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Crazy in Love

Concepts of Morbid Love in Western Medicine from 1951 to the Present.

A Masters Thesis Presented in Partial Fulfilment of the Requirement for the Master of Arts in History at Massey University

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Introduction
Jacques Ferrand’s seventeenth-century work, *A Treatise on Lovesickness*, begins with two questions: ‘Is love a state of sickness? And if so, must it then be cured?’¹

Medicine, and its subspecialty, psychiatry, have pathologised certain manifestations of emotions, transforming them into diseases. The obvious modern example is the characterisation of extreme sadness as depression, but elation (as mania), fear (as the various anxiety disorders), and anger (as intermittent explosive disorder) are also pathologised. A form of morbid love, under a variety of names, most commonly lovesickness,² was also commonly viewed in Western medicine as a disease from the fourth century AD until the nineteenth century. But lovesickness’ status as a disease, appeared to decline in that century, and disappear as a diagnosis in the twentieth century. Morbid love does not appear to feature in modern psychiatric classification systems such as DSM-IVR and ICD-10.

This thesis will examine the questions:

1. Were there disease concepts for morbid love in the second half of the twentieth century? And if so, are these the remnants of lovesickness which can be linked historically to the original disease concept, does the same concept re-emerge under a new diagnostic name, or are these novel re-formulations of the concept of morbid love?

The methodology used to address this question was shaped by the background history: the scientific history of love, a more general history of love, the history of disease, and the history of lovesickness. In particular, the methodological weaknesses of the general history of love led to an attempt to introduce into this study a greater degree of empiricism. This led to a second question:

2. In researching question one; can we improve on routine historical methodology with greater emphasis on empirical, quantitative data?

To do this the thesis used analytical techniques from evidence-based medicine, and borrows its structure of presentation with sections of Introduction, Methodology, Results, and Discussion.

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²In this study lovesickness will be used to refer to the historical concept of pathological love which had its origins in the ancient world and can be traced historically, if by different names, as it gradually changed and evolved over time. Morbid love will be used as a broader term to refer to any conceptualisation of love as a disease. This distinction is useful even though increasingly blurred from the Renaissance on.
Background
THE HISTORY OF SCIENTIFIC THOUGHT ON EMOTIONS AND LOVE

The scientific community has struggled with the question: What is love? In contemporary scientific thought, love is most commonly viewed as an emotion, so the history of scientific thought on love takes place in the context of the history of scientific thought on emotions.

Scientific History of Emotions

Western traditions of thought about emotions began with the ancient Greeks and in particular, Aristotle (384-322BC). His major insight was that emotions were connected with action, and that they derive from what we believe; ideas that were taken up by the Stoics. Then in seventeenth century Netherlands, René Descartes had the idea that emotions are generated in the brain in response to events in order to elicit behaviours.

The emotions became the subject of more intense scientific interest in the late nineteenth century and early twentieth century. There are four major traditions of scientific thought on emotions, each of which is closely associated with a major scientific thinker: Charles Darwin, William James, Walter Cannon, and Sigmund Freud.

Charles Darwin and the Evolutionary Tradition

Darwin is most famous for his book, *On the Origin of Species* published in 1859, which explained anatomical structures in terms of evolutionary adaptation to the environment: but it is his *The Expression of the Emotions in Man and Animals* published in 1872 that was the landmark in the scientific study of emotions. In this book he refined Descartes’ model by proposing that emotions were originally evolutionary adaptations. Darwin did not concentrate on subjective feelings, but rather behaviour and facial expressions in animals, and in humans from different cultures. He noted the continuity between animals and humans -- for example, the snarl of an animal and the sneer of a human. But Darwin felt that human expressions were often vestigial, that is that they had lost their evolutionary purpose.

Darwin’s ideas about the biological basis of emotions and his methods of researching them have proved highly influential. His emphasis on studying behaviour was taken up by the behaviourists who dominated psychological research in the early part of the twentieth century up to the nineteen sixties.

William James and the Importance of the Body

Then, in 1884 the psychologist William James published an article looking at emotions in a different way. In this he attacked the common sense idea of the

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Interestingly, the latter three were physicians, and Charles Darwin also had some medical training.


sequence of events leading to an emotion -- the perception of a situation leads to an emotional response, which in turn lead to a bodily response (for example, a man sees a thunder storm approaching, experiences the emotion anxiety, and his heart starts to beat faster). Instead he postulated that the perception leads to bodily changes, which we interpret as an emotional state (the man sees the storm, his heart beat faster, and he interprets this as anxiety). This theory he applied to the ‘coarser’ emotions including grief, fear, rage, and love. A Danish psychologist, Carl Lange, proposed a similar theory around the same time, and therefore this is often known as the James-Lange theory of emotion. James’ theory, and the debate over its validity dominated the thinking about emotions in the United States in the early part of the twentieth century, and interest in the link between bodily sensations and emotions remained strong in the scientific community throughout the twentieth century.

**Walter B. Cannon and the Neuroscience Tradition**

Walter B. Cannon in his book *Bodily Changes in Pain, Hunger, Fear and Rage*, published in 1915, and a revised edition published in 1929, offered evidence against James’ theory. As an alternative he postulated that perception led to changes in a largely unconscious brain structure – the thalamus – that in turn led to both conscious emotional changes in the cortex and visceral body changes. Cannon was also the originator of the influential ‘fight or flight’ hypothesis -- that the visceral changes in the body associated with emotional excitement were homeostatic adjustments in preparation for action in most cases fighting or fleeing. Extending this work, in 1949 Walter Hess received a Nobel prize for demonstrating that emotions could be generated in cats via electrodes placed into the hypothalamus.

The idea that a structure in the brain was central to emotions was further developed in 1937 when J.W. Papez published an influential, if speculative paper in which he hypothesised that certain neural pathways, chiefly in the temporal lobe, mediated emotional experience.

