisations. The mock-science of love of a writer like Andreas Capellanus provides a medieval antecedent to the mock erotic science created by Thomas Mann in his novel *Der Zauberberg*. Finally, in both the Middle Ages and the Modern period, the language of technology often plays a disturbing part in erotic analogies. Here, the science of love can become the revelation of a dehumanized conception of love.

The science of love is not a true science. Neither is it a merely frivolous or inconsequential kind of literary discourse. The science of love consists of a whole complex of unverifiable, yet, nevertheless, extremely useful fictions about the nature of love. These fictions are useful because they explain the genesis, transformations, and conclusions of love. They are also useful because they express and celebrate the magic compulsion exercised by love. Finally, the fictions of love-
science are useful because they have provided, in the form of the love-treatise, elaborate codifications of love.

But the fictions of love-science hold a fascination beyond their provision of colourful and useful explanations or codifications of the notoriously indeterminate phenomenon of love; these fictions are compelling because they have shaped and continue to shape the erotic imagination and sensibility. The experience of love is far from innocent before the discourse of love.
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Introduction

I begin with a number of fascinating and difficult questions. Why did man originally create, and why does he continue to create, works on the "science of love"? Can it even be classified as a legitimate science? Would not pseudo-science be more apposite? What kind or kinds of love are included in the category? What explains the scepticism and uneasiness that the discipline has always inspired? Given the uncertain status of the discipline itself, what may be said of the status of its generical and rhetorical vehicles? Are we dealing with scientific, pseudo-scientific, or literary discourse? In what specific ways have writers extended or manipulated the science-love equation? And finally, the most important question, what are the implications for love itself, of its being conjoined with science?

I have sought answers, however tentative, to these questions in the love-sciences of the Middle Ages, the Romantic period, and our own time. How justify excluding the important love-sciences of the seventeenth-century and the Renaissance? The answer is simple: to include these would be to attempt to articulate a full history of the science of love, which is no part of my intention. But why choose to focus on such divergent historical periods as the Middle Ages and the Romantic period extending into our own century? Beyond the not insignificant fact that a number of the outstanding works which fall under the rubric of the science of love were written in these historical periods, lie several deeper reasons for thus delimiting the field of inquiry. The finest Romantic love-treatise, Stendhal's De l'Amour, displays important traces
of medieval influence. Two of the most powerful Romantic scientific erotic metaphors, Goethe's metaphor of the "elective affinities" of love and Stendhal's metaphor of the *cristallisations* of love, profoundly resemble the grand medieval metaphorical themes of the love potion and the malady of love. Also, in both traditions one discovers important instances of mock-scientific disciplines. Finally, in both traditions one finds in the work of certain writers on love a rather disturbing preoccupation with the technical dimensions of the science-love equation. The dramatic increase in the use of technical analogies in the love literature of our own age is a cause for particular critical concern. When does the science of love cease to carry humanistic significations and become instead the revelation of a dehumanized conception of love?

In Chapter One I examine Ibn Hazm's *The Dove's Neck-Ring*, a superb medieval example of that strange generical beast, the love-treatise. What possible purposes can be served by pouring the impossible phenomenon of love into the rigid rhetorical mould of a scientific or scholarly treatise? In Chapter Two I explore the potentially comic implications of studying love in treatise-fashion by examining Andreas Capellanus' notorious *De Amore*. A short initial digression on Ovid, the founding genius of the mock-science of love, helps to place Andreas' treatise in context. In Chapter Three I examine a little-known medieval treatise on love, Richard de Fournival's *Consaus d'Amours*, which makes colourful use of the scholastic image of the tree of love. Both in this Chapter, and in the Chapter on *The Dove's Neck-Ring*, I make note of some of the peculiar features of the most persistent and, incidentally, best documented of medieval scientific erotic themes: the theme of the malady of love. In Chapter Four I examine the function of that other important
medieval scientific erotic topos: the love potion. Here, we are obviously in the realm of pseudo-science or quackery.

In the second half of the essay I look at how some of the finest of Romantic and post-Romantic scientists of love delineate distinctively modern variations on these medieval themes. In Chapter Five I attempt to establish the nature of the bonds which link two of the finest science-inspired Romantic texts on love, Goethe’s Die Wahlverwandtschaften and Stendhal’s De l'Amour, and by so doing make explicit the implications for love of the use in erotic analogies, of the experimental facet of science.

In Chapter Six I reflect upon a crucial innovation in modern erotic science: the development in Stendhal of an explicitly comparative view of love. The search for the traditional origins of this comparative impulse is found to be helpful in further refining one’s understanding of the nature of the love-treatise. In Chapter Seven, the final chapter of the essay, I attempt to document a particular shift of emphasis which occurs in the scientific love literature written after Goethe and Stendhal: a shift away from Romantic natural scientific analogies towards artificial technical and even mathematical analogies for love. How significant are these new metaphors? Is modern love itself becoming more abstract and unnatural?

Love is often considered to be something that not only is, but also should be innocent before the world of science. In the following pages I challenge both preconceptions.
Chapter I

The Shape of the Love-Treatise: Ibn Hazm's The Dove's Neck-Ring

Ibn Hazm's monumental treatise on love, The Dove's Neck-Ring, provides perhaps the best jumping-off point for a survey of salient features of the medieval science of love. This work occupies a vital pivotal position: it provides a rich conceptual, if not an actual historical, link between early Greek speculations on the science of love, and the later contributions to the subject of writers in medieval Christian culture. Within the great Arabic tradition of treatises on love, The Dove's Neck-Ring exists as a representative, although at the same time highly individual work. Ibn Hazm simultaneously crystallizes much that is best in the tradition and impresses his material with a distinctive style and tone. The generical tradition within which Ibn Hazm is writing has been minutely documented by Lois Giffen. Composed of a mixture of prosaic and poetic discourse, treatises such as The Dove's Neck-Ring are ultimately defined, according to Giffen, by a

twofold division of content into (1) a discussion of the essence, nature, causes, names, and kinds of love and the differences between these kinds, and (2) the "circumstances" (ahwāl) of the lovers, a term which covers many kinds of theorizing about the conduct of lovers and schemes for classifying lovers and their love affairs.¹

In short, such works subject love to the systematic, theoretical, analytical, descriptive, and classificatory modes of inquiry of science.

At the beginning of The Dove's Neck-Ring, Ibn Hazm writes that his study of love had its genesis in a friend's request for "an essay describing love, its aspects, its causes and its accidents; and what
happens in it and to it—on the principle of truthfulness." He then makes claims for the authenticity and veracity of his work: "mention must needs be made of what I saw as an eye-witness, what I learned through assiduous study, and what I was told by trustworthy men of my time." Whether the specific rhetorical vehicle be one of Ibn Hazm's own poems, a story, or a piece of prose, what connects all of these elements like the thread connecting the beads of a necklace—to use a traditional Arabic metaphor for a literary work—would appear to be precisely the imperative toward a truthful description of the phenomenon of love.

Certain of the more straightforward scientific strategies which are employed in The Dove's Neck-Ring should be mentioned at the start. The most obvious of these is the analytical division of the subject-matter into a diversity of specialized topics such as "Signs of Love" and "Love at First Sight." Another extrinsically scientific feature is the logical patterning of the unfolding argument, which in large part conforms to the generical norm abstracted by Giffen. We find catalogues and classifications of the different kinds and degrees of love. In conjunction with these comparative listings, we find precise etymological distinctions which refine the categorizations of erotic phenomena.

But it is through an examination of the important scientific disciplines which furnish Ibn Hazm with distinctive metaphors and methodologies that we can most easily arrive at an appreciation of the rich character of his science of love. The discipline of medicine provides an appropriate starting point, not just because of its position of centrality in The Dove's Neck-Ring and in the extensive Arabic tradition of works on love, but also because of its genetic relevance to
the history of the science of love as a whole. The description of love
as a disease or madness originates in the early writings of important
Greek physicians like Galen. Lowes gives us a brief summary of the
history of this diagnosis:

Galen refers to the leanness of lovers, and especially to
the quickening of the pulse at the sight of the object of
the lover's passion. In the late writers, however, either
in connection with the discussion of mania or melancholy,
or as constituting a section by itself, the treatment of
\( \text{\textgamma} \) as one of the recognized cerebral maladies becomes
explicit.\(^3\)

Like other maladies, the sickness of love possesses distinctive causes,
symptoms, and cures. The content of a dubious fragment—although one
which is most likely rooted in Greek medicine—found in a number of
Arabic treatises on love, is neatly summarized by Giffen as being a
description of love as "a serious pathological syndrome affecting the
brain, the emotions, and the digestive and circulatory systems."\(^4\) This
objective and clinical account of the disease provides a fruitful
contrast with Ibn Hazm's more subjective rendering:

Love . . . is an incurable disease and in it there is
remedy against it, according to the manner of dealing
with it; it is a delightful condition and a disease
yearned for: he who is free from the disease does not
like to stay immune, he who suffers from it does not
find pleasure in being cured of it; it makes appear
beautiful to a man what he has been abstaining from
because of shame, and makes appear easy to him what
was difficult for him, to the extent of changing in-
born characteristics and innate traits. . . .(13)

A less happy picture of the disease is found in the chapter in The
Dove's Neck-Ring on "Illness". A story of tormented passionate love
is briefly detailed, and then followed by a deft theoretical analysis:

This sort of thing . . . originates from a fixed idea,
and when this idea gets the upper hand, and the un-
balancement of mind due to melancholy overpowers the
patient, the case gets out of the province of love and
enters the province of mental unbalancement and madness; and if the administering of remedy to help the patient is neglected in the beginning the illness grows very grave, and there is no remedy for it except union.(150)

At one point, Ibn Hazm is the lyrical celebrator of the delightful disease of love; at another, he is the less impassioned though no less sympathetic observer of the fatal progress of a particular case of the love malady. The reductive and baneful metaphor of the malady of love has, with no loss of its tragic implications, been humanized.

Astronomy provides Ibn Hazm with a number of rather curious conceits. In one of his poems, the lover is described as the guardian of "all the fixed stars and planets: And they and the night resemble the fires of passion/Which have been kindled in my thought coming from the dark night." The poem ends with the lines: "If Ptolemy were living he would have been certain that I am/ The strongest of men in the observation of the orbits of stars!"(20) A similar though more sophisticated cosmic metaphor is elaborated in another poem which begins with the lines:

Burning with an ardent desire, afflicted, he does not sleep, a victim of insomnia: By reason of the wine of false accusations he is constantly brooding, And in a moment he shows you wonderful things: Becomes unfriendly, and amiable, and is brought near, and is removed; As if separation and reproof, and avoidance and reconciliation, Were conjunction and divergence (of stars), and calamity and happiness.(20-21)

Both poems point forward centuries to the strained and witty erotic science of John Donne.5

Physics provides Ibn Hazm with two analogies for what transpires in love on a refined spiritual plane. Love is defined at the beginning of the treatise as "a reunion of parts of the souls, separated in this
creation (world), within their original higher element."(7) Love is a "spiritual approval and a mutual commingling of souls."(9) But how account for a disjunction or imbalance in the attraction? The explanation put forward is that "the soul of him who does not love the one who loves him is surrounded on all sides by some mysterious accidents, and by a veil of earthly nature which envelops it, so that it does not feel (come in sensory contact) with the part which was joined to it before its present dwelling; but if it were freed, the two would have an equal share in the reunion and in love."(9-10) The free soul must move in the direction of the other soul and set it free from earthly constraints. A densely argued analogy is here set up between the attractions which transpire at a profound level in love and the gravitations which occur in the invisible fields of force set up between a magnet and an iron. Similarly, claims Ibn Hazm, the fire that is latent in a flint will remain hidden unless friction occurs between the flint and stone.

Optics is another science upon which Ibn Hazm draws to illuminate his subtle insights into the phenomenon of love. The eye, he claims, "is the vanguard of the soul, and its right-guiding indicator, and its brightly shining mirror, by which realities are known, qualities of things are mastered thoroughly, and sensations are understood."(44-45) There follows an elaborate "illustration of the power of perception of the eye"(45) involving an experimental use of two mirrors. The science of physiognomy is invoked during this discussion. The physiognomist can employ his delicate science in making interpretations of the subtle signs in the glance of the eye. In another context, Ibn Hazm claims that an expert physiognomist can rival a shrewd physician in his ability
to distinguish the symptoms of love-sickness from those of other illnesses. (148)

Physiology is another science which contributes to Ibn Hazm's multidimensional treatise. We find, for example, a short disquisition on the erotic significance of the lachrymal glands. The description is quickly modulated into more poetic evocations of the omnipresence in love of weeping. (22-24)

The intimate and reciprocal nature of the relationship between the poetic and the prosaic elements in Ibn Hazm's treatise cannot be overstressed. Lowes's idea of "osmosis" between scientific or theoretical commentary on love and literary or poetic discourse is highly apposite here. There is no disjunction in The Dove's Neck-Ring between poetry and science, precisely because Ibn Hazm appreciates both the imaginative possibilities of science and the scientific possibilities of poetry. What, then, is the purpose of this imaginative science of love? For an answer we must look in the directions of both science and love. What characterizes science is its faith in man's ability to comprehend and in certain measure control what appears to be incomprehensible or uncontrollable. It is precisely these qualities of incomprehensibility and fatality which have from the very beginning been attributed to love. The application of the sciences to love presents the possibility of control and comprehension. In the metaphor of love as a disease we find the implied presence of the physician who can diagnose and cure the malady. In the metaphor of love as the attraction between magnet and iron we discover the hand of the experimenter who takes the iron and checks the attraction. Applied in a sensitive fashion to the phenomenon of love, such metaphors fulfil a profoundly dualistic function. On the
one hand, they highlight the fatality or inevitability of passion: on the other, they point to the possibility of control of that passion. This duality can serve to dramatize the ethical dimensions of love. If the disease of love is viewed in a positive light, its only necessary cure is administered by the beloved. If, however, this disease is viewed in a negative light, the figure of the spiritual physician comes to the foreground. In surveying the whole Arabic tradition of profane works on love, Giffen invokes the notion of a "great divide" between those writers who celebrate passionate and tragic love and those who condemn it in the name of sacred Islamic Law. Ibn Hazm, at least in The Dove's Neck-Ring, belongs to the former group. In his case, the possibilities offered by science for the understanding and control of passionate love are not exploited for the purpose of reinforcing a spiritual condemnation of the phenomenon. What we find in Ibn Hazm's science of love is a refinement in the understanding of the nature of love, and an advocacy of a greater refinement in the manners and morals of true passionate lovers.
Footnotes


3John Livingston Lowes, "The Loveres Maladye of Hereos," Modern Philology, 11 (1914), p. 518. This classic essay is one of the very few critical works which seeks to make sense of the mysteries of erotic science. Lowes demonstrates the linguistic relationship between the two extremes—scientific and poetic—of the medieval scientific erotic tradition by pinpointing a basic duality in the term amor hereos: on the one hand, it exists as an element in the discourse of medieval medicine; on the other, it exists as an element in literary and poetic discourse, notably in Chaucer's Knight's Tale. Lowes writes of the "mutual influence—a sort of 'osmosis'" (p. 543) that characterizes the relationship between medieval and Renaissance literature which treats of the "effects of love" (p. 543) and the descriptions of the signa of love in medical treatises.