**Sigmund Freud and the Psychological Approach**

In 1895 Sigmund Freud, along with his colleague Josef Breuer published *Studies on Hysteria*, laying out a new theory of the origins of mental illness and the foundation for a theory of emotion (Freud never developed a theory of emotion as such).

Freud’s ideas about emotions (or affects as he routinely referred to them) were based on his theory of drives. Freud postulated internal biological drives which had an external aim (discharge or pleasure) and object (either a person or thing); and that these drives were experienced as emotion. He was particularly interested in depression and anxiety (the latter viewed at various times as either the cause or result of the unconscious psychological defence mechanism of repression). Freud’s thinking raised questions about the degree to which emotions or the causes of emotions could be unconscious, and whether emotions could be conceptualised in non-biological ways. Like the ideas of James before him, as much effort went into refuting Freud’s

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ideas as expanding on them -- the behavioural models of emotion in particular can be seen as a scientific reaction against Freud. 12

**From the Nineteen Sixties onwards**
Research into emotion increased rapidly from the nineteen sixties on. Robert Plutchick revived interest in emotion as an evolutionary concept; pure behavioural models of emotion were challenged by the rise of cognitive psychology, and in particular the concept of ‘appraisal’ (the idea that any emotion is based on evaluating the event); while Sylvan S. Tomkins and Carroll E. Izard worked on autonomic physiology, facial expressions and brain processes. 13 Improving technology in the latter part of the twentieth century allowed good structural imaging of the brain and even dynamic real-time imaging of brain functioning, leading to research linking brain structure to emotions with attention particularly on the amygdala’s central importance. 14 In parallel to this was an increasing interest in the importance of neurochemicals. 15 Psychoanalysts continued to think about emotion, with significant contributions coming from Charles Spezzano who published *Affect in Psychoanalysis* in 1993, and Joseph Jones who published *Affects as Process* in 1995. 16

Sociologists began to undertake the systematic study of emotions in the nineteen seventies; 17 particularly influential work being done by Erving Goffman 18 and Arlie Hochschild. 19 The major change in viewpoint brought by sociologists was the idea that emotions were not primarily an internal matter to an individual, but rather part of and shaped by social interaction. Or to put it another way; the non-specific emotional arousal was biologically programmed, but the understanding and experiencing of the emotion was socially and culturally programmed. 20 This sociological approach to emotions is obviously much more interesting to historians than a purely biological or psychological one, as it allows the possibility of change over time, which probably explains in part the prominence of sociologists in the study of emotional history.

Similarly, anthropological interest in emotions is relatively new. C.A. Lutz was possibly the first anthropologist to enter into the field specifically to study emotions. 21 One of the basic debates in emotional anthropology is between the universalists who believe that fundamental emotions occur in all humans, and the relativists who believe emotions are specific to the cultures in which they occur. While this debate is not

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resolved, there is a consensus that different societies emphasise different emotions.²²

Scientific History of Love

Not surprisingly, given its scientific categorisation as an emotion, the scientific history of love parallels to a large extent that of the emotions. Once again, scientific thinking about love dates back to the ancient Greeks. Indeed, one of their greatest philosophers, Plato, developed a theory of love. He believed lovers were incomplete halves of a single puzzle, searching for each other to become whole. He was saying in effect, that each person had an ideal love waiting somewhere to be found.²³

While romantic love was an ongoing object of philosophical speculation,²⁴ it seems to have been the focus of scientific interest only intermittently until the twentieth century. In 1822 the writer Marie Henri Beyle Stendhal published De l’Amour, which named seven stages of love and emphasised the perceptual distortion involved.²⁵ Darwin noted that courtship behaviour of animals mirrored that of humans in love. In 1886, Dr Richard von Krafft-Ebing identified five different types of love: true love, sentimental love, platonic love, friendship, and sensual love.²⁶

Sigmund Freud had less interest in love than in sex. ‘I do not think,’ Freud once wrote to Eric Jung, ‘that our psychoanalytic flag ought to be raised over the territory of normal love.’²⁷ But Freud did have things to say about love. His was the first grand unitary theory of love²⁸ since Plato.²⁹ He created this unity in part by greatly expanding the conception of sex until it absorbed the concept of love.³⁰ Freud’s sexlove is shaped by individuals’ relationships in very early life with their caregivers and other family members. Love becomes the conscious mental manifestation of unconscious sex drives directed towards a ‘love object’.³¹,³² Romantic love was viewed by Freud (and later psychoanalytical theorists) as primarily reflecting a reawakening of early narcissistic fantasies.³³

²⁸Attempting to explain companionate love, romantic love and other types of love as one concept.
³¹There is no readily available definition of love object, even though this is a frequently used term in psychodynamic literature. In essence it is ‘the object’ which an unconscious sex drive (sex here being the expanded Freudian concept which includes love) is directed at. In the context of this thesis this means a person, though in psychodynamic theory this is by no means always the case.
Love continued to be the poor second cousin to sex in the writing of the psychoanalytical and psychodynamic thinkers who followed Freud, but certain theorists such as Theodore Reik, Eric Fromm, Abraham Maslow, Melanie Klein, Karl Meninger, Erik Erikson, and P. Solomon continued to generate theories of love.

Although scientific research into love was conducted during the nineteen forties (for example by L. Gross in 1944), these initial efforts were followed by nearly a 20 year period in which there was virtually nothing published. Kirsten in 1973 found that love was not mentioned in the 23 volumes of the Annual Review of Psychology that he surveyed. A politically charged debate in the United States over the funding a love research probably increased interest in the area and by the mid-nineteen seventies the general scientific community began to take an interest in love, and in particular romantic love.

An evolutionary model of love became particularly popular, with the idea that romantic love is a useful adaptation for raising young. Behaviourist and cognitive approaches were put forward. In 1986 Robert J. Sternberg, in an approach loosely based on cognitive psychology, proposed that different forms of love involved

Karl Meninger, Love Against Hate, New York: Harcourt and Brace, 1942.
different combinations of three components: intimacy, passion, and commitment. Some of these combinations, ‘fatuous love’ for example, while not portrayed as pathological, seem at the very least unpleasant and dysfunctional. From these ideas Sternberg developed a typology. The publication of the volume, *The Psychology of Love* marked the maturation of the psychological study of love into a recognized field. Another influential classification system was developed by the sociologist John A. Lee. In the tradition of William James there have also been physiological explanations of love, and investigations of the neurochemical and neuroanatomical basis for romantic love.

A slightly different approach to a theory of love has been developed from Bowlby's attachment theory. According to this theory, infants develop emotional bonds towards their caregiver as evolutionary adaptations that provide security in the face of temporary separations. In 1987 C. Hazan and P. Shaver proposed that in the interests of biological efficiency, romantic love is modelled on this infant attachment and love towards the parent.

**Perspectives from Sociology and Anthropology**

Sociologists have long taken a theoretical interest in romantic love, or at least in how it relates to marriage and the family. They have traditionally viewed the emphasis on romantic love as an adaptation of Western culture to the industrial revolution. Others have theorised that romantic love is a relatively new phenomenon relating to

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62 Also influenced in part by the ideas of Darwin and Freud.
63 An idea we will see again in comparing romantic love with obsessive-compulsive disorder.
65 And so are viewing a love more as a relationship or bond, rather than an emotion.
the development of the concept of self, which emerged over the last two hundred years, while the sociologist Theodore D. Kemper postulated love was the product of changes in power and status between individuals.

Sociologists have also moved from theory to research. Particularly prominent in this field was Jacqueline Sarsby. In one study she showed that the working class women in the United Kingdom may use romantic ideas as a form of psychological defence mechanism in their difficult married lives. In another piece of research, carried out in England in the nineteen seventies, she analysed what the fiction in women’s magazines was saying about the nature of love, and compared this to the readers’ actual attitudes to love. This study appeared to show that adolescents’ views about love could be predicted by class and gender, but not by the type of romantic stories they were reading.

Much of the more interesting research has come from anthropologists, often exploring the universalists versus relativists debate. Some of this research is merely intriguing, suggesting that love can disappear in extreme circumstances. One study, taking a Freudian theoretical perspective, examined studies by other anthropologists to show in a sexually open society, passionate love is not part of the culture. Others have argued that a better interpretation of the data is that it shows that societies open about sexuality are more secretive about romantic love. More recent research makes a strong case for the universality of romantic love, even if different cultures evaluate it differently.

**Methodological Considerations**

Much of this scientific thought has only been developed as hypotheses rather than formal scientific research. Moreover, the empirical research that has been done is

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hard to integrate because it comes from a variety of theoretical perspectives. We await a clear scientific answer to the question: What is love?\(^{69}\)

However, most scientists would view romantic love as an emotion and therefore a biological-social-cultural construct. There is a certain amount of support for this view in the evidence coming from anthropological and psychological cross-cultural studies (which plausibly tie in with evolutionary and biological-cultural theories) suggesting a universality of the romantic love experience, even if cultures differ on how they interpret and value this experience.

But if love is primarily an internal emotion, this presents difficulties when gathering data to study it, particularly from a historical perspective. With the possible exception of modern neuroimaging techniques, we have no way of directly observing love. Psychologists have relied chiefly on the self-reports of their subjects: Historians only have access to some letters and diaries about inner thoughts. If, on the other hand, as some scientists believe, romantic love is an evolutionary adaptation then accordingly it must be associated with adaptive behaviour.\(^{70}\) In which case psychologists and historians could study the behaviours associated with romantic love -- sometimes known as courtship behaviour. Finally, if the sociologists are right and the main focus of love is within society and culture, then marriage patterns and the media become a useful source of data. However, Sarsby's research, which convincingly showed that gender and social class more strongly predicted attitudes to love than the choice of stories women read, cast doubt on whether strong inferences can be drawn from studying men's and women's magazines (a favourite data source for historical researchers).\(^{71}\)

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THE HISTORY OF THE CONSTRUCT OF LOVE

Introduction
The scientific history of love is a fairly straightforward problem of historical research, at least as far as constructing a meaningful narrative from the source material. Scientists are usually attempting to express their thoughts on love as clearly as possible, and often make some effort at definition of terms and precision of thought, which means that one can trace ideas relatively easily through academic journals and books.\(^{72}\) This is not the case when trying to trace historical change in the conception of love in a wider population. Those writing about love are not necessarily trying to get their ideas on love across, they do not routinely define their terms, sources are not so neatly laid out, and it is by no means clear what the most appropriate source material is.\(^{73}\) Moreover, it is in fiction that references to love are most frequently found,\(^{74}\) but their fictional form makes them amenable to a wide variety of interpretations.

Faced with these undoubted difficulties, many historians abandon empiricism and retreat into a highly theoretical approach, writing for example a ‘psychoanalytically informed’ history,\(^{75}\) or one based on phenomenology.\(^ {76}\) These make for turgid reading and are of little use as secondary sources. Moreover, historians themselves routinely shy away from defining their terms, and do not seem to make a distinction between romantic and other kinds of love. Neither is it always clear if historians are studying changing cultural attitudes towards emotions and ways of expressing them or changes in emotions themselves.\(^ {77}\) Finally, it is routine for the methodology of this historical research to be either not mentioned at all, or described in such vague terms as to make replication impossible.

When even an enthusiast of emotional histories such as Peter Stearns acknowledges that historians overstate their case at times,\(^ {78}\) it is with some scepticism that one reads the firm conclusions that characterise the majority of historical writing on the subject of love.

General History of the Concept of Love\(^ {79}\)
The history of emotions has not been a popular topic with historians, despite

\(^{72}\) The secondary sources on the history of disease concepts and lovesickness are similar in these respects.