6Giffen, p. 117.
Chapter II

The Mock-Science of Love: Ovid's *Ars Amatoria* and Andreas Capellanus' *De Amore*

Such refinement is hardly in evidence in the next important medieval work which deserves our attention. Although there is no evidence of actual influence, *The Dove's Neck-Ring* of Ibn Hazm and the *De Amore* of Andreas Capellanus display a certain family resemblance. Both are formal discourses or treatises which employ the modes of inquiry and analysis appropriate to such texts. In both works we find the elaborate subdivision of the subject-matter into specialized topics, the drawing of distinctions among different stages and kinds of love, and the marshalling of authoritative and scholarly opinion. Neither treatise is purely scientific in its formal texture; both texts embody a number of non-scientific or literary modes of discourse. In addition, we discover in both *The Dove's Neck-Ring* and the *De Amore* a formalization or codification of appropriate manners and behaviour in love. But in the all-important matters of tone and intention it would be difficult to think of two more antithetical works. Andreas' science of love bears only a superficial or external similarity to that of Ibn Hazm.

A much more germane antecedent to Andreas' *De Amore* is of course Ovid's *Ars Amatoria*. We have here an example of influence and continuity not just in the matter of form or genre but also in the matter of tone or spirit. The common genre is of course the "Art of Love." Some justification is therefore obviously required for speaking of Ovid's or Andreas' "science of love." The apparent contradiction between
these two terms dissolves on a closer examination of what is actually comprehended in the word *ars*. The basic denotation of the word is the concept of "skill in joining something, combining, working." However, "with the advancement of Roman culture," the dictionary tells us, the word was "carried entirely beyond the sphere of the common pursuits of life, into that of artistic and scientific action." Among its numerous meanings, *ars* can refer to: "any physical or mental activity, so far as it is practically exhibited"; "the knowledge, art, skill, workmanship, employed in effecting or working upon an object"; "science, knowledge"; "the theory of any art or science"; and "cunning, artifice, fraud, stratagem." The Latin word *ars* has a certain semantic expansiveness which is somewhat lost in modern English translation. We need only look at treatises such as Hesiod's *Works and Days* or Lucretius' *De Rerum Natura* in order to appreciate how very closely intermeshed were the scientific and poetic enterprises in Classical culture. The point is that before Ovid, virtually every subject under the sun had been studied as an "art". The natural medium for such an approach to a subject was the poetic or prosaic technical treatise. Ovid was the first writer to apply the rhetorical formulae and strategies of a didactic technical treatise to the subject of love. To heighten the irony, he wrote his treatise, as L. P. Wilkinson has pointed out, "in elegiacs, the metre of love-poetry."

To speak of Ovid's science of love is therefore to appreciate the implications of this appropriation, or, more precisely, this travesty of the didactic treatise. The crucial implication is that love becomes, or is seen as being, primarily a technique or a practical discipline. The Greek physicians might picture love in terms of the irrational— as
either a fatal disease or an uncontrollable madness; the Greek and Roman poets and tragedians might treat of the same theme in an idealized poetic vein; Plato might delineate love in terms of a contemplative discipline: but Ovid, at least in his *Ars Amatoria*, will have nothing to do with such conceptions. In this frivolous treatise, there is no sense of the seriousness or fatality of passion. Rather, love is a practical activity like many others that can be mastered with competent instruction. The colourful imagery and analogies used in the treatise reinforce this idea of mastery or control. Love is compared to such activities as sailing, driving a chariot, hunting, fishing, and war. Like these activities, love is defined by its necessary rules, strategies, and skills. While these various analogies are of course invoked in a spirit of pure frivolity, they nevertheless provoke a certain moral recoil. This is particularly true in the case of the analogy Ovid sets up between love and war. A commonplace of Latin poetry, this particular analogy is extended to vulgar extremes in Ovid's treatise. Ovid compares the successful lover to a soldier who through courage, cunning, deception, and reconnaissance, overcomes every obstacle and every danger, and succeeds in discovering, and then attacking and capturing the enemy. In sexual terms, the military victory translates as assault or rape. As for Ovid's other analogies for love, while they may be less violent than the military analogy, they are all equally instrumental and utilitarian in nature. One might call Ovid a technologist of desire.

In *The Allegory of Love*, C. S. Lewis writes that "the worship of the god Amor had been a mock-religion in Ovid's *Art of Love*." Various medieval writers inherited Ovid's idea of a mock-religion and elaborated it in terms of medieval Christianity. It is possible to see at work in
Ovid's treatise is an analogous worship of the god *Ars*, a mock-science of love. It is mainly in the light of this Ovidian inheritance that we must read Andreas Capellanus' *De Amore*.

It would seem appropriate, before exploring certain specific features of Andreas' mock-science of love, to gain some notion of the ends that this science was intended to serve. On this question of Andreas' intentions in writing the *De Amore*, it seems sensible to follow the lead of what might be termed the sceptical school of Andreas scholarship. Up until the latter half of our own century, the long-standing critical tendency had been to read the *De Amore* as a sacred text of the "courtly love" tradition. D. W. Robertson was one of the first critics to challenge this orthodoxy. In Robertson's view, Andreas' treatise is humorously ironical. Far from seriously celebrating adulterous love, the work negatively reinforces, through the devices of irony, the values of Christianity. Andreas undoubtedly acquired his taste for humorous mockery from Ovid. Because of it, and because of his skillful and perceptive handling of his themes, he belongs to the tradition of Christian humanistic literature which includes such writers as Jean de Meun, Boccaccio, Chaucer, and Rabelais. The fact that modern scholars have failed to see his humor is nothing in his disfavor.  

E. Talbot Donaldson is another critic who has questioned the validity of the solemn orthodox approach to the *De Amore*, typified by C. S. Lewis. While rejecting as unconvincing Robertson's attribution of pious intention to Andreas, Donaldson seconds Robertson's conviction that the *De Amore* is a completely ironical work. Donaldson concludes that "Andreas thought that he was producing a jeu d'esprit by re-writing Ovid's *Art of Love* and *Remedies of Love* for his own time."  

Far from being intended as a serious tribute to Marie de Champagne and
her court of immoral love, the De Amore was most probably "designed for clerical ears, for ecclesiasts, probably celibates who were in no great danger of having their morals ruined by it, but who were intellectually alert and might appreciate a scholastic joke on the love-talking ladies of the laity." A third critic who refuses to swallow whole the traditional pieties about Andreas and the subject of courtly love is Peter Dronke. After summarizing some of the more consequential recent critical studies of Andreas and the tradition of love-casuistry in which his treatise is embedded, Dronke concludes:

Some aristocrats may well have read this lengthy Latin prose treatise, yet its first readership must surely have been chiefly among clerks rather than aristocracy, clerks eager for gossip and scandal, true or invented, about the great and their way of life—eager for it because this was not their own way of life. What Andreas gave them was a fund of piquant anecdotes and imaginary conversations—nugae curialium—as well as some motifs of romance and lai (the purgatory of cruel beauties, the Arthurian setting for the rules of love) seasoning a humorously didactic work. In this work as a whole, the positions of the worldly amorist and of the pious misogynist are made to appear equally outrageous, by means of a dialectic that is both a Scholastic Sic et Non and an Ovidian Ars Amatoria—Remedia Amoris—in short, an essentially clerical performance.

All three of these critics, therefore, stress the importance of Ovid as a key to the understanding of the spirit of Andreas' treatise. Like Ovid, Andreas looks to the most respectable and authoritative of genres—the formal didactic treatise—to provide the rhetorical medium for his mocking treatment of love. Andreas' De Amore is clearly a sophisticated piece of satire written in the formal, comprehensive, and systematic rhetorical manner of the Schoolmen. The immediately apparent formal differences between Ovid's Ars Amatoria and the De Amore—the conciseness and rhetorical uniformity of the former, and the more elaborate and diversified texture of the latter—are no
doubt attributable, at least in part, to basic differences in structure between the Classical scientific treatise and its medieval counterpart. Rhetorical abbreviation is of course one of the celebrated virtues of Classical style: rhetorical elaboration or amplification is a trademark of medieval style. This is not to say that all medieval treatises on love are as elaborate as the De Amore, but only to put forward a useful generalization. The treatise on love lends itself to infinite extension and expansion not only in terms of length, but also in terms of content. In the interstices of Andreas' scientific framework are found a number of literary elements which fulfil, in relation to the more explicitly scientific elements, certain exemplary or illustrative purposes. But it is the pseudo-scientific frame which sets the tone for the whole work. Another reason for the rhetorical elaborateness of the De Amore suggests itself: like Chaucer, in the Nun's Priest's Tale, Andreas is indulging in a parody of the rhetorical excesses of medieval theological interpreters.

Like Ovid, Andreas is essentially playing with the comic implications of reducing love to a discipline or science. Andreas assumes the role of a pedagogue who displays his expertise in the doctrina, disciplina, and ars of love, for the edification of his "revered" but callow friend Walter. Scholars have spent a great deal of time trying to identify this friend; but to search for the historical Walter is perhaps to miss the point. There is something terribly conventional about Walter. In other words, if Walter did not exist it would have been necessary to invent him—or a reasonable facsimile. Given a discipline or science of love, and given a master or teacher of that discipline, logic demands the presence of a third element, which is obviously the
student in need of instruction in love. Ovid makes use of a sort of collective Walter: all those who require information on how to love. Ibn Hazm, as we have already noted, writes his treatise to fulfil a friend's demand for a truthful description of love. Richard de Fournival, as we shall see, claims that his advice on love is meant for the edification of his younger sister. The use of this convention of claiming to write on the subject of love at the request, or for the edification of a friend, may, however, be of deeper import. The invocation of this convention can create the pretext for a broader, more liberal description of love than might otherwise seem appropriate. It can provide the means whereby a writer may dissociate himself from embarrassing material. To what degree is love—for a writer, an age, or a whole civilization—a taboo subject, profane inquiry into which can be justified only in scientific or educational terms?

Every part of the machinery of a serious technical didactic treatise is made to contribute to Andreas' absurd travesty of science, education, and love. A few examples may suffice to characterize the tenor of his science of love. The serious medical diagnosis of love as a disease or malady with certain definite symptoms is given parodic treatment in the De Amore, most obviously in a number of the notorious rules of love: "Every lover regularly turns pale in the presence of his beloved"; "When a lover suddenly catches sight of his beloved his heart palpitates"; "He whom the thought of love vexes eats and sleeps very little."9 These and all the other rules of love have traditionally been taken completely seriously. An appreciation of Andreas' mock-scientific tone enables us to reread these rules as a frivolous catalogue of clichés about love—abstracted, no doubt, from serious
romances—set out in the authoritative, solemn manner of the Schoolmen. The elaborate dialogues between aspiring lovers of various classes can be read in the same light. The point about these dialogues is that the lovers use the sophisticated rhetoric and logic of scholarship in a totally unscholarly way. The debaters shamelessly flout the basic rules of logic in an effort to score points in an outrageous game of amorous one-upmanship. The same facetious spirit governs the description of the etymology of the word love:

Love gets its name (amor) from the word for hook (amus), which means "to capture" or "to be captured," for he who is in love is captured in the chains of desire and wishes to capture someone else with his hook. Just as a skilled fisherman tries to attract fishes by his bait and to capture them on his crooked hook, so the man who is a captive of love tries to attract another person by his allurements and exerts all his efforts to unite two different hearts with an intangible bond, or if they are already united he tries to keep them so forever.¹⁰

The invocation of this analogy between love and fishing, and of other technical analogies—analologies which compare love and hunting and love and war—leaves us in no doubt that we are in Ovidian terrain. Andreas, like Ovid, reduces love to the level of mundane practicality.

We are now in a better position to appreciate just how radically different are the uses to which the love-science equation may be put. In The Dove's Neck-Ring, as I have tried to show, Ibn Hazm uses the dissective and symbolic powers of science to point to the subtle phases and solemn mysteries of passionate love. Ovid and Andreas Capellanus, on the other hand, use science in order to limit, in mocking fashion, the subtlety and mystery of love.
Footnotes


7 Donaldson, p. 161.


10 Andreas Capellanus, p. 31.
Chapter III

The Tree of Love: Richard de Fournival's Consaus d'Amours

A good antidote to the cynical science of love that we find in Andreas' De Amore can be discovered in a relatively unknown medieval French treatise, the Consaus d'Amours of Richard de Fournival (1201-60). Richard was the son of Roger de Fournival, physician to the king of France. Trained as a physician himself, Richard later became deacon, then, ultimately, chancellor of the cathedral of Amiens. Richard's talents opened up in a number of directions. He was an important bibliographer—of medical books in particular. He was adept in the composition of chansons. He was probably the author of a long pseudo-Ovidian poem entitled De Vetula, translated as The Old Woman or Ovid's Last Love. His main obsession, however, seems to have been the subject of love. In addition to the Consaus d'Amours, Richard wrote a Bestiaire d'Amours and a Poissance d'Amours. The picture that we get of Richard is of a rather worldly cleric with catholic interests.¹

There can be little doubt that Richard studied and was influenced by Andreas' treatise. Although they are worlds apart in the matter of tone, the Consaus d'Amours and the De Amore share important conventional similarities. These conventional similarities are the by now familiar definitive characteristics of the genre of the formal didactic treatise on love. Like Andreas, Richard appropriates the form and rhetorical strategies of a didactic technical treatise in order to study, in a comprehensive, analytic, and systematic manner, the subject of love. Love in general is defined, analytic distinctions are drawn among
different kinds of love, the different stages of love are pinpointed, and the conditions or circumstances of love and lovers are explored. Also, like Andreas, Richard claims to be writing his discourse at the prompting, and for the edification of a young person new to the experience of love: in his case, for the enlightenment of his "beles tres douce suer."(5) As in the case of Andreas, a callow student is invented in order to round out an educational enterprise involving an erotic discipline and an earnest pedagogue. This whole strategy enables Richard to mask what turns out to be a serious celebration of passionate romantic love—surely a questionable occupation for a cleric—behind the objective and dispassionate imperatives of science and education. In spite, or perhaps precisely because of this imposition of scientific restraint, the emotional bias of Richard is strongly displayed. In this respect, and in a number of others, Richard is closer to the erotic science of Ibn Hazm than to that of Andreas.