\(^{79}\) This history concentrates, as do most historians, on what might be called the social history of love, rather than a philosophical, theological, or political history. It concerns itself more with courtship behaviour, and how people in the population thought about love, rather than how intellectuals viewed love, though these ideas intrude intermittently.
numerous calls for their study, beginning at least as far back as 1941 with a famous article by Lucien Febvre, 80 and continued with enthusiasm by Peter Stearns. 81 What applies to the broader topic also applies to the study of love. There has been little historical scholarship on love in the western world, and most of what there is has been written over the last twenty years. There is, however, what could be called a traditional history of love, 82 which is worth outlining before suggesting modifications.

**Traditional View of the History of Love**

According to this traditional history, love was known to the ancient Greeks. It was similar in emotional content to modern concepts, but considered merely an amusing pastime, or an affliction sent by the Gods. Expressions of love were usually directed towards courtesans or homosexual partners. 83

In the Old Testament the word love had a variety of meanings, including the passionate feelings between men and women. In the Song of Songs, love designates sexual desire for a woman or man. 84

In the early period of the Roman Empire, marriages were controlled by the parents. Love was often seen as an exuberant, lustful, and adulterous game. 85 During the latter period of the Roman Empire, societal or familial controls of man-woman love and marriage relationships declined under the influence of urbanisation and increased social wealth. Heterosexual relations and romantic love were formally recognized as normal social functions for marriage purposes. 86 The Christianisation of the Roman Empire led to greater emphasis on the importance of marriage, and the disassociation of love and sex. Love was an emotion regarded as most appropriately directed to God, a form of love often called agape. 87

The key period in the emergence of the Western concept of romantic love, according to traditional historians, began in the eleventh century in Provence, France, with the development of Courtly love. 88 The idea was that a nobleman would fall in love with a lady, devoting himself to her every wish, however trivial or hazardous. Though at first glance there were marked differences with the modern concept -- the relationship

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was usually adulterous, and apparently sexless -- there were important similarities, and in particular the idealisation of love (to an extent that Courtly love almost became a religious experience, like the Christian concept of agape).  

These ideas did not initially spread to the wider population, and from the early eighteenth century the intellectual climate of the enlightenment dampened enthusiasm for romantic love.  

In the late eighteenth century, however, this changed with the coming of Romanticism.  

Romantic love emerged as a popular idea among the expanding middle-classes, but transformed from Courtly love by Christian and Renaissance ideas and the beginnings of the Industrial Revolution into a recognizably modern form -- passionate and idealised -- but without the sexual connotations.  

In the twentieth century an idealised love dominated Western society: it was the most desired emotion, the basis for relationships, and the source of constant interest in the media.  

We lack a comprehensive modern history of love updating the traditional view, and while there is a certain a body of research (produced as much by sociologists as historians) which modifies this traditional picture -- particularly of the nineteenth and twentieth century -- this gives a fragmentary picture which is hard to draw together into a coherent whole.  

Pre-Nineteenth Century  

The idea that eleventh century Courtly love was the birthplace of modern love has been strongly challenged, and is no longer considered the standard interpretation.  

Medieval love literature appears to show a much wider range of attitudes to love, even among the aristocracy than that suggested by Courtly love.  

And, although some authors still see the industrial revolution as the birthplace of romantic love, evidence has accumulated for romantic love pre-dating this.  

For example, the English parish registers from the sixteenth century indicate that marriages for love rather than at parental behest were the norm, at least among the non-aristocratic classes, and the

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86For a good summary of more recent work on the nineteen and twentieth century see: Peter N. Stearns and Mark Knapp, 'Men and Romantic Love: Pinpointing a 20th-Century Change', *Journal of Social History*, Summer (1993) 769-95.  
Church Court records suggest that the practice pre-dated this.¹⁰⁰

**Nineteenth Century Onwards**

Much of the historical interest in the nineteenth century revolved around the relationship between love and sex. In the early nineteenth century, sexual instinct was deemed such a powerful force that it had to be properly channelled: that is to say in a loving marriage.¹⁰¹ Love, in contrast, was seen as spiritual rather than romantic or erotic.¹⁰² While these ideas persisted to the latter part of the century ¹⁰³ sex was thought increasingly part of love.¹⁰⁴ The perceived importance of romantic love within the context of courtship and marriage continued to increase, though the evidence is confused as to whether this change affected men as much as women.¹⁰⁵

It is probably no coincidence that the most studied century, the twentieth, is the hardest to construct a coherent narrative about. It appears to have been characterised by the complex intertwining of sometimes contradictory trends with regard to the concepts of love and romantic love. Possibly this in part it is an accurate reflection of what happened, but may also reflect widely different methodologies.

One strand of research investigates the idealisation of romantic love. Some historical research suggests that at the turn of the century Americans continued to have a highly idealised view of love. Women felt that they should be drawn to their ‘true loves’ as if by a magnet and that this passion should be an intense and meaningful experience; while men were on the lookout for their ideal woman.¹⁰⁶ It was believed that men felt love more intensely than women.¹⁰⁷ Peter Stearns¹⁰⁸ has argued for a de-coupling of the men’s and women’s views of love in the nineteen twenties and thirties with men taking a less idealised view.¹⁰⁹ But, past the mid-point of the century, as we move from historical to contemporary research, the evidence suggests that love continued to be idealised. Freedman’s 1978 survey of 100,000 Americans revealed that they thought the strongest association with happiness was love within marriage.¹¹⁰ In another study from the nineteen eighties, the vast majority of college-age men and

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¹⁰⁹Stearn’s contrast between feminine romanticised love compared to a more ‘realistic’ male love, appears remarkably similar to the division of love into romantic and companionate currently popular in the scientific world.
women viewed romantic love as desirable for the establishment of marriage, a result not found as strongly in the mid sixties, suggesting idealisation of love was actually increasing.\textsuperscript{111}

Another strand was the loss of the perceived spiritual quality of romantic love, possibly as a result of greater gender contact,\textsuperscript{112} while at the same time it became increasingly sexualised. The early twentieth century saw the continued sexualisation of romantic love,\textsuperscript{113} but then there appears to have been a de-coupling once again of sex and romantic love: In the nineteen twenties it was still generally considered that love was necessary for sex,\textsuperscript{114} but by the nineteen sixties this attitude was changing, particularly among men.\textsuperscript{115} However, the eighties and beyond there were counter-trends with a movement to bring sex back exclusively into marriage and re-spiritualize it.\textsuperscript{116}

The twentieth century also saw a feminisation of the concept of love,\textsuperscript{117} with an increasing emphasis on intimacy.\textsuperscript{118}

A further trend was suggested by a sample of articles on marriage from women’s and general magazines from 1900 to 1979. This suggested that the major change in women’s attitude to love occurred during 1960s and 1970s. Love changed from love as self-sacrifice (suppressing one’s interests and feelings and attending to the needs of the husband and the marriage) to love as self-assertion (openly expressing one’s thoughts and feelings).\textsuperscript{119}

Methodological Considerations

One piece of research in this revision of the traditional history is worth looking at in more detail, as it suggests a way forward in improving historical methodology.

In 1988 Francesca Cancian and Steven Gordon, published a piece of research on emotional norms for love and anger in women living in the United States during the twentieth century.\textsuperscript{120} What was of particular interest was their novel methodology. After doing a fairly standard qualitative analysis of women’s magazines in the United States for their period, for a comparison they performed some quantitative analysis.

The qualitative arm of the research came to the conclusion, at least with regard to love norms, that from 1900-1979: ‘norms about love changed from emphasising self-sacrifice to advising self-fulfilment.’ The quantitative analysis of this self-sacrifice/self-fulfilment dyad, however, provided little convincing evidence to back up this conclusion, showing instead wild fluctuations, and finishing in the seventies with still more than twice as many articles advocating self-sacrifice as self-fulfilment. This contrast between the qualitative and quantitative data was hardly commented on by the authors but raises some interesting questions. While the quantitative data may be flawed in a number of ways (too small a sample was the most obvious problem), it seems just as plausible that the qualitative research was the more inaccurate, which makes one wonder about the plethora of similar qualitative analysis which haven’t tested their conclusions against quantitative data.

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THE HISTORY OF THE DISEASE CONCEPT

General: What is a Disease?
Despite hundreds of years of trying, philosophers, doctors and other interested people have struggled to come up with a definition for disease that is universally acceptable.

Language can give clues to the meaning behind the word. In some Indo-European languages there are many synonyms for disease, but they can be grouped into four categories of related meaning: (1) weakness, loss of capacity to perform work; (2) deformity, unsightliness; (3) discomfort, feeling of unease, malaise; (4) suffering, pain.\textsuperscript{122}

However, in this thesis the word disease will be used in a narrower sense. Historians, following the lead of philosophers, generally make a distinction between ‘illness’ - the patient’s experience of symptoms and suffering - and ‘disease’ a construct developed by the treating professional in order to understand the illness.\textsuperscript{123} Disease is seen as a construct because it is more than simply biology -- various social and culture values mould the concept of disease.\textsuperscript{124}

What makes up this disease-construct? Certain elements have been consistent over time and can be seen in the earliest civilisations.\textsuperscript{125} There is a description of the disease: Diseases are given characteristics (symptoms), names (diagnoses), life expectancies (course), anticipated outcomes (prognoses), recommended treatments, and causes (aetiology). Theories of disease causation can be divided into two broad models: ontological and physiological. Ontological theories posit that diseases are discrete entities, existing quite separately from the patient, and which invade the patient from the outside: demonic possession and Pasteur’s germ theory are both examples of this. In contrast, physiological theories hypothesise that diseases arise within the patient and are not separable from the patient. Epilepsy, as conceptualised both by Hippocrates and modern medicine is an example of the latter model.\textsuperscript{126}

Diseases are commonly categorised using either their symptoms -- a practice known as nosology -- or their identified cause.

Underlying this description of disease, one theory dominates medical practice -- the organismic, or individual theory of disease, which holds that diseases are bad, discontinuous, and affect individuals.\textsuperscript{127} This contrasts with, for example, a public health view, which sees diseases existing in a population and therefore not discontinuous.\textsuperscript{128}

The structure of the organismic disease concept appears to change little over time or indeed between cultures,\textsuperscript{129} but the content and emphasis on the different elements of the description do. For example, to understand disease causation, doctors focus on abnormalities of structure and function, which are the objects of the complementary disciplines of anatomy and physiology. The relative importance of these, particularly anatomy, has varied with time. Medical cultures that emphasised the study of anatomy peaked centuries ago in Alexandria, then declined, peaked again during the Renaissance, then declined, and peaked again in the nineteenth century.\textsuperscript{130}

\textbf{History of the Disease Concept in Western Medicine}\textsuperscript{131}

\textbf{Ancient (800BC – 500 AD)}

Western Medicine’s origins can be found in Ancient Greece and in particular the period 420-350 BC when the Hippocratic Corpus was written. A novelty of the Hippocratic Corpus was its rejection of traditional medical causation models, which embraced both the natural and supernatural in favour of a solely natural model. This natural causation was conceptualized chiefly as imbalances in humours (originally three, later four) -- a physiological theory. Other distinctive features of Ancient Greek medicine were its emphasis on observation and its strong links to philosophy, particularly the ideas of Aristotle.\textsuperscript{132} It was these elements -- the natural causation model, learning from observation, and links with philosophy -- that later allowed Western medicine to closely associate itself with the Scientific Revolution, which greatly shaped its modern character.