Unlike Andreas or Ovid, Richard does not presume or pretend to be able to reduce love completely to scientific explanation or prescription. Like Ibn Hazm, Richard uses science both to describe certain cultural or rational dimensions of love as well as to express or suggest what is irrational, uncontrollable, or natural about love. The central informing metaphor in the Consaus d'Amours—that of the tree of love—beautifully fulfils this profoundly dualistic role. On the one hand, love is compared to a real, branching, blossoming, flowering tree—an incredibly suggestive and colourful image. On the other hand, love is described in terms of an artificial, schematic, or genealogical tree superimposed on the real tree. We therefore have love viewed simultaneously as both a beautiful and fruitful natural process, and also as something that is
involved in the artifices of culture. This duality was already present in the Trees of the Virtues which had been elaborated by medieval religious writers. At the root of these Good Trees was the force of Christian love, from which all the other virtues branched and blossomed. In the Consauns d'Amours Richard adapts "the religious imagery to profane purposes." In his scheme of things, it is passionately individual profane love, not Christian love, which is at the root of the tree of love:

. . . toutes les autres amours naissent de ceste amour. Car c'est li estos dont les flourss et li fruit des autres amours naissent et est la droite racine de toutes vertus et materre de tous biens. . . .(8)

This passage is pivotal in the conceptual development of Richard's treatise. It marks the division between a brief initial survey of the different kinds of love which spring from passionate personal love, and the larger second section of the treatise which presents a detailed analysis of the nature of this particular kind of love, and an appreciation of the conditions and circumstances that are required in order to sustain it.

After brief prefatory remarks, love in general is defined; good or virtuous love is distinguished from evil love; spiritual love is distinguished from temporal love; temporal love is divided into familial love "ki vient de force de nature"(8) and love for mankind "ki naist simplement de volenté de cuer";(8) and then, finally, this love which springs from the heart is divided into two types:

. . . il est amours de volenté simple et amours de volenté enracinée. Amours de volenté simple est la commune volentés c'on a as gens. Amours de volenté enracinée si est quant on a une boine volenté en aucune personne sur toutes autres, et ceste amours ne peut estre dounée fors k'a une personne, car
"Richard has thus led us skillfully down the branches of the genealogical
tree of love, to the one love that truly interests him here, the heart-
feast love for one person alone." The schematic or genealogical tree of
love is an instance of science attempting to rationalize, order,
comprehend, and evaluate the natural impulses of the heart, the organic
blossoming of which is comprehended in the metaphor of the real tree of
love.

The second part of the Consuls d'Amours, which is a description and
celebration of Richard's conception of romantic personal love, displays
a number of further scientific features. The initial definition of love
"Amours en general n'est autre cose for que ardeurs de pensee ki
gouverne le volente du cuer"—is refined through the subtle delinea-
tion and exposition of a number of antithetical, paradoxical statements
about love—definitions which Richard ascribes to John of Garland:

Amours est une foursenerie de pensée, fus sans estaindre,
fains sans soeler, cous mals, boine douchours, plaisans
folie, travaus sans repos, et repos sans travel.

Richard then proceeds to describe "comment amours se conçoit es cuers des
amants." Love

se conçoit es cuers des gens en molt merveilleuse maniere,
car concevemens d'amours n'est autre cose for que boine
volentés ki vient soudainement de le racine du cuer . . .

Good repute, envy, and greed may be the sources of other kinds of love.
These last two causes are quickly dismissed as having nothing to do with
authentic and true love. Love conceived through good repute lacks the
naturalness and spontaneity of true love. Richard now proceeds to show
"quel doivent estre li cuer d'amours se herberge." Love is seen as
the merit of the noble soul who possesses humility, refinement, gentility,
tactfulness, and honesty: "Li cuer des amans doivent estre plain de noblece."(12) We are here very close to the spirit of Ibn Hazm's The Dove's Neck-Ring, and also, as we shall see, to the spirit of Stendhal's De l'Amour.

Richard then goes on to discuss the nature of the process of falling in love. According to Richard, "la droite voie d'amours sont li œul car ce sont les fenestres dou cuer et ont lor racines u cuer."(14) The glance, which expresses the language of the heart, is therefore the medium of love. If the beloved possesses a loving heart, she will welcome the love conveyed by a noble lover's glance into her heart:

En tele maniere que vous oés, l'amour ki vient des iex de l'un entré par les iex et se conçoit u cuer de l'autre et molt de gens s'emspervellent comment ce puet estre. Mais certes on ne s'en doit point esmervellier. S'amours ki est dame et royn de toutes les vertus a aucune especialité sur toutes autres vertus, et nous trouvons d'Aristote qui conte es natures des bestes que li cocatris a si fort et si vertueus venin que de son regart envenime il et tue les gens, et puis que des malvaises vertus on truue que l'une a especial vertu sur les autres, on ne se doit pas mervellier se des boines vertus est aucune ki a especial vertu ke les autres n'ont pas.(14)

The logic of his argument mirroring the logical development of love itself, Richard now pinpoints the three stages of love: "amours encommencié, amours affremée et amours acomplie."(14) This section of the Consaus d'Amours clearly displays the influence of Andreas, especially when Richard goes on to reject the idea that there is a fourth stage of love "ki est apelée amours estable, c'est a savoir quant l'amours vient jusques au mariage et qu'elle est confremée par les sacramens de Sainte Eglise."(15) Virtually paraphrasing Andreas, and echoing Heloise's famous remarks on the subject, Richard writes that

... amours de mariage est amour de dete et l'amours dont je vous parole est amours de grace et ja soit ce que ce soit
The next section of Richard's treatise outlines three kinds of love-sickness: "La premiere maladie [d'amours] si est appelée blance fievre, la seconde li maus sans repos, la tierce li maus desguisés." (15)

Richard's terms neatly categorize the stages in the progress of the familiar malady of love. The first stage is marked by the paleness of the lover and his inability to eat or sleep; the second stage is marked by the lover's restless pilgrimages to wherever the beloved might be; and the third stage involves the lover's seeming loss of memory and mind and his absolute fixation on the beloved. Richard remarks that love-sickness, unlike other illnesses, is not physically induced, but rather arises from the "grant desirrier ki carcent le cuer." (15)

Richard then discusses certain obstacles to the fruition of love and the specific ways in which these obstacles may be overcome. There is little of scientific interest in this discussion. In some respects it is a pleasantly abbreviated version of Andreas' interminable debates between lovers of different classes. It differs from them, however, in the highly moral nature of its conclusions. Richard brings his treatise to a close with an account of the moment of his personal conversion to love: "Il avint que quant je fui nouvelement chevaliers j'estoie li plus orguelleus hom envers amours ki onques fust. . . ." (19) One day, Richard suddenly found himself in "le forest de longue pensée" in which he discovered "le court le dieu d'amours." (19) Here he was privileged in witnessing the indescribable delights of true lovers, the dreadful sufferings of the promiscuous, and the torments of the proud who scorn love. The whole episode is treated in a highly allegorical vein. The
precedent for this epilogue to Richard's treatise is clearly the interpo­
lated narrative in Andreas' De Amore which describes the adventures
of a callow squire in the land of the King and Queen of Love.

Richard's numerous borrowings from Andreas, and also from Ovid,
Aristotle, and Cicero and his twelfth-century Christian interpreters
Pierre de Blois and Aelred of Rievaux, point us in the direction of
another important convention of the genre of the love-treatise: its
plagiaristic or encyclopaedic dimension. This dimension is clearly
related to the scientific aspect of these treatises, for the simple
reason that any treatise, by definition, takes as its purpose the
exhaustive and comprehensive treatment of its subject. An important part
of the rhetoric of treatises is precisely the marshalling of traditional,
scholarly, authoritative, and authentic opinion. For example, in the
Arabic tradition of love-treatises, one finds the invocation of whole
chains of authorities in obvious imitation of the practice of writers of
theological treatises who transmit the names of authenticating authori­
ties. The rhetoric of attribution is not nearly so elaborate in writers
such as De Fournival. Indebtedness is often not even acknowledged. The
point is that our cherished modern conception of originality is largely
irrelevant to the love-treatise. When judged by the criterion of
literary originality, Richard de Fournival's Consuls d'Amours appears to
be of rather limited intrinsic merit. When studied in terms of the
conventions of its genre, the work acquires an interest out of all
proportion to its size.
Footnotes


2 The Comedy of Eros, p. 97.

3 Ibid., p. 95.
Chapter IV

The Love Potion

Although the formal treatise is the most common rhetorical vehicle of love-science in the Middle Ages, it is by no means the only one. The discourse of medieval erotic science can also be discovered integrated into the rhetoric of more imaginative forms of writing. The language of disease and madness, for instance, permeates not only the love treatise—as we have seen in several examples—but also the poetry of love. John Livingston Lowes, as already noted, provided a classic account of this relationship. A less obvious medieval example of a scientific erotic theme being present in both the love-treatise and more imaginative literature is the love potion.

The love potion or philtre has from Classical times been one important part of the general pseudo-science of aphrodisiacs. Greek physicians claimed expertise not only in the subject of the malady of love but also in the matters of inducing and preserving love. Just as love-sickness took its place in catalogues of physical and mental diseases, so the love potion was studied as part of the pharmacological discipline. Though dressed up in the authoritative clothing of science, the love potion had from the very beginning rather more to do with medical quackery and magic than with true science. This ambiguity persists into the Middle Ages—the period in which the love potion acquires its richest literary applications—where we find physicians dealing, as a matter of course, in sundry magical and herbal amatory arts. This uncertain existence between scientific and magical discourse is just one
of the important ambiguities in the love potion. Another crucial ambiguity is discovered in the etymology of the word potion. The Latin potio refers to a draught, either of poison or medicine. This dualism is fully explicit in the Old French poison. This linguistic ambiguity reflects the potentially dangerous, often poisonous aspects of love magic. Charlatans, witches, magicians and quacks have for centuries preyed on foolish, gullible, and desperate lovers with a whole arsenal of amatory panaceas.

But it is the workings of the love potion in serious literature, particularly in the story of Tristan and Iseult, which concerns us here, because it is only with the imprint of poetic genius that the love potion acquires its deepest ambiguities. The question of the immediate source of the love potion theme in the story of Tristan and Iseult need not detain us. As Gertrude Schoepperle has written, "There appears no reason to affirm any more than to deny that there may have been a love-potion in the Celtic stories of Tristan. Love potions are universal in primitive literature and occur frequently in Celtic tradition." Whenever and however the motif of the love potion entered the Tristan story, the important thing is to appreciate the transmutation of the purely instrumental aphrodisiac into an incredibly suggestive symbol of the nature and power of passionate love. What are some of the salient features of the love potion as we find it described in the Tristan story? First, and before all, the love potion is the actual, even if magical, cause of the love of Tristan and Iseult. This fact tends to be obscured in modern purely psychological analyses of the theme. Within the bounds of the fictional setting the love potion is not purely a symbol of passionate love, but its real cause. The love potion
is therefore unique among erotic metaphors in that it is really more
than just a metaphor—it is a technique, an instrument that is
productive of love. By mistake, the lovers drink the love potion meant
originally to seal the marriage of King Mark and his bride Iseult. What
kind of love does the drinking of the love potion initiate? Does the
love potion as we find it at work in the Tristan stories initiate just
any kind of love, or does it initiate a special kind? Clearly the
latter. One of the first things that strikes one about this love is
that the lovers fall in love with one another absolutely simultaneously.
While some aphrodisiacs have traditionally been intended to create love
in one or the other individual in a pair of potential lovers, the love
potion in the Tristan story is intended to create a truly reciprocal
love. The lovers are absolutely unified in their love. Another funda-
mental feature of the love inspired by this love potion is its completely
involuntary and irresistible character: the lovers are viewed as being
caught up in a fateful course of events which they are completely power-
less to control. We are here far from other classic descriptions of love
in which the will, the imagination, and the intellect—that is, distinct-
ly human or cultural capacities—play a dominant role. The workings of
the love potion are delineated in starkly dehumanized terms. Dehumanized
both in the sense of "inhumane"—Iseult's perfect willingness to murder
her maid Brangane because there was a possibility that she might betray
the lovers to Mark, is the obvious instance—and also in the sense of
the word in Ortega's famous phrase "the dehumanization of art." That is,
the love potion describes love not with a human face, but in terms of
irrational magical chemistry.

As already noted, love magic had had from the very beginning certain
negative features. On this topic, Eric Maple writes,
The history of love magic had its darker side, ... for many of the aphrodisiacs which were peddled to the public were poisonous. The Roman poet Lucretius is said to have committed suicide during a bout of sexual frenzy brought on by a love potion. The magicians of Thessaly, who were the principal specialists in this line in Southern Europe, used drugs which were capable of driving a man insane, according to Juvenal.

The "magical" aspects of the love inspired by the love potion are profoundly related to its poisonous aspects. One analogy for the magical yet dangerous compulsion which is exercised by the love potion is with the song of the Sirens which also entices those who fall under its spell to their destruction. With the potion, Tristan and Iseult drink both their joy and their destruction and death. Perhaps another appropriate analogy for the effects of the potion can be seen in the forces that are unleashed in the rites associated with the worship of Dionysus, as these are depicted in Greek tragedies such as Euripides' *The Bacchae*. The Dionysian power, like the love potion, has dark and tragic as well as positive and life-affirming aspects: ecstasy and intoxication coupled with madness and destruction. Both powers exercise a frightening compulsion over those who come fully under their sway. Also like the Dionysian power, the love potion plunges its victims into a sort of moral twilight zone in which traditional religious, moral, and political constraints cease to tug at the conscience. The love potion therefore provides an excellent excuse or alibi for a passionate adulterous love which at many points flouts these moral imperatives. As long as the influence of the love potion persists, the lovers can claim that they are under a magical compulsion which relieves them of guilt and moral responsibility—much as the plea of insanity, when justified in a modern court of law, relieves persons of moral responsibility for criminal
actions committed while insane.