After some initial resistance, Greek medical ideas about disease spread to Rome and the Roman Empire. The most important physician during this period was Galen, a Greek physician based in Rome in the second century, who fused Hippocratic ideas of humours with Aristotelian philosophy.\textsuperscript{133}

\textsuperscript{128}Discontinuous meaning that either the disease is present or absent; rather than the public health view which is interested in the degree to which a disease is present in the population.
\textsuperscript{131}Derived largely from:
Medieval (500-1500)
During the medieval period Galen’s ideas about disease dominated the Christian world. They were largely compatible with Church teachings; doctors had few alternative sources of medical thought, and did not have the resources, encouragement or inclination to strike out on new paths. There was, however, renewed emphasis on supernatural causation, or more specifically disease caused by God. Within the Islamic Empire, on the other hand, more effort was made to preserve and systematize knowledge passed on from Greek medicine, but even here, there was little that was novel in the conception of disease. Towards the end of the medieval period, medical writing from the Arab world became increasingly known in the West, building up the intellectual environment for more dramatic change during the Renaissance.

Renaissance (1500-1700)
The Renaissance and the Scientific Revolution had a major and continuing effect on Western medical conceptions of disease.

Initially efforts concentrated on recovering accurate translations of the medical treatise of the ancients, and a revived and purified form of Galenism. However, advances in anatomy\textsuperscript{135} and physiology (especially William Harvey’s dramatic demonstration of blood circulation in 1628)\textsuperscript{136} paved the way for radical new conceptions of the body. The philosopher René Descartes was particularly influential in this regard, dividing humans into the mind, which was unknowable, and the body, which was like a machine, and therefore open to investigation.\textsuperscript{137}

Enlightenment (1700-1800)
In the Enlightenment period, medicine continued to be highly influenced by the scientific revolution and was characterised by quantification, taxonomic classification of disease,\textsuperscript{138} and the localisation of disease, firstly to organs and then tissues.\textsuperscript{139} In treatment there was a gradual shift from the more holistic treatments favoured by Galen to pharmacotherapy.\textsuperscript{140}

Modern (1800 on)
The modern period continued the trends of the Enlightenment, and in particular the increasingly biological and scientific view of disease.

The French Revolution heralded the start of the nineteenth century and with it anatomico-pathological medicine. Building on the ideas of the Enlightenment, disease was to be localised anatomically (particularly using the new techniques of auscultation and percussion) and preferably to a tissue, with autopsy being the ultimate arbiter of what disease a patient suffered from.\textsuperscript{141} This century also saw the rise of the laboratory with its increasingly sophisticated technology (and especially the microscope), principally in Germany, where laboratories became integral to new, well-funded universities. Laboratory-based science led to the focus of disease moving from tissue to cell level. Then, under the influence of Louis Pasteur (1822-96) and Robert Koch (1843-1910) germ theory became a dominant model of causation in disease. Koch’s postulates encouraged the idea of a specific cause for a specific disease.\textsuperscript{142}

The twentieth century brought further scientific advances to medicine, and further changes to the concept of disease with cell theory, immunology, and genetics all increasingly influential.\textsuperscript{143} Moreover, during this period it was not just disease causation which became more scientific and technological, so did treatment, with striking successes in surgery and immunisation in the nineteenth century, and a revolution in drug treatments in the twentieth century.

**History of the Mental Disease Concept in Western Medicine**

What about disease conceptions of emotions? In modern thought emotional disorders would come to be characterised as mental or psychiatric diseases in contrast to physical disorders, though it is doubtful this kind of distinction was clearly made before the Renaissance.

The concept of mental disease conforms to the ideas of physical disease discussed above. Mental diseases share the organismic viewpoint, identical descriptive characteristics (symptoms, diagnosis, course, prognosis), and use ontological and physiological models of causation. The specifics of causation were thought to be similar: the product of unseen but physical causes, such as diet, poisonings, occult infections, or structural changes.\textsuperscript{144} While these causes may have been hard to find in practice, prior to the Renaissance this was the same situation faced by physical medicine.

Hippocrates promoted a theory that mental and physical illnesses were due to an imbalance of humours. Galen extended Hippocrates theory to personality types, naming these types sanguine, phlegmatic, choleric, and melancholic. In the Middle Ages, however, mental disorders were often thought to be the work of demonic forces. Clergymen, not physicians, were seen as the healers. The most significant attempt at psychiatric classification was made by Gilbertus Anglicus. His


Compendium Medicine (1230) offered descriptions of mania, melancholia, lethargy, epilepsy, and demonic possession.

From the Renaissance on there was an increasing knowledge of the physiological and anatomical basis of physical but not mental disease. It was this group of mental diseases, poorly understood anatomically and physiologically, that the new medical subspecialty of psychiatry inherited in the nineteenth century. And if there were occasional scientific breakthroughs into the anatomy of physiology of these diseases - examples include epilepsy, tertiary syphilis, mental retardation, cretinism, and deafness -- these in turn were usually reclassified as non-psychiatric disease. One area psychiatry could keep up was in nosology -- the increasing populations of mental asylums gave physicians the opportunity to observe patterns of mental disease and so categorisation (usually using symptom clusters) became the cutting edge of psychiatric research.145

Emil Kraepelin (1856-1926), while in many ways a traditional symptom nosologist and a believer in ultimately discovering the underlying biological pathology of mental illness, attempted to clarify the definition of psychiatric disease by emphasising the course and prognosis, most famously separating dementia praecox (later renamed schizophrenia) and manic-depression (later renamed bipolar affective disorder) on this basis.146 Kraepelin’s classification remains the framework for much modern psychiatry -- indeed his textbooks can be seen as the forerunner of today's diagnostic systems.147

Sigmund Freud (1856-1939) in his psychoanalytic disease model posited an interesting solution to this lack of physiological or anatomical underpinning of psychiatric disorders. Instead of a biological model of causation he developed a social-psychological one. While not denying that there was an underlying biological cause for mental illness, he believed that this would only be identifiable at some unspecified time in the future. In the mean time he suggested that mental illness was best viewed as originating in unconscious psychological processes, developed in turn by certain crucial happenings during the patient’s early development.148 Up to a point this fitted in very well with an ontological, organismic disease model. However, it was a radical departure from nosological psychiatry, as symptoms were rejected as the key to making a diagnosis, which was rather based on identifying unconscious processes. Moreover, while aspiring to be based on scientific observation, and therefore part of the medical-scientific revolution, psychoanalysis never developed a satisfactory method of observing unconscious processes. The techniques commonly used -- observing slips of the tongue (Freudian slips), listening to patients saying whatever thoughts came into their minds (free-association), doctors self-monitoring emotions while treating the patient (countertransferance); and analysing dreams 149 --

148 It is, however, almost impossible to find a text willing to express psychoanalysis this simply. See, for one example among many: Glen O. Gabbar, ‘Psychoanalysis’, in Comprehensive Textbook of Psychiatry, 7th ed., Benjamin Sadock and Virginia Sadock (eds), Philadelphia: Lippincott Williams and Wilkins, 2000, pp. 563-607.
did not appear impressive when set next to the microscope and X-ray machine. Despite this, Sigmund Freud was very influential, particularly in the first half of the twentieth century.

Psychiatric classification of disease has remained reliant on a nosology of symptoms and behaviours rather than physiology or anatomy. This is potentially problematic for two reasons. Firstly, because ‘normal’ behaviour is socially and culturally determined; therefore any behaviour which deviates from socio-cultural norms can potentially be labelled ‘abnormal’, ‘mad’, or ‘insane’. Secondly, without underlying anatomical-pathological abnormalities to act as the ultimate arbiter, consistent identification of disease was highly unreliable. In an attempt to address this problem two connected classification systems were developed -- the DSM and ICD.

The Development of the DSM and ICD
The Diagnostic and Statistical Manual of Mental Disorders (DSM) was developed in the United States of America and focuses on psychiatric disease, while the International Classification of Diseases (ICD) is an international venture, with a focus on all medical disease. Despite these differences, the development of both systems has been linked together.

The ICD classification system developed out of an international collaboration to get accurate mortality statistics. The first edition appeared in 1900 and it has subsequently undergone a revision approximately every 10 years. Similarly, the need for a classification system in the United States was driven initially by a statistical need -- gathering accurate information for the census. There was, however, no unitary system, and by the end of the Second World War a number of rival classification systems were in use in the United States, including a Veterans' Administration nomenclature.

This Veteran’s nomenclature had a heavy influence on the sixth edition of ICD (1948). ICD-6 was the first edition published by the World Health Organization (WHO), which issued all subsequent editions. ICD-6 was notable for other reasons: the introduction of categories for morbidity as well as mortality, and, for the first time, the inclusion of psychiatric disease. Despite this, it was of limited use except at a public health level, being in essence a list of disease names only, and a number of countries, most notably the USA, published companion clinical modifications from ICD-6 on. One example of this practice of modification was DSM-I (1952) published

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by the American Psychiatric Association (APA).\textsuperscript{155}

However, the psychiatric categories in ICD-6, DSM-I, and ICD-7 (1957) were not widely accepted, in part because they were based on unsubstantiated (particularly psychoanalytical) causal theories, so the WHO sponsored a review by the British psychiatrist Erwin Stengel, which recommended the adoption of what are known as operationalised diagnostic criteria based on symptoms. This system not only listed the symptoms characteristic of the disease entity, but also how many symptoms needed to be present to make a diagnosis, and the exclusion criteria. However, these recommendations were ignored for ICD-8 (1968) and the similar DSM-II (1968),\textsuperscript{156} leading to challenges to their reliability and validity.\textsuperscript{157} For example, in 1974, Robert Spitzer and J.L. Fleiss wrote a statistical reanalysis of DSM-II, which indicated that there were indeed major problems with reliability.\textsuperscript{158}

In an attempt to address this problem, Feighner et al. 1972\textsuperscript{159} developed explicit operationalised criteria for fifteen categories of mental disorder along with a considerable amount of evidence for their validity. These categories proved immensely popular, as did an expanded version produced by Spitzer and his colleagues -- the Research Diagnostic Criteria (RDC).\textsuperscript{160} Because of the impact of his work on the RDC, Spitzer became the named head of the DSM-III Task Force.

DSM-III (1980) was ground-breaking in several ways. It purported to be a-theoretical. What this meant in practice was a rejection of Freud’s model of causation and a return to symptom based nosology (while still retaining the hope of discovering the biological causation in the future). It included a multi-axial system for assessment of the patient as an individual as well as a family and community member. Unlike its predecessors, DSM-III was based on scientific evidence. Its reliability was improved with the addition of explicit operationalised diagnostic criteria. Partially in response to the debate over whether homosexuality was or was not a disease (see below), Spitzer also attempted to give some broad guidelines about what was and what was not a mental disease (mental disorder):

\begin{quote}
In DSM-III each of the mental disorders is conceptualised as a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is typically associated with either a painful symptom (distress) or impairment in one or more important areas of functioning (disability). In addition, there is an inference that there is a behavioural, psychological or biological dysfunction, and that the
\end{quote}


disturbance is not only in the relationship between the individual and society. (When the disturbance is limited to a conflict between individual and society, this may represent social deviance, which may or may not be commendable, but is not by itself a mental disorder.)

An interesting feature of this definition is the attempt to draw a line between someone with a disease and someone society views as a deviant.

Due to new research, field trials, and the problem of coding, APA published DSM-III-R in 1987. DSM-III-R was intended to be a short update to the 3rd edition manual; however, there were significant differences between III and III-R with categories renamed, reorganized, and significant changes in criteria.