The irrational and uncontrollable aspects of the love potion have been stressed. However, one of the fundamental pretensions of science is the belief that the natural and the irrational can not only be named and explained, but also subjected to control. This illusion of control over the workings of passionate love is discovered in the love potion when we consider its purely technical dimensions. The very nature of a love potion or aphrodisiac is to interfere in or supplement the natural workings of desire. The love potion was originally concocted by Iseult's mother for a definite purpose: to establish love between King Mark and his bride Iseult. That this control is an illusion is shortly revealed when love, or, rather, the love potion, becomes a tool in the hands of fate. Because they are thirsty, Tristan and Iseult accidentally drink the philtre. Another element of control in the love potion is the possibility of limiting the duration of its efficacy. In two of the earliest versions of the Tristan story the efficacy of the love potion is subjected to clearly specified limitation. In Eilhart's version of the story, the lovers could be separated after four years; in Béroul's version, after three years. Vinaver has convincingly argued that these limitations in the potency of the love potion have everything to do with the formal and moral problems created by the conjoining of the theme of a "tragic conflict between vassal and over­lord" with the theme of the love of Tristan and Iseult. The limiting of the force of the love potion allows Tristan to come to his senses, become conscious of his wrongdoing, and return to a loyal observance of feudal law; it also allows Iseult to come to her senses and return to her husband Mark. Vinaver describes this ambiguous status of the love potion
productive of a love at once eternal and limited—as the natural result
of an intrinsically incoherent literary aesthetic.

Without questioning Vinaver's account of the ambiguous nature of
the love potion, let us examine this ambiguity in the terms of erotic
science. The limitation of the efficacy of the love potion represents
another technical dimension of the metaphor; it represents the pretension
of science or quasi-science to be able not only to understand but also
to control passionate love. But once again this control of the workings
of passionate love is shown to be of strictly limited if not illusory
effectiveness. The lovers might suddenly come to their senses and
attempt to subordinate their love to feudal and moral obligations,
nevertheless they do seem to be the playthings of a fateful course of
events. The love potion seems still to be at work long after its power
has supposedly diminished. Even after the deaths of the lovers, the
love potion appears to maintain its influence. It was the potion that
was responsible for the persistent growing together of the rose and vine
over the graves of Tristan and Iseult. The dehumanized scientific drama
of the love potion is a mirror in which one finds reflected the outlines
of the whole human tragedy of passionate love as it is elaborated in the
story of Tristan and Iseult.

The love potion is therefore very much analogous to the other
central erotic metaphor of the Middle Ages, that of the sickness of love.
The magician or quack-scientist with his love potion plays a role
similar to that of the physician with his explanations and cures for
love. Both metaphors view love in terms of a depersonalized affliction.
The symptoms of the love-sickness are profoundly similar to the
intoxicating effects of the love potion. Also, both afflictions are
potentially fatal. The only true cure for the love-sickness—
leaving aside the possibility of submission to the cure offered by the
spiritual physician—is to be found in the love bestowed by the beloved.
Similarly, in the case of the love potion: the lovers will and
literally do die when they are unable to possess one another. A
fascinating feature—coincidental yet perfectly logical—of the medieval
science of love is the simultaneous treatment of the two themes of the
love potion and the malady of love to be discovered not only in the
various versions of the Tristan romance, but in other great imaginative
works on love such as Chaucer's *Troilus and Criseyde*. In both stories,
a science of questionable, unlikely, or peripheral status becomes the
rhetorical vehicle for the most delicate and imaginative insights into
the tragic destinies of passionate lovers.
Footnotes

1See Chapter One, n. 3 above.


Chapter V

Love as a Scientific Experiment: Goethe's Die Wahlverwandtschaften and Stendhal's De l'Amour

Lively curiosity, bafflement, and even moral outrage greeted the appearance in 1809 in Germany of a Novelle by Goethe bearing the intriguing title Die Wahlverwandtschaften. Readers and critics had a right to be baffled not only by the origin and meaning of the strange technical concept named in the title, but also by the application of this term to a story of love. As it turned out, in 1775 the Swedish chemist Torbern Bergmann had published a treatise entitled De attractionis electivis. This technical concept of what English precisely translates as "elective affinities" was rendered rather more imprecisely in German by the term Wahlverwandtschaft. The idea of "affinity" was the key innovation in chemistry of the early eighteenth-century. In 1718 Étienne François Geoffroy, a French physician, drew up tables which displayed the relative degrees of affinity existing between acids and certain bases and between various metals and sulphur. Torbern Bergmann elaborated the most important revision of Geoffroy's tables. Besides describing and cataloguing thousands of possible chemical combinations, Bergmann sought to explain why affinities developed between certain substances and did not develop between others. Bergmann found himself resorting to an essentially metaphysical explanation for these phenomena --the "elective" in his title suggesting that some sort of choice or preference was involved in the development of affinities. In the pivotal fourth chapter of Die Wahlverwandtschaften, Goethe has two of
his characters attempt to elucidate the meaning of this paradoxical idea of "elective affinities." But if the purely scientific meaning of this concept was difficult to comprehend, how much more ambiguous was its status as the title of a tale of romantic passion. A profound act of conceptual defamiliarization was involved in the bringing together of Romantic erotic discourse and the discourse of modern chemistry. While some critics admired the love story, they saw the scientific interpolations as awkward and irrelevant. Further, and perhaps inevitably, Goethe was charged by some with immoral materialism and reductionism for allegedly reducing love to a mere matter of chemistry.

French readers, for example, were virtually unanimous in their rejection of Goethe's Novelle. In the mind and emotions of one important French contemporary of Goethe's, however, Die Wahlverwandtschaften struck a profoundly sympathetic chord. In February 1810, a year after the appearance of Goethe's Novelle in Germany, and shortly after the appearance of a French translation, we find Stendhal noting in his journal, "Le soir du 18, je lis les Affinités de Goethe, roman d'un homme d'un grand talent." A month later, Stendhal again refers to Goethe's Novelle, and in terms which suggest that the work will long reverberate in his own life and writings: to a certain Mlle Jules, an acquaintance of Stendhal's, Goethe's Novelle "semble ridicule. Passe. Il faudrait, avec une tête française, une âme à la Mozart (de la sensibilité la plus tendre et la plus profonde) pour goûter ce roman." Twenty years later, in November 1830, Stendhal's great novel Le Rouge et le Noir is published; an early chapter, detailing the nascent love of Julien Sorel and Madame de Rénaix, is appropriately entitled "Les Affinités Électives." But it is an earlier work of Stendhal's, the
treatise De l'Amour (1822), which most powerfully echoes Goethe's Die Wahlverwandtschaften.

On first glance, these two great works would appear to bear little resemblance. Goethe's work is an untypically long Novelle which yet possesses that genre's typical features: the focus on an unusual happening, a symmetrical, artificial, and fatalistic plot development, and a non-naturalistic setting and action. Stendhal's De l'Amour is an encyclopaedic treatise. Yet in a curious way, both genres work, at least on one level, in a similar fashion. By definition, a scientific treatise is a systematic, methodical, highly formalized exposition of the principles of a particular subject. Novellen, too, are typically characterized by an intensive focusing of attention upon one particular theme or situation. In both De l'Amour and Die Wahlverwandtschaften the concentrated focus of interest, the overwhelming concern, is passionate love. A number of other rhetorical similarities can be noted. In both works we find collections of aphorisms on love and diverse related subjects. In Die Wahlverwandtschaften the aphorisms form part of Ottilie's Journal. Stendhal also makes use of the form of the personal diary or journal. Both works contain important theories of love as well as interpolated Novellen which provide fictional verification of these abstract theories. Stendhal's theory of love is of course the famous one of love's crystallisations. This metaphor is a beautiful description of the lover's imaginative and intellectual idealization or transfiguration of the beloved. The lover delights in endowing the beloved with a thousand perfections. Here is the concrete image:
Laissez travailler la tête d'un amant pendant vingt-quatre heures, et voici ce que vous trouverez:

Aux mines de sel de Salzbourg, on jette, dans les profondeurs abandonnées de la mine, un rameau d'arbre effeuillé par l'hiver; deux ou trois mois après on le retire couvert de cristallisations brillantes: les plus petites branches, celles qui ne sont pas plus grosses que la patte d'une mésange, sont garnies d'une infinité de diamants, mobiles et éblouissants; on ne peut plus reconnaître le rameau primitif.

Ce que j'appelle cristallisation, c'est l'opération de l'esprit, qui tire de tout ce qui se présente la découverte que l'objet aimé a de nouvelles perfections.(8,9)

Both Die Wahlverwandtschaften and De l'Amour had their genesis in pivotal crises in the lives of their authors. Shortly after his marriage on October 17, 1806 to Christiane Vulpius, the woman with whom he had lived for more than eighteen years and with whom he had had five children, Goethe fell passionately in love with a young woman of eighteen named Minna Herzlieb. Die Wahlverwandtschaften represents Goethe's attempt somehow to come to grips with, and to illustrate, the resulting conflicts. Stendhal's De l'Amour was born from his hopelessly unhappy love for Métilde Dembowski. Both of these works are painfully intimate and confessional. Stendhal confesses that he wept while correcting the proofs of De l'Amour, the work which remained, throughout his life, his favourite among those he had written. Die Wahlverwandtschaften, similarly, was for its author a work replete with personal significance; a work of which "Goethe . . . himself spoke in the gravest terms, always with a sense of awe and humility before a spectacle that surpasses human understanding." Goethe confessed to Eckermann: "Indeed, there is not a line in the Wahlverwandtschaften that is not taken from my own experience, and there is more in it than can be gathered by any one from a first reading." Rhetorical appearances would seem to deny any confessional aspects to these texts. To veil his
erotic confession, Stendhal pretends merely to be reprinting the diary of a martyr to love named Salviati. Other pseudonymous figures appear throughout the treatise. The whole work is modelled on, and framed by, the impersonal rhetorical strategies of a scientific treatise. Of his work Stendhal writes, "C'est tout uniment une description exacte et scientifique d'une sorte de folie très rare en France."(321) Goethe masks his confession in the guise of a highly ironical and formalistic fiction. Further, he employs scientific discourse, in a way similar to Stendhal, seemingly in order to depersonalize his account of love.

It is this really quite extraordinary encompassment and fusion of scientific discourse and intimate erotic discourse which constitutes the essential similarity between Die Wahlverwandtschaften and De l'Amour. The masking and mastering of profound private suffering gives us only a part of the explanation for this strange intermixture of love and science. A broader interpretation is required. The first great tide of Romanticism and of Romantic love literature had flooded and ebbed. The subjective poetic excesses of earlier Romantic works such as Goethe's own Die Leiden des jungen Werthers demanded some sort of objective disciplined understanding, dissection, and codification. An analogy for this evolution can be discovered in the medieval erotic tradition. The medieval love-treatise in both Arabic and Latin cultures analyzes and dissects the original poetic impulse of refined courtly poetry. There exists a still broader explanation for the crucial role of science in the erotic discourse of Goethe and Stendhal. The dominant mode of discourse in post-Enlightenment culture has quite obviously been the scientific. Erotic discourse, like other modes of discourse, has tended to appropriate and mirror this dominant language.
It seems clear that Stendhal, sharing with Goethe an endless fascination with both love and science, and desiring to imitate his great contemporary by inventing his own colourful scientific symbol for love, hit upon the metaphor of love as *cristallisation* as a worthy rival theory to the theory of love's affinities. Both this theory of Stendhal's and Goethe's theory of the affinities—perhaps the greatest Romantic theories of love—acquired vital status precisely because of the colourful defamiliarisations that they embodied. Until the publication of *Die Wahlverwandtschaften* in 1809 and *De l'Amour* in 1822 neither the chemical term appropriated in the former work, nor the mineralogical term exploited in the latter possessed significance or applicability outside of scientific discourse. However, since the publication of these two works, both terms have permeated the rhetoric of love. But aside from the still perceptible and refreshing element of strangeness in these two erotic metaphors, one is struck by a number of other distinctive common elements.

What exactly are the terms of each of these metaphors? If we consult the critics we are invariably told that the nature of love is being compared to, respectively, the natural inanimate phenomenon of chemical affinities and the natural process of *cristallisation*. Goethe's metaphor is viewed as turning on a profound perception of the existence of a fundamental analogy or parallelism between two spheres or levels of reality: the animate and the inanimate. Just as chemical substances display affinities for certain other substances, so, similarly, human beings show affinities for certain of their fellows. So marked and distinct, even violent, are these affinities, that it is tempting to see more than natural necessity at work. Chemical substances, like human
beings, appear to demonstrate elective preferences for certain combinations or affinities. The chemical term Wahlverwandtschaft itself suggests this ambiguity. Wahl means choice and Verwandtschaft means kinship, both familial and general. This is indeed a paradox: a necessity which is chosen, an affinity which is elective. Stendhal's metaphor is also viewed as turning on an analogy between the inanimate world and the human. The process of cristallisation provides a natural correlative for the workings of the imagination, and in particular the imagination of the lover.

But on closer inspection, these interpretations are seen to comprehend only half the truth. If Goethe and Stendhal were merely offering us two more naturalistic explanations of love, their claims to originality would have to be restricted merely to the novelty of their choices of natural analogies. But if we look again at the two phenomena with which love is being compared, we see that both possess a crucial duality or ambiguity: the fact, explicit in both Die Wahlverwandtschaften and De l'Amour, that cristallisation and chemical bonding occur naturally, yet can be experimentally simulated and to a degree controlled through rational scientific agency. It is therefore not only with natural processes that love is being compared but also, simultaneously, with those same processes artificially created and controlled. Love as a scientific experiment! Here we have the full measure of dehumanization that is intrinsic to both metaphors: love described in terms of inanimate natural processes as well as in terms of scientific experiments.

What defines the experimental situation is of course the technical, or human intervention in natural processes. In the course of the
discussion of the affinities in Die Wahlverwandtschaften, the figure of
the chemist is invoked at several points. When the Captain attributes
the human qualities of choice, preference, or election to chemical
substances, Charlotte responds with a sceptical scientific view:

... I would never see a choice here but rather a natural
necessity and indeed hardly that; for in the last resort it
is perhaps only a matter of opportunity. Opportunity makes
relationships just as much as it makes thieves; and where
your natural substances are concerned, the choice seems to
me to lie entirely in the hands of the chemist who brings
these substances together. Once they have been brought
together, though, God help them!  

Not only can the chemist bring together affined substances, he can also
unify, by means of intermediaries, substances which naturally repulse
one another. Finally, he can break up chemical combinations through
the introduction of a substance which has an affinity for one of the
elements in a particular combination.

Goethe's complex erotic metaphor therefore possesses two dimensions:
the first being what might be termed the anthropomorphic or natural, and
the second, the experimental or scientific. What does the metaphor tell
us about love? As already noted, a certain ambiguity or incoherence
seems to characterize the natural philosophical analogy. In a prefatory
note, Goethe sought to elucidate the terms of this analogy:

It may be that the author was led to the adoption of this
curious title by his long continued studies in physics. He
knew that the natural scientists quite frequently use
ethical analogies in order to illuminate phenomena that are
not immediately within human experience; he wished, in this
case of a moral issue, to reduce a chemical analogy to its
essential spiritual meaning. This has seemed all the more
proper, as nature is one everywhere and as even the clear
realm of rational choice is inevitably shot through with
those traces of the confusing compulsion of passion which
only a higher power—possibly not in this life—can remove
completely.
If Goethe were merely promoting the idea of a natural chemistry of love, arguing that human beings, like chemical elements, are bound by natural affinities, there would be little difficulty of comprehension. The idea of affinity makes sense on both the chemical and human planes. But Goethe is attempting more: to demonstrate not only the natural, but also the "elective" quality of these affinities. What sense can be made of this highly problematic and ambiguous notion of "elective affinities"? Charlotte sensibly argues that the sole element of choice in chemical affinities rests with the potential intervention of the chemist. Here, she is merely following logical sense, which would see chemical affinities as either existing or not existing—not in any meaningful sense to be chosen. But what sense can be made of the notion of elective human affinities? When the word "affinity" is first mentioned in conversation, Charlotte immediately thinks of a pair of her cousins. Obviously, one can in no sense of the word be said to "elect" one's cousins. One must turn to the more general, non-familial meaning of affinity in order to test the notion of elective affinity. An irreducible ambiguity is seen to characterize this notion. On the one hand, common sense tells us that human, like chemical, affinities either exist or they do not exist. On the other hand, we have the human attribute of choice or election. What the chemical analogy succeeds in demonstrating is that because man participates in the affinities of nature, his loves bear an element of the necessary about them. Choice in love is therefore not absolute but limited; love involves a mixture of choice and compulsion.

To make more precise sense of the idea of "elective affinities" it is necessary to appreciate the second dimension of the metaphor—that is,
the experimental, scientific analogy. The terms of this analogy are much more evenly balanced and coherent than the terms of the anthropomorphic account of the affinities. Human intervention in natural processes links the two terms of this equation: the chemist's attempt to control chemical affinities and the lover's attempt to control human affinities. The element of election or choice in the affinities of love begins to make more sense when one becomes aware of the implications of the chemist's intervention in natural chemical affinities. The limited extrinsic controls which the chemist can exercise over natural processes mirror those which the lover can exercise over the course of his affinities. Affinities in love are elected or chosen not in any absolute sense, but in the limited senses implied by the experimental model. Quite simply, one can decide or refuse to introduce new individuals into an established social setting. The plot of _Die Wahlverwandtschaften_ is in large part generated from such a positive choice. Once Ottilie and the Captain are introduced into the domestic situation of Eduard and his wife Charlotte, natural affinities develop between Charlotte and the Captain, and Eduard and Ottilie. But just as the chemist can keep affined substances apart, so, similarly, the lover can renounce his love. This is what happens with the love of Charlotte and the Captain, as Goethe makes explicit:

The Captain was already beginning to feel that, because she was always near him, he was becoming attached to her irresistibly. He made himself avoid appearing during the hours Charlotte was usually in the park. He got up early in the morning, took care of everything, and then retired to work in his wing of the mansion. The first days on which this happened Charlotte thought his absence accidental and looked for him everywhere. Then she believed she understood him, and on that account esteemed him all the more highly. (80)

This is of course not by any means the end of their love. A later giving way to the irresistible affinities of love calls for an even greater
résistance or renunciation on the part of the lovers: the departure of
the Captain from the estate. Clearly, the lover, like the chemist, is
not innocent before nature. Love, marriage, and adultery are within
limited human control, just as the fusion and divorce of chemical
substances are within the limited control of the chemist. The virtue of
Goethe's experimental analogy is that it illuminates love as being a
natural process which is subject to cultural, artificial constraints.

In the context of the whole of Die Wahlverwandtschaften, this
experimental account of love and marriage must be viewed as just one
important link in a complex chain of symbolic descriptions of enter­
prises which seek not only to control and understand, but to supplement
and improve upon the contours of raw nature: landscape gardening,
grafting of trees, manners, law, and education are just a few examples.
The affinities must also be seen in the light of other mysterious and
elemental electrical and magnetic phenomena referred to by Goethe:
phenomena which are to a greater or lesser extent open to scientific
comprehension.

Turning again to Stendhal's metaphor of cristallisation—which is
simpler than Goethe's in the one fact that it is unclouded by any
anthropomorphizing tendency—we discover that here also the critics
tend to see only the invocation of a natural image or correlative for
the nature of love. However, if one looks closely at those passages in
De l'Amour which describe cristallisation, one discovers that what is
being described is not just the natural phenomenon of cristallisation,
but also the natural phenomenon artificially created. That the crystals
are fabricated, is made clear in the initial account of the phenomenon:
Aux mines de sel de Salzbourg, on jette, dans les profondeurs abandonnées de la mine, un rameau d'arbre effeuillé par l'hiver; deux ou trois mois après on le retire couvert de cristallisations brillantes. (8)

Love's crystallisations also display a dualistic nature. On the one hand we find Stendhal claiming that love springs from nature: "Ce phénomène, que je me permets d'appeler la cristallisation, vient de la nature qui nous commande d'avoir du plaisir et qui nous envoie le sang au cerveau..." (9) Stendhal writes that "En 1922, la physiologie nous donnera la description de la partie physique de ce phénomène" and gives his own explanation of the lover's overwrought condition—an explanation which resembles nothing more closely than the descriptions of love furnished by the Greek physicians: "Il y a une cause physique, un commencement de folie, une affluence du sang au cerveau, un désordre dans les nerfs et dans le centre cérébral." (32) On this view, love works at a natural level beyond the control of reason or will. Stendhal claims that "L'amour est comme la fièvre, il naît et s'éteint sans que la volonté y ait la moindre part." (16)

The other dimension of the metaphor of crystallisation implies a rather different picture of the nature of love. The artificial or technical account of the crystallisation process suggests that love is something unnatural and fabricated. Just as the miners at Salzbourg make beautiful crystals form around branches, so the lover creates about a real woman a complex array of beauties and perfections. If the lover can make these crystals, he can also destroy them:

Le moment le plus déchirant de l'amour jeune encore est celui où il s'aperçoit qu'il a fait un faux raisonnement et qu'il faut détruire tout un pan de cristallisation. (11)
This control over natural process is not absolute; it is limited in the way that control over the affinities is limited. Stendhal claims, for instance, that for various reasons women have less control over the cristallisation process than do men. Like Goethe, Stendhal sees love as involved in both nature and culture. Love springs from nature and yet it is the miracle of civilization. As we shall see, Stendhal's idea of a comparative science of love highlights this duality. What is natural and essential to love must be compared with what is variable and uncertain. For example, Stendhal writes that

Toutes les femmes sont les mêmes pour le fond des mouvements du cœur et des passions; les formes des passions sont différentes. Il y a la différence que donne une plus grande fortune, une plus grande culture de l'esprit, l'habitude de plus hautes pensées, et par-dessus tout, et malheureusement, un orgueil plus irritable. (71 n. 1)

A chapter in De l'Amour entitled "Le Rameau de Salzbourg" further reinforces the idea of the technical or experimental, and therefore cultural, dimension to cristallisation. This chapter is astonishingly similar to the notorious fourth chapter of Die Wahlverwandtschaften, the chapter in which the affinities are first introduced. In both, we discover a small circle of highly refined and cultivated people involved in witty and extremely self-conscious conversation on the subject of the nature of love. In both conversations, a scientific theory about the nature of love is first advanced and then demonstrated or verified through its being applied to the actual experiences of those present. Goethe has the Captain reduce Charlotte, Eduard, Ottilie, and himself to A, B, C, and D, in order to simplify the terms of the chemical analogy. This formulaic and abstract picture of human affinities is of course highly dehumanizing and is introduced with a certain measure of
irony. Stendhal, too, it should be noted, claims to be describing love mathematically: "Imaginez une figure de géométrie assez compliquée, tracée avec du crayon blanc sur une grande ardoise: eh bien! je vais expliquer cette figure de géométrie . . ."(325) In "Le Rameau de Salzbourg" there is a great deal of amusing conversation about who is crystallizing whom. Goethe has the Captain promise to show the gathering some actual chemical experiments, and Stendhal has his lovers actually descend into the mines in order to appreciate in concrete terms how crystallisations occur and are made. What these experiments do, or will do, is show in concrete visual terms the real dynamics of the two processes. For, if anything, both the theory of the affinities and the theory of crystallisation convey a profoundly dynamic conception of love. Whether natural or cultural, love's affinities and crystallisations involve change and transformation. Just as affined individuals, like affined chemical elements, change and transform one another when united, so, similarly, the lover's crystallisation of the beloved, like the crystallisation of saline solutions around a branch, transforms both the object and the crystallizing agent. Goethe has the Captain say to his listeners:

One has to have these entities before one's eyes, and see how, although they appear to be lifeless, they are in fact perpetually ready to spring into activity; one has to watch sympathetically how they seek one another out, attract, seize, destroy, devour, consume one another, and then emerge again from this most intimate union in renewed, novel and unexpected shape.(56)

Stendhal's narrator describes to Madame Gherardi how a young officer has fallen in love with her:

L'effet que produit sur ce jeune homme la noblesse de vos traits italiens, de ces yeux tels qu'il n'en a jamais vus, est précisément semblable à celui que la cristallisation
The basic difference between the two processes is that whereas the changes wrought by the affinities are profoundly reciprocal—"All attraction is mutual," (212) claims Goethe—those made by the crystallisation process are essentially subjective, occurring in the mind and imagination of the lover. This scientific love conversation has medieval precedents: the debating of theoretical questions about the nature and modes of love in the *Arts d'aimer*, and the discussion of such theoretical topics as the pathology of love and the love potion in romance and poetry.

Both *De l'Amour* and *Die Wahlverwandtschaften* involve attempts to give fictional verification to these abstract theories of love. The whole of Goethe's fiction must be seen in the light, even if somewhat ironical, of the scientific discussion. But one also discovers, interpolated in Goethe's *Novelle*, an abbreviated *Novelle* called "The Wayward Young Neighbours" which gives an example of the violent and irresistible workings of love's affinities. An exact parallel can be found in the interpolated story "Ernestine Ou La Naissance de L'Amour" in *De l'Amour*, which fulfils the same function of demonstrating or verifying, in fictional terms, the elements of an abstract theory of love.  

How are we to explain the general failure to appreciate the experimental or technical nature of both Goethe's and Stendhal's descriptions of love? Some light can perhaps be shed on this question if we juxtapose these modern accounts with the typical medieval scientific
or pseudo-scientific accounts of love in terms of the love potion and
the malady of love. Here, too, critics have been reluctant to see the
technical dimensions to the metaphors. Witness the critical abhorrence
at the idea that the efficacy of the love potion can in any way be
limited, and the emphasis in accounts of the disease of love on its
fatal symptomology. The point is that not only are the critics reluctant
to acknowledge the role of human intervention in the process of love, but
the lovers are as well. The irresistible natural workings of the
affinities, and of the cristallisation process, like the deadly compul-
sion of the love potion and the insidious effect of the disease of love
are exploited by lovers in a similar way: to rationalize and excuse a
passionate love which is often—obviously so in both the Tristan story
and Die Wahlverwantschaften—destructive of the moral constitution of
marriage and of much else besides, including the lovers themselves.
Erotic martyrdom requires rationalization and justification. Just as
Tristan and Iseult invoke the accidental drinking of the love potion as
the root cause of their suffering, so, similarly, the lovers in Goethe's
fiction trace their woes to the chance workings of chemical affinities.
The brighter light is shed on the naturalistic side of the scientific
symbol—the side which can show the tragic inevitability of passion—
and the artificial, technical dimensions of the symbol, which can suggest
the opposite—that the lovers are not quite as innocent before passion
as they might care to believe—are left in relative darkness. So that,
in a curious way, these scientific symbols undercut, at the same time as
they illuminate, the tragic conception of passion.

Ultimately, however, above and beyond the descriptive, analytical,
and experimental aspects of Goethe's and Stendhal's powerful erotic
metaphors, one must appreciate their aesthetic value. If science is of limited value in understanding and controlling love it is of illimitable value in providing poetic signs of the ultimately irreducible, mysterious, and inexpressible nature of love.
Footnotes


4 *Journal*, p. 368.


9 It is worth noting that while Stendhal creates a fiction to verify his theory of love, he also, like his medieval predecessors, invokes traditional stories and anecdotes to serve the same purpose. The purely invented character of Goethe's text points us in the opposite direction, towards the modern era where much of the scientific speculation about love that traditionally was centred in the love-treatise has been taken up into the fabric of the novel. Proust's *À la recherche du temps perdu* is an obvious example.
Chapter VI

Stendhal and the Idea of a Comparative Science of Love

Indeterminacy has long been considered an essential feature of love. In Plato's Symposium, Socrates delineates a colourful picture of the uncertain nature of Love. From Diotima he had learned that Love is neither beautiful nor ugly, neither good nor bad. Lacking goodness and beauty, Love cannot be a god. But if Love is not a god, neither is he a mortal. Love is a daemon, a being intermediate between mortal men and the immortal gods. An account of the genealogy and the circumstances surrounding the birth of Love confirms his highly dubious nature.

Love was conceived at a feast of the gods, held to celebrate the birthday of Aphrodite. Plenty, drunk on nectar, had fallen into a heavy sleep. Poverty came begging about the doors. Considering her sorry state, Poverty plotted to conceive a child by Plenty. Love, the offspring of the conjunction, is therefore indebted to Aphrodite for his obsession with beauty and to Plenty and Poverty for his fortunes. Not only is Love always poor, hard, rough, unshod and homeless, possessing his mother's nature, but also he is brave and ambitious, having his father's designs upon beautiful and good things.

He is by nature neither mortal nor immortal, but alive and flourishing at one moment when he is in plenty, and dead at another moment in the same day, and again alive by reason of his father's nature. But that which is always flowing in is always flowing out, and so he is never in want and never in wealth.¹

In addition, Love, like the philosopher, is by his very nature caught between the two worlds of ignorance and wisdom. Once again, the birth of
Love provides an explanation: the resourcefulness and wisdom of his father, and the poverty and foolishness of his mother. In short, the lover as lover is possessed of, and defined by, a number of uncertainties that are intrinsic to the nature of Love itself.

The Platonic account of the scope of the uncertainties of love remained essentially definitive and exhaustive until the beginning of the nineteenth century when Stendhal published his treatise De l'Amour (1822). One of the elements of genius in Stendhal's multifaceted theory of love is his systematic description of another order of uncertainties centring upon the experience of love. Whereas the innovation of Plato was to pinpoint the intrinsic indeterminacy of love, that of Stendhal is to highlight the extrinsic uncertainties of love. A new comparative science should be established, claims Stendhal, which will take as its subject-matter the patterns which different kinds of love assume under the impress of different forms of government or national character, different climates, different temperaments, and the peculiarities of individual character. Stendhal draws an analogy between this new discipline and the science of comparative anatomy:

Or, comme en physiologie l'homme ne sait presque rien sur lui-même que par l'anatomie comparée, de même dans les passions, la vanité et plusieurs autres causes d'illusion font que nous ne pouvons être éclairés sur ce qui se passe dans nous que par les faiblesses que nous avons observées chez les autres.²

The broad implication or premise of this new science is that man never loves innocently: love is coloured and qualified by the distinctive characteristics of its spatial, temporal, and individual psychological locus. The subject-matter of Stendhal's new comparative inquiry is therefore not something fixed, unitary and constant, but something protean and inconstant.
This belief in the variability of love is beautifully registered and confirmed in the central informing metaphor of De l'Amour—the quintessentially Romantic description of love as cristallisation. The lover's idealization of the beloved finds an appropriate image in the accretion of beautiful crystals around a bare branch left in the salt mines of Salzburg. Just as the miners make these beautiful crystals, so, similarly, every lover fabricates or creates the qualities and structure of his love. The beauties, virtues, and perfections which the lover delights in attributing to the beloved often, therefore, though not always, bear a highly dubious relation to the real qualities of the beloved. In large part, the beauties of the beloved originate in the unique subjectivity of the lover; they are the expression of the distinctive erotic imagination or sensibility of the lover as this has been informed and coloured by particular social and political conditions.

Far from being grounded in mere idle curiosity or in a naively reductive passion for categorization, Stendhal's new comparative science finds its justification in the truly humanistic ends of happiness and self-knowledge. A comparative study of the modes, rituals, and sensibilities of love which flourish in diverse circumstances can serve to diminish the distortion inherent in any purely subjective perspective on love. It can also serve to inform ethical and aesthetic discriminations in matters of love. Stendhal's new discipline therefore possesses simultaneously both descriptive and prescriptive dimensions. Stendhal refines a colourful typology as well as a topology of love; but, clearly, only certain landscapes or civilizations are viewed as conducive to the free and fruitful growth of that delicate plant called love.
First, Stendhal surveys the love-life of a number of modern European countries. He begins by lamenting the rarity of grand passions in France. This fact is due, he claims, to the excessive vanity of the French: "Un jeune homme de Paris prend dans une maîtresse une sorte d'esclave, destinée surtout à lui donner des jouissances de vanité."(138) This obsession with the opinion of others militates against the expression of authentic desire. Stendhal concludes his portrait of love among the French with a definition: "L'homme passionné est comme lui et non comme un autre, source de tous les ridicules en France, et de plus il offense les autres, ce qui donne des ailes au ridicule."(145) Stendhal's next example could not offer more of a contrast to the example of France. In Italy, public opinion is the servant not the master of passionate love. There, true passion is not considered to be ridiculous but only natural. Stendhal catalogues some of the other features of Italian life that are conducive to true passion:

D'autres avantages de l'Italie, c'est le loisir profond sous un ciel admirable et qui porte à être sensible à la beauté sous toutes les formes. C'est une défiace extrême et pour­tant raisonnable qui augmente l'isolement et double le charme de l'intimité; c'est le manque de la lecture des romans et presque de toute lecture qui laisse encore plus à l'inspira­tion du moment; c'est la passion de la musique qui excite dans l'âme un mouvement si semblable à celui de l'amour.(147)

The love-life of England presents a dismal picture of typically proud husbands demanding excessive modesty and unoriginality in their wives: "C'est tout simple, la pudeur des femmes en Angleterre, c'est l'orgueil de leurs maris."(152) The love-life of Spain is painted in idyllic terms. The beautiful gardens of Andalusia form the centre of the picture.

Là vivent et reçoivent les charmantes Andalouses à la démarche si vive et si légère; une simple robe de soie noire garnie de franges de la même couleur, et laissant apercevoir un cou-de-pied charmant, un teint pâle, des
yeux où se peignent toutes les nuances les plus fugitives
des passions les plus tendres et les plus ardentes.(160-61)
The love-life of Germany is completely different again. Love "est regardé
par les Allemands comme une vertu, comme une émanation de la divinité,
comme quelque chose de mystique ... Il est profond et ressemble à
l'illuminisme."(164)

The only non-European modern country that Stendhal brings into his
comparative study is America. Although he never visited the United
States, Stendhal draws an incisive sketch of its love-life. Americans,
Stendhal claims, are an extremely unromantic people. He relates this
assertion to America's republican form of government. Tranquility and
security might be the fruits of free government, but not passion or
imagination: these are stifled by the rational and utilitarian habits of
mind which characterize such a body politic: "Il y a tant d'habitude de
raison aux États-Unis, que la cristallisation en a été rendue
impossible."(176)

Stendhal also garners comparative illuminations of love from a
number of historical sources. *De l'Amour* contains brief chapters on both
the courtly love-life of Provence and the refined manner of loving of
medieval Arabia. Stendhal describes how an appealing formality,
gallantry, gaiety, and grace characterized the former world, while great
generosity, nobility, and ardour defined the latter.

Yet a third source of illustrative examples for Stendhal's compara-
tive science of love is the realm of literature. The best example of
this specific type of comparison is found in the chapter in *De l'Amour*
on "Werther et don Juan." Here, we find an almost archetypal comparison
between two radically different erotic styles.
Like many other fruitful ideas, the idea of studying love comparatively did not spring full-grown from the mind of one isolated thinker. Stendhal is important because he synthesized ideas from a number of different sources. The immediate inspiration for Stendhal's idea of a comparative science of love can be discovered in certain intellectual movements of his own and of the previous age. Stendhal himself acknowledges his indebtedness to Cabanis' *Traité du physique et du moral de l'homme* (1802) for the theory of the six different temperaments. To Montesquieu's *L'Esprit des Lois* Stendhal is indebted for the theory of the decisive influence of different climates and environments on human affairs. Montesquieu's comparative science of government, which sought historical understanding through an appreciation of the interplay of diverse sociological factors or variables, finds a strong echo in what Stendhal terms "mon système de l'influence des gouvernements sur les passions." *(76-77)* It is the latter influence which points us in the direction of the truly decisive modern origin of Stendhal's science: the idea of historical and cultural relatively so essential to the thought of the Enlightenment and to the philosophy of the Romantics. In his first book *L'Histoire de la Peinture en Italie* (1817) Stendhal had revolutionized art criticism by viewing artists and works of art not in relation to absolute standards of beauty and accomplishment, but in relation to the flux of history. Essential to such a sociological perspective was an appreciation of how different cultural and climatic circumstances created radically different conceptions of beauty. This relativistic conception of beauty provides an associative link between Stendhal's theory of art and his comparative theory of love. The ideal of beauty celebrated by
lovers in one country may be very different from the ideal that is lauded by lovers in other parts of the world. The following passage, describing the delights of Naples, which is found in Stendhal's treatise on painting, contains the seeds of the theory that is later more fully elaborated in De l'Amour:

Dès qu'on s'ennuie au Forum, ou qu'il ne faut plus prendre son arquebuse pour s'aller promener, le seul principe d'activité qui reste, c'est l'amour. On a beau dire, le climat de Naples fait autrement sentir les finesse de cette passion que les brouillards de Middelbourg. Rubens, pour donner le sentiment du beau, a été obligé à un étalage d'appas qui en Italie ne plaît que comme singulier.  

Art, beauty, climate, and love are not independent categories, but are all interfused.  

Love, like the work of art, and the lover, like the artist, appear as the expressions of particular cultures. What the German critic Weigand wrote about Stendhal's view of art could equally well describe his view of love: "Stendhal was the first man who conceived of art as the flower of an entire culture and who pointed to the climate and the moral customs of society as the source of origin of artists." Love also is "the flower of an entire culture," profoundly shaped in its styles, conventions, and sensibility by the whole constitution or world-picture of a particular age.  

These cross-fertilizations go far in accounting for the genesis of Stendhal's idea of studying love comparatively. But is one justified in limiting one's quest for the origins of this fruitful theory purely to eighteenth century and Romantic intellectual backgrounds? There must surely exist older influences and formative factors. A closer look at the generical status of De l'Amour will perhaps provide some genetic clues. As early as 1803 Stendhal had expressed his desire to write,
among other works, one in verse called L'Art d'Aimer. To this Ovidian sounding title he appended these notes: "en d'autres termes l'art de séduire. Sujet délicieux. Il faut pour l'entreprendre, bien connaître les femmes. Une teinte de douce sensibilité. Histoire de l'art d'aimer. Histoire de l'amour au temps de la chevalerie." 5 In the pages of De l'Amour, Stendhal categorizes his work as a "traité philosophique,"(326) an "Essai sur l'Amour,"(331) a "discours sur les sentiments,"(13) as "L'histoire",(115) and as a "Physiologie de l'Amour." An immediate model—though hardly one that is strictly adhered to—for the form and methodology employed in De l'Amour was a rigorous philosophical treatise entitled Éléments d'idéologie by Destutt de Tracy, a work which was something of a sacred text to the young Stendhal. Early in De l'Amour, Stendhal acknowledges his debt by terming his own study "un livre d'idéologie":

Si l'idéologie est une description détaillée des idées et de toutes les parties qui peuvent les composer, le présent livre est une description détaillée et minutieuse de tous les sentiments qui composent la passion nommée l'amour.(13 n. 1)

The most frequently used title, however, is simply "traité". Treatise on love is clearly the best generical definition for the work, encompassing or subsuming all the other definitions, including Stendhal's first choice, L'Art d'Aimer.

In the first three chapters of the present study, a number of the important formal impulses—encyclopedic, plagiaristic, catalogic, classificatory—that are typically present in the love-treatise, have been pinpointed. One important consequence or implication of these generical features has not, however, been made sufficiently explicit: their tendency naturally to generate comparative illuminations of love.
In a fundamental sense, then, the seeds of Stendhal's colourful comparative science of love lie deep within the very nature and form of De l'Amour itself. Antecedents--however rudimentary and unsystematic--to Stendhal's science must therefore be present in love-treatises written many centuries before the nineteenth. It is fascinating to see how Stendhal traces his indebtedness to a tradition which contains some of the earliest love-treatises and, consequently, some of the earliest comparative illuminations of love.

"J'aimerais mieux être un Arabe du vᵉ siècle qu'un Français du xixe," writes Stendhal. In the second Book of De l'Amour, in the sections entitled "Des Nations Par Rapport À L'Amour," Stendhal, as I have already noted, devotes a chapter to the celebration of love in Arabia. Along with diverse anecdotes about the amorous practices of the Bedouin Arab--most of which information Stendhal received from his friend, the scholar Fauriel--Stendhal includes fragments, translated into French, from an Arabic treatise on love, the Diwân as-Sabâba (The Anthology of Ardent Love) written by Ibn Abî Ḥajala (1325-1375). The fragments which Stendhal borrows from this treatise consist of brief stories about lovers who have died for love. Two of these lovers belonged to the tribe of Banû 'Udhra, the members of which were famous for the tenderness of their loving and the frequency with which they died of the sickness of love. The point is that Stendhal is appropriating, for his own comparative ends, material from a medieval Arabic treatise on love which in itself is in significant part comparative in nature. As Giffen writes of the Diwân as-Sabâba:

The book begins with a long introduction filled with dicta and theories about love, its nature and causes, followed by
thirty chapters on the ahwāl [circumstances] of love and lovers. These contain stories about certain kinds of lovers: the caliphs and kings, those who fell in love at first sight, chaste lovers, martyrs of love, and men of his time sorely tried by love.¹

But to argue that the comparative science of love originates in, and is generated by the very form of such encyclopedic treatises, is to leave unanswered the question of the ultimate origins of this view of love. In other words, what can be said of the original impetus behind the choice of this intrinsically comparative genre as a medium of speculations about love? A plausible answer to this question can be discovered if we go back even further in the medieval Arabic tradition to the figure of Ibn Hazm (993-1064), who was the author of the monumental love-treatise The Dove's Neck-Ring.⁷ Ibn Hazm was, significantly, also the author of The Book of Religious and Philosophical Sects, the first comprehensive study of the diverse sects and schools which comprise the various religions of mankind. He is credited, therefore, with being the originator of the discipline of Comparative Religion. H. A. R. Gibb claims that

Surprising though it may seem that it is in Arabic literature that we find the first works on this subject, the reasons for it are not far to seek. The tolerance of the Arab conquerors had left in their midst large communities holding varied religious opinions, Jews, Christians, Zoroastrians, and even semi-pagans. Their beliefs attracted the attention of Muslim scholars at an early date and led first to a large controversial literature . . . and later on to a more scientific curiosity about them.⁸

The same milieu and a similar scholarly curiosity inspired Ibn Hazm and later Arabic writers to encyclopedic and comparative illuminations of the different kinds of love which flourished in the city, in courtly society, among the bedouins, and among various non-Islamic peoples.

But to invoke scholarly curiosity as the fount of the comparative science of love is perhaps to take rather too prosaic a view of the
matter. At least in the case of Ibn Hazm, comparative perspectives on love would appear to have been born equally of the pains of nostalgia. The whole of The Dove's Neck-Ring is built on a nostalgic comparison between the refined way of life which flourished in the old courts of the petty Spanish Arab kingdom, and the uncultivated mode of life which followed upon the destruction of this world by puritanical and militaristic rulers from North Africa. It is fascinating to see how a similar nostalgia informs Stendhal's comparative speculations. Italy, specifically Milan, where Stendhal spent his happiest years and where he fell hopelessly in love with Métilde Dembowski, is celebrated in De l'Amour as the locus of true passionate love, in contrast with France, whither Stendhal was unhappily exiled, "pays où la plante nommée amour a toujours peur du ridicule, est étoffée par les exigences de la passion nationale, la vanité, et n'arrive presque jamais à toute sa hauteur." Both Stendhal and Ibn Hazm invoke erotic touchstones—times and places when great sensibility and delicacy have characterized the relationships of love.

Situating Stendhal's comparative science in the wider context of the history of ideas and the study of genre places one in a better position to appreciate the unparalleled explicitness and coherence of his colourful Romantic account of the variability of love.
Footnotes


7. See Chapter One, above, for a detailed examination of the scientific basis of Ibn Hazm's treatise.

Chapter VII

Reflections on the Place of Love in the Technological World Picture

The language of Romantic love lingers on and leaves important traces in the love literature of the late nineteenth and our own centuries. Just as the medieval themes of the love potion and the malady of love persist in the discourse of Romantic love, so, similarly, the Romantic topoi of love's affinities and crystallisations recur in the discourse of Modern love. But this Romantic language is not our language. The terms affinity and crystallisation now sound slightly archaic: they suggest resources of poetic idealization and mystical communion that one does not readily associate with the modern sensibility.

In erotic science, as in so many areas, it is Baudelaire who strikes the authentically modern note. Only a few decades after the appearance of Goethe's and Stendhal's great dissections of love, Baudelaire provided his own analysis. In the grim lines of Fusées (composed 1855-62), the first part of his Journaux intimes, Baudelaire writes of how

l'amour ressemblait fort à une torture ou à une opération chirurgicale. . . . Quand même les deux amants seraient très épris et très pleins de désirs réciproques, l'un des deux sera toujours plus calme ou moins possédé que l'autre. Celui-là, ou celle-là, c'est l'opérateur, ou le bourreau; l'autre, c'est le sujet, la victime.

Entendez-vous ces soupirs, préludes d'une tragédie de déshonneur, ces gémissements, ces cris, ces râles? Qui ne les a profesés, qui ne les a irrésistiblement extorqués? Et que trouvez-vous de pire dans la question appliquée par de soigneux tortionnaires? Ces yeux de somnambule révulsés, ces membres dont les muscles jaillissent et se roidissent comme sous l'action d'une pile galvanique . . .

There is no need here to insist upon the perverse, sadistic, morbid, and satanic elements in this and similar passages in Fusées and in Mon Coeur.
mis à nu. The whole question of the influence of the Marquis de Sade and Edgar Allan Poe on Baudelaire has been brilliantly documented by Mario Praz. What is of interest for the present discussion is a dimension of intelligence in this particular definition of love: an aspect neglected by Baudelaire's commentators who see only colourfully perverse rhetoric and anguished private confession in his metaphors. It is also necessary to stress the point that Baudelaire is presenting a definition of love, however disagreeable, and not just a woeful picture of sexual activity. Sexual symbols are never innocent of emotional or metaphysical implications. In the medieval love-religion physical love was seen as religious communion; in Baudelaire, as torture: sex is indeed the mirror of a view of love.

Let us immediately note what dimension of science provides Baudelaire with a source of analogy for love. The mirror in which Baudelaire perceives the delineations of passion is clearly the artificial world of technique. Technique has twice loomed large in our analysis. But we have here neither the vital and essentially playful equation of love and technique—in particular, military—found in the Ovidian tradition, nor the imaginative and intellectual use of experimental technique discovered in the erotic science of Goethe and Stendhal. In Ovid we find a technique of love. In Goethe and Stendhal we find a poetry of technique. In Baudelaire, love is technique. Baudelaire can only register in despairing tones the depressing extent to which the technological has insidiously permeated the very heart of the erotic experience. The delicate balance between natural and artificial elements in the erotic theories of Goethe and Stendhal is destroyed in Baudelaire's science of love. How account for this except in terms of the mimetic principle which we have earlier
Baudelaire, the first great poet of the modern city, gives us an account of the character and place of love in the technological world picture.

What characterizes this world is precisely its unnaturalness. Technique has to a large extent eroded the natural not only in the external world but in human nature as well. Modern consciousness is governed by technical modes of thought and perception and shaped by the nervous rhythms, destructive energies, and mechanical repetitions inherent in the dynamism of our urban and technological world. Erotic experience cannot innocently transcend this omnipresent sensibility. A new kind of artifice moulds the rituals and gestures of modern love; an unnaturalness radically unlike the unnaturalness which characterized, for example, the rituals and gestures of love in the Middle-Ages or the Renaissance.

One crucial implication of the technological erotic metaphor is that the category of will as opposed to the categories or faculties of imagination or mind has primary status in modern love. This mirrors the priorities of technological culture in which sovereign status is granted to dynamic manifestations of the will and inferior status given to traditional, non-technical ways of perceiving, reflecting upon, and describing the universe. One consequence of the primacy of will in modern love is the disturbing element, explicit in the tone and imagery of Baudelaire's descriptions, of violence, manipulation, and exploitation: all of which clearly find their mimetic equivalent in the larger technical civilization.

Related to these prosaic implications is the discovery that a new experience of distance operates between the lover and the beloved. This
new kind of distance can be sharply distinguished from the distance that is celebrated by, for example, the Provençal lover-poets, in particular Jaufré Rudel, and by the lover-poets of the Arabic tradition. In these two traditions, the physical distance between the lover and the beloved is bridged by a simultaneous aesthetic and moral transfiguration of the loved one and an ennoblement of the lover. The distance is therefore rendered poetic, with all the feelings of nostalgia, despair, and longing which are attendant upon such a mood. The poetic celebration of distance discovered among the Arabic and Provençal lover-poets proved to be one of the most enduring motifs in the history of refined Eros. Although the language of erotic distance had obviously changed, and new nuances of sensibility been fashioned over the years separating the twelfth from the nineteenth centuries, Stendhal's notion of *cristallisation*, with its elements of aesthetic transmutation and moral idealization, still preserves a vital rhetoric of distance.

The modern literature of love also possesses a rhetoric of distance. This fact is totally obscured or ignored by writers who subscribe to the facile notion that since modern man has cut through all the unreal rhetoric of Romanticism he is now capable of completely unmediated intimacy and communication in love. Quite the opposite conclusion can be drawn. The hold over the imagination of the rhetoric of Romantic love may have diminished under the impact of a prosaic and utilitarian world-view, but, paradoxically, this new realism has been paralleled by an increasing consciousness of the existence of frightening emotional distances between lovers. If Baudelaire's bleak metaphors are authentic, then these new distances between lover and beloved are largely instrumental rather than imaginative, manipulative rather than contemplative.
Just as technical ways of responding to reality have sundered man's intimate ties with external nature, so similarly the technical and mechanistic have destroyed intimacy and harmonious reciprocity in the sphere of human nature and human relationships. In short, modern love replaces Romantic abstraction with a new technical kind of abstraction.

Yet another serious implication of the technological erotic metaphor is the increasing identity of the lover and the beloved, and, by extension, of the two sexes. Clearly, the processes of increasing abstraction and increasing dehumanization in erotic relationships involve an erosion of the contours of individuality and of sexual identity. Significantly, Baudelaire's lovers are neither sexually differentiated nor individually distinguished. Differences between the lovers are only marked by functional categories which can be filled at any one point in time by either of the two.³

That the example of Baudelaire is not hopelessly idiosyncratic is confirmed by a reading of The Waste Land of T. S. Eliot.⁴ Surprisingly little has been written about the profound complementarity of perception and tone that can be discovered in Baudelaire's and T. S. Eliot's versions of erotic life in a modern urban and technological setting. The dreary encounter between a typist and a clerk which is rendered in the section of The Waste Land entitled "The Fire Sermon" is strikingly similar to the encounter between Baudelaire's lovers.

The time is now propitious, as he guesses, The meal is ended, she is bored and tired, Endeavours to engage her in caresses Which still are unreproved, if undesired. Flushed and decided, he assaults at once; Exploring hands encounter no defense; His vanity requires no response, And makes a welcome of indifference.(235-42)
The technological dimensions of the experience, unified in this description by a mechanistic military metaphor, are reinforced by the metaphors that are discovered in two juxtaposed passages. After the departure of the clerk, the typist

... smooths her hair with automatic hand,
And puts a record on the gramophone. (255-56)

both of which actions further emphasize the link between man and machine. The whole episode is introduced by a brilliant passage that not only introduces the theme or motif of the dehumanization and mechanization of human nature, but also points to the peculiarly urban character of the erotic relationship. The profoundly intimate nature of the affinity between the rhythms of human activity and the rhythms of the city is made explicit:

At the violet hour, when the eyes and back
Turn upward from the desk, when the human engine waits
Like a taxi throbbing waiting. . .(215-217)

According to Eliot it is Tiresias "throbbing between two lives," the figure in whom the "two sexes meet," who perceives this scene: an immensely significant mythical comment on the virtual identification of the clerk and the typist. Neither of the two lovers is a clearly delineated individual (the impersonal occupational designations "clerk" and "typist" reinforce the point); both are identical in their indifference and boredom. Here, as in Baudelaire's description, the apparent presence of two lovers is really an absence; one becomes aware of a virtually total deprivation of distinctly human emotions and attributes.

These uncompromisingly stark lines of Baudelaire and T. S. Eliot have been deliberately chosen to provide dramatic evidence of a marked
evolution in modern erotic science. Mirroring the general historical development of nineteenth and twentieth century science as a whole, erotic science has become increasingly denaturalized and abstract, invoking, less and less, natural, whether organic or inanimate, images, and, more and more, experimental, technical, and mathematical images. This last-mentioned order of modern scientific metaphors—the mathematical—requires singling out as a special consequence of the technical. In modern science the increasing reliance of the scientist on mathematical and statistical descriptions of nature is primarily the consequence of the almost infinite extension of the frontiers of physical knowledge by technical invention. The elusive microphenomena of quantum physics, which remain notoriously resistant to objective physical description, but are capable of predictive statistical description, are a case in point. Similarly, in modern erotic science the mathematics of love manifests itself concurrently with, or as a consequence of, the growing dominion of the technical. In love, the mathematical is but an extreme formalization or measurement of the distances laid bare by the technical or experimental alienation of the erotic analyst from natural love. Increasingly, the human realities of love and lovers, like the realities of nature, are being dissolved into the purely abstract formulations of mathematics. Again, just as was the case with the technological vision of love, the mathematical vision of love was prefigured in the erotic sciences of Goethe and Stendhal. Note has already been made of Stendhal's use of the word mathematical to describe his way of analyzing love, as well as his invocation of a geometrical image to delimit love's relative complexities. Goethe's reduction of his lovers to the elements A, B, C, and D in a chemical experiment is a
motif of the same order. The simultaneous presence of natural philosophical, experimental, technical, and mathematical accounts of love in Goethe and Stendhal encapsulates some of the crucial evolutionary stages of modern erotic science.

It should be noted that this evolution in the modern erotic tradition toward increasing abstraction, unnaturalness, and dehumanization is broadly paralleled by analogous developments in the modern literary and visual arts. Abstract, Symbolist, and non-objective art all involve the progressive dissolving of the concretely human and naturalistic. In *The Dehumanization of Art* Ortega y Gasset crystallizes his thoughts on modern poetry, and in particular the work of the French Symbolist poet Mallarmé, in a striking line: "Poetry has become the higher algebra of metaphors." The modern language of love has also transcended the distinctly human and natural and dissolved itself into abstract scientific symbols.

Further to substantiate this argument, I will briefly examine several of the dominant modern erotic motifs.

**Electricity**

What is of interest in the life of this particular erotic metaphor is the dramatic shift, which begins to occur in the latter part of the nineteenth century, from the natural electrical analogy to the technological electrical analogy. In Romantic natural philosophy the electrical analogy for love has vital significance. For example Goethe, in speaking of astonishing unconscious communications which occur between lovers, invokes an electrical explanation: "We have all something of electrical and magnetic forces within us, and we put forth, like the magnet itself, an attractive or repulsive power, accordingly as we come
in contact with something similar or dissimilar." Shelley, as Graba has convincingly shown, also vitally links electricity and love. In our own century, Ortega has written of the "magic electricity" of love.

As early as the middle of the nineteenth century a new kind of electrical analogy for love begins to surface. In the long passage from Baudelaire's *Fusées* quoted above, we find the grim image "ces membres dont les muscles jaillissent et se roidissent comme sous l'action d'une pile galvanique." Here, the obvious lack of natural vitality finds an objective correlative in the new electrical technology. In Tolstoi's *Kreutzer Sonata*, a similarly dehumanizing picture of erotic desire is to be found. The jealous narrator-husband, an obvious mouthpiece for the moralistic older Tolstoi, crystallizes his hatred of Romantic passion by looking into the mirror of the artificial world of technology—technology with its homogenizing, automatizing, and depersonalizing tendencies:

I saw that her eyes gleamed with a peculiar brightness from the moment she first saw him, and that owing, perhaps, to my jealousy an electric current seemed to connect them and establish uniformity in their looks and smiles; so that when she would blush he would blush, and as soon as she smiled he smiled also.

It is curious to see how Proust similarly invokes electrical imagery in an erotic context. Marcel's love for women does not originate in their human qualities or in their sexual attractiveness; rather, it is governed by a strangely autonomous force or power, a force analogous to electricity in its potency:

On aurait dit qu'une vertu n'ayant aucun rapport avec elles leur avait été accessoirement adjointe par la nature, et que cette vertu, ce pouvoir similélectrique avait pour effet sur moi d'exciter mon amour, c'est-à-dire de diriger toutes mes actions et de causer toutes mes souffrances. Mais de cela la beauté, ou l'intelligence, ou la bonté de
D. H. Lawrence, undoubtedly influenced by the Russian and Italian Futurists' celebration of technology and science, created a modern Romantic erotic language out of electrical technology. Joseph Warren Beach has noted the extensive use which Lawrence makes of "electrical phenomena: positive and negative, polarization, incandescent wires, voltage, interference, short circuits."\(^{10}\) This passage which Beach quotes from *Women in Love* is typical:

> It was a dark flood of electric passion she released from him, drew into herself. She had established a rich new circuit, a new current of passional electric energy, between the two of them, released from the darkest poles of the body and established in perfect circuit. It was a dark fire of electricity that rushed from him to her, and flooded them both with rich peace, satisfaction.\(^{11}\)

Intended as images of vitalistic communication, Lawrence's electrical analogies often function in the opposite way—as signs of a love which is abstract and dehumanized.

**Psychoanalysis**

One might have thought that, at least by the nineteenth century, if not before, the centuries-old metaphor of love as a disease would have become moribund, that it would have virtually disappeared from serious love literature. This appears not to have been the case. The analogy between love and disease even in its traditional guises, shows no signs of dying out; and in distinctly modern variations on the theme, has even
taken on a certain new life. The contributions of three modern specialists in this area must be briefly noted. Once again it is Baudelaire who strikes the modern note. In his *Fusées*, as we have seen, Baudelaire likens love to an "opération chirurgicale" with the lovers alternating in the roles of operating surgeon and patient. Whereas traditionally, for example in medieval literature, the emphasis in accounts of the love-disease tended to be on its fatal symptomology, in modern accounts of the disease emphasis is centred upon technique and clinical control. Here we have a grim variation on the traditional trope of the beloved as the only person, or physician, who can cure a lover's lovesickness. Interestingly enough, this Baudelairean theme recurs in Proust's great novel. As would be expected, the whole theme becomes even more solipsistic in Proust. In Proust, the lover himself is his own doctor: "ceux qui souffrent par l'amour sont, comme on dit de certains malades, leur propre médecin." (I 631) Proust likens the victim of love to a doctor experimenting on himself: "Certes, nous sommes obligés de revivre notre souffrance particulière avec le courage du médecin qui recommence sur lui-même la dangereuse piqûre." (III 905) We also find the extraordinary idea of Swann "Considérant son mal avec autant de sagacité que s'il se l'était inoculé pour en faire l'étude." (I 300) In Proust a curious reversal takes place in the love-disease metaphor. Traditionally, it is love which is said to resemble disease. Proust, of course, has endless refinements on this ancient theme. But occasionally he will reverse the terms of the traditional trope and write of how disease resembles love. This idea points us in the direction of that most notorious of modern variations on the theme of the love-disease—that which is found in the science or pseudo-science of psychoanalysis. For
it is in the specialized conceptual world of Freudian psychoanalysis that the Proustian reversal of the terms of the love-disease equation really comes into its own. For Freud, neurotic diseases inevitably arise as a result of the necessary constraints exacted upon Eros by civilization. But it is not Dr. Freud who concerns us here, but Dr. Krokowski, the fictional Freudian figure or caricature in Thomas Mann's *Der Zauberberg*. Mann is to Freud what Ovid was to the Greek physicians who wrote about the disease of love in clinical terms. For what one finds in *Der Zauberberg* is a veritable modern mock-science of love. At the International Sanatorium Berghof, the locus of the main action in Mann's novel, an important diversion for the patients is a "series of popular-scientific lectures, under the general title: 'Love as a force contributory to disease.'" For the innocent and hypochondriacal young engineer-hero Hans Castorp, attendance at these lectures is an eye-opening experience: "It was a bit odd, to be sure, listening to a lecture on such a theme, when previously Hans Castorp's courses had dealt only with such matters as geared transmission in shipbuilding." How did the lecturer tackle such a taboo subject as love? "Dr. Krokowski did it by adopting a mingled terminology, partly poetic and partly erudite; ruthlessly scientific; Yet with a vibrating singsong delivery . . ." Dr. Krokowski's thesis is simple: bourgeois constraints over "love" are futile because "The love thus suppressed was not dead; it lived, it laboured after fulfilment in the darkest and secretest depths of the being. It would break through the ban of chastity, it would emerge—if in a form so altered as to be unrecognizable. But what then was this form, this mask, in which suppressed, unchartered love would reappear?" The answer to this question startles the audience:
"In the form of illness. Symptoms of disease are nothing but a disguised manifestation of the power of love; and all disease is only love transformed." (128) The whole production is of course a parody of the psychoanalytic description of the insidious nature of the sexual drive. It is interesting to note that here too, just as in Proust, the disease of love is hardly fatal: the bourgeois analyst inevitably triumphs over the temptation of the Liebestod.

Geometry

In his role of the dispassionate analyst of the passion of love, Stendhal likens himself to a mathematician intent on explaining "une figure de géométrie assez compliquée, tracée avec du crayon blanc sur une grande ardoise." Like Ovid and numerous medieval pedagogues, Stendhal claims expertise in the art or science of love. His use of mathematical language and images registers a passion for clarity and predictability in a subject notoriously lacking in these qualities. In a modern variation on this theme, Don Juan, oder Die Liebe zur Geometrie, a play by Max Frisch, love and geometry are brought together precisely in order to show that love and geometry have nothing whatever to do with one another. Don Juan is depicted as a man who loves one thing more than women—the clear, pure, sober, transparent world of geometry. In Frisch's binary dramatic analysis, woman and love belong to a world which is anything but geometrical. Truly to love a woman, Don Juan would have to do what he cannot do—give up the certainties of geometry for the uncertainties of love. Frisch's play is not completely frivolous. At the heart of the work is the delineation of a moral ambiguity. In a Postscript to the play Frisch writes:
If he lived in our day, Don Juan (as I see him) would probably concern himself with atomic physics: in search of ultimate truth. And the conflict with women, that is with the unconditional will to maintain life, would remain the same. As an atomic physicist too he would sooner or later be faced with the choice: death or capitulation—capitulation of that masculine spirit which obviously, if it remains autocratic, is going to blow up Creation as soon as it possesses the technical ability to do so.\footnote{14}

The binary structure of the argument is clear: masculine spirit, geometry, atomic physics, technology, death, and destruction are equated; the feminine spirit is equated with the will to live. The whole argument, even treated humorously, seems too facile. Are not women equally capable of geometry? Does not an idea such as the indeterminacy principle seriously compromise the cliché that the modern atomic physicist is "in search of ultimate truth"? Frisch's whole argument is flawed by a too schematic separation of love and science—in particular, geometry. After all, as Stendhal has taught us, even love has its logic and a certain patterned coherence.

An example of just how illuminating a geometrical approach to love can be is discovered in the work of René Girard,\footnote{15} who is a kind of erotic disciple of Stendhal. Girard's study of Romantic desire centres on the geometrical figure of the triangle. Romantic desire, claims Girard, is nearly always mediated by a third person or a fictional ideal. One loves, in Shakespeare's words, "by another's eyes."\footnote{16} Girard is quick to point out that "The triangle is no Gestalt. The real structures are intersubjective. They cannot be localized anywhere; the triangle has no reality whatever; it is a systematic metaphor, systematically pursued."\footnote{17} However, such models can "allude to the mystery, transparent yet opaque, of human relations."\footnote{18} Girard does not make the connection, but surely it is no accident that triangular desire, although
a perennial theme, reaches its most intense and abstract manifestations in the literature of the nineteenth and of our own century—in works by writers such as Stendhal, Dostoyevsky and Proust—precisely in the age when man's relationships with nature have become increasingly mediated and abstract. There is therefore nothing innocent about the choice of the triangle as an erotic symbol.

Quantum Mechanics

Roger Shattuck in a book on Proust, and Olga Bernal in a study of the novels of Alain Robbe-Grillet have both argued the analogical relevance to their respective subjects' works, of Werner Heisenberg's famous indeterminacy principle. Since this principle was not formulated until 1927, the exact year in which Proust's Le Temps retrouvé, the final volume of A la recherche du temps perdu, was published, its application to his work is necessarily retrospective. We have here an example of a great creative writer prefiguring and anticipating an important intellectual and scientific principle.

Briefly, Heisenberg's principle, one of the fundamental principles of modern quantum mechanics, gives precise mathematical expression to the limitations in accuracy which plague the physicist's observations and predictions of the behaviour of microphenomena. Not only do certain microphenomena behave in a not fully predictable fashion, but also the very attempt to measure their behaviour modifies that behaviour. According to Shattuck and Bernal, this principle illuminates the profound epistemological uncertainty which so obviously qualifies the human relationships found in novels such as Proust's masterpiece and Robbe-Grillet's La Jalousie. Although neither critic isolates the analogy
in terms of its bearing a particular relevance to the depiction of love in these novels, this would seem to be a potentially fruitful undertaking.

The uncertainty relations of physics imply that the scientist's relation to nature, far from being direct, is a profoundly mediated one. It is not nature in itself, but man's uncertain knowledge of nature with which the modern physicist is forced to work. Taking a broad imaginative leap, one can see Proustian love in terms of a kind of equivalent poetic language of uncertainty. In Proust, two complementary uncertainties are always insisted upon: the uncertain nature and behaviour of the beloved, and the uncertain, deceptive, and distorting perceptions of the lover.

Contemplating his love for Gilberte, the narrator concludes:

Devant les pensées, les actions d'une femme que nous aimons, nous sommes aussi désorientés que le pouvaient être devant les phénomènes de la nature, les premiers physiciens (avant que la science fût constituée et eût mis un peu de lumière dans l'inconnu), ou pis encore, comme un être pour l'esprit de qui le principe de causalité existerait à peine, un être qui ne serait pas capable d'établir un lien entre un phénomène et un autre et devant qui le spectacle du monde serait incertain comme un rêve. (I 586)

But whereas in physics such epistemological uncertainty is a matter for despair, in love it is both a reason for despair and a reason for love itself. For Proust, it is precisely the uncertainty and mystery of the woman that provokes and defines love. Albertine's departure for Touraine provokes these reflections in the narrator:

... je me représentai Albertine commençant une vie qu'elle avait voulue séparée de moi, peut-être pour longtemps, peut-être pour toujours, et où elle réaliserait cet inconnu qui autrefois m'avait si souvent troublé, alors que pourtant j'avais le bonheur de posséder, de caresser ce qui en était le dehors, ce doux visage impénétrable et capté. C'était cet inconnu qui faisait le fond de mon amour. (III 431-32)

Proust is categorical in his definition of Romantic passion, writing of the time "quand nous aimons, c'est-à-dire quand l'existence d'une autre
personne nous semble mystérieuse."(III 551) Love is made up of "incertitudes" that are "délicieuses".

This Proustian theme is strongly echoed in a number of works on love written in our own time. The most subtle of these texts is undoubtedly Alain Robbe-Grillet's La Jalousie (first published in 1957). In this novel the traditional love triangle is reduced to the solipsistic consciousness of a jealous husband. The reality of a possible adultery is thoroughly diffused into the uncertain, distorting perceptions of the narrator. It is curious to see how a similar tormenting epistemological uncertainty centres on the erotic relationships in some of Harold Pinter's plays, notably The Collection and The Lover.
Footnotes


3. The logical extension or implication of this instrumental view is the kind of mechanical promiscuity or undifferentiated eroticism which is so tellingly delineated by Proust when he writes of women as being "comme des instruments interchangables d'un plaisir toujours identique." *À la recherche du temps perdu*, édition de Pierre Claroc et André Ferré (Paris: Librairie Gallimard, 1954), II:157. Subsequent quotations from this edition will be documented by volume and page numbers in parentheses.


14 Don Juan or The Love of Geometry in Four Plays, by Max Frisch

15 Deceit, Desire, and the Novel: Self and Other in Literary
Structure, trans. Yvonne Freccero (1966; rpt. John Hopkins Univ. Press,
1976).

16 A Midsummer Night's Dream, ed. Madeleine Doran (Baltimore:

17 Girard, p. 2.

18 Girard, p. 3.


20 Alain Robbe-Grillet: le roman de l'absence (Paris: Gallimard,

21 See Werner Heisenberg's The Physicist's Conception of Nature,
Conclusion

What, finally, is one to make of this strange science—the science of love? What, exactly, is its epistemological status? Throughout this study, a number of definitional terms have been, rather hesitantly, invoked. Groping towards a precise categorization of erotic science, I have variously defined its discourse as scientific, pseudo-scientific, poetic, metaphoric, analogical. However, none of these categories seems to do full justice to the peculiar character of this discourse. On reflection, perhaps the happiest way of categorizing erotic science would be in terms of the theory of fictions. Here, I take my cue from the work of Hans Vaihinger who wrote at length on the importance of fictions to culture.¹ In Vaihinger's view, fiction-making—that is, the construction of non-verifiable but useful "as if" propositions—is indispensable to morality, theology, metaphysics, politics, and science. By making simplified sense of extremely complicated realities, fictions can help man to live in this world. Vaihinger gives as examples of useful fictions the Platonic myths, the scientific ideas of the atom and the biological vital force, and the idea of an original social contract. The fictions of erotic science, it can be argued, possess this unverifiable, yet, nevertheless, extremely useful status. The grand medieval themes of the love potion and the malady of love, and the Romantic accounts of love's crystallisations and affinities are pure inventions, but inventions of deep fascination and consequence. After all, nothing can be more serious than fiction. One important function of these fictions has been to make sense of the real sufferings caused by love.
Significantly, then, the original Greek love-science was medical in character. The Greek poets' and physicians' description of eros in terms of madness or disease somehow made understandable its terrifyingly complex and disruptive manifestations. Viewed through the grid of medical science, love acquires aetiological and symptomatological comprehensibility. Similarly, the love potion and the Romantic descriptions of the affinities and crystallisations of love provide explanatory fictions of the genesis, transformations and conclusions of love. Another important function of such fictions has been to express and celebrate the magic compulsion exercised by love. A third useful function of love-science has been its provision, in the form of the love-treatise, of elaborate codifications of love.

But the fictions of love-science hold a fascination beyond their furnishing of colourful and useful explanations or codifications of the notoriously indeterminate phenomenon of love; these fictions are compelling because they have shaped and continue to shape the erotic imagination and sensibility. The experience of love is far from innocent before the discourse of love.
Footnotes

Selected Bibliography