ICD-9 (1977), which was co-ordinated to some degree with DSM-III, did not copy its innovations, and simply gave thumbnail descriptions of the psychiatric disease entities. With, however, ICD-10 (1992), the WHO seemed to have largely accepted the DSM III system of operationalised nosological psychiatric disease definition. Some attempt was made to harmonize ICD-10 and the upcoming DSM IV. To reflect research conducted since DSM-III-R, DSM-IV was published in 1994, and DSM-IVR in turn in 2000.

The Rise and Fall of the Psychiatric Disease of Homosexuality

The case of homosexuality as a disease concept is interesting for a number of reasons: it illustrates the difficulties of the organismic disease model when applied to psychiatric disease, especially around the notion of deviance; it gives a clear example of a disease-concept which was largely (some would argue wholly) a socio-cultural construct; and finally it shows how a disease can be created and then destroyed.

Homosexuality, if it was thought much of at all before the nineteenth century, was defined as a moral problem. It was thought that people chose whether or not to engage in homosexual acts, much as they chose whether or not to visit prostitutes -- it was a matter of free will. With increasing urbanisation, came a growing awareness of homosexuality, and the concept gradually transformed from a sinful behaviour, to a category of people -- homosexuals. In the last third of the nineteenth century

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167 A similar process was happening with drinking, which during the nineteen century led to the disease concept of alcoholism.
homosexuals began to present to doctors' offices to be diagnosed with homosexuality or 'sexual inversion', which was viewed as a newly discovered illness. Most of these patients appear to have attended voluntarily, eager to try and understand why they were different, and attracted to the notion that their ‘sin’ was simply a medical condition.\textsuperscript{168}

During the twentieth century, particularly in the United States, the situation markedly changed. Under the influence of psychoanalysis, psychiatrists in the first half of the twentieth century had generally been happy to accept that homosexuality was a mental disease,\textsuperscript{169} and a potentially treatable one.\textsuperscript{170} Homosexuality appeared without major disputation in DSM-I and DSM-II. There was, however, a growing body of scientific literature that challenged this viewpoint.\textsuperscript{171} Parallel to this was the gradual development of the gay liberation movement, which by the late sixties had become a vocal advocate for homosexual rights. Within this movement it was no longer enough that homosexuality was considered a medical rather than a moral problem: homosexuality, in their view, was a variant of normal, and therefore labelling it a psychiatric disease was a form of discrimination. The movement launched a series of protests against the APA. It was in this charged political atmosphere that the APA’s nomenclature commission in 1973 heard the scientific arguments in favour of removing homosexuality as a disease from the DSM. The combination of political pressure and scientific reason proved a potent one, certainly for committee member Robert Spitzer. He developed a compromise position, which deleted homosexuality from DSM-II as a specific disease entity, while allowing psychoanalysts to carry on treating the non-specific ‘sexual orientation disturbance’. By the end of the year the APA’s decision making bodies had confirmed this change. Not everyone was happy with this. Dissenting psychiatrists, largely from the American Psychoanalytic Association, charged the leadership of the APA with an unseemly capitulation to political pressure and forced the board to submit its decision to a referendum of the full APA membership, a vote the APA leadership won in April 1974.\textsuperscript{172}

On the surface this story seems to undermine the idea of a psychiatric disease model.

How can something be a disease in 1972 and then be voted out of existence two years later? Part of the answer was the inherent difficulties in clearly defining the boundaries of psychiatric disease and social deviance. It is also more readily understandable if one views disease as a biological-socio-cultural construct. The concept of homosexuality came into existence at a time when society as a whole was being dazzled by biological disease constructs, and willingly accepted the reframing of moral problems as disease entities. Patients willingly presented themselves to doctors and doctors happily diagnosed them. The deletion of homosexuality as a disease was partially political in nature, though this in turn was a reflection of changing culture, both in wider American Society and within the liberal psychiatric profession. At the same time, it is doubtful if this change would have been accepted without the accompanying scientific argument.

Methodological Considerations
Therefore if romantic love was to fit the organismic theory of disease, it would have to be evaluated as bad (at least in certain circumstances), discontinuous, and affect individuals. Romantic love would generally be thought to meet the latter two criteria, it is the former that is the more interesting. In a modern context, are there circumstances that romantic love would be seen to be a bad thing? If viewed as a psychiatric illness, the latter would include behaviour which deviated from socio-cultural norms.

Other characteristics associated with viewing love from a disease perspective would include a search for symptoms, diagnoses, course, prognoses, and recommended treatments. There would also be a search for causation. In the twentieth century one would expect in addition the construction of a taxonomy of love, attempts to measure love, laboratory tests for love, attempts at anatomical localisation of love, and physiological explanations for love.

Though it is worth remembering that DSM-I diagnoses as a body had been voted in by APA members.
Or more precisely, the reformers were able to show the lack of science on the opposing side. It is hard to scientifically ‘prove’ something is not a disease.
THE HISTORY OF LOVESICKNESS

Introduction
Romantic love conceptualised as a disease has been known by many names through history -- lovesickness, erotic melancholy, *amor heres* -- each of which contained a slightly different mix of similar ideas.

History
Ancient (800BC – 500 AD)
Imagery relating disease and love is found in a wide variety of cultures and goes far back into history. Love-disease imagery can be found in the writings of ancient Egypt, in the poetry of Sapho from ancient Greece, and Ovid from ancient Rome. Indeed traces of morbid love appear in poetry before medical texts, and some historians therefore see the concept as originating in poetry and then transferring to medicine.

Moving from the realm of metaphor, morbid love is mentioned in the Bible in both the Song of Songs and the story of Amnon and Thamar, while within Plato’s thinking was a pathological category of love -- a divine madness. People in the Ancient world did not feel the need to leave the treatment of these maladies of love to doctors, therapies being mentioned by both Sapho and Ovid.

Ideas about morbid love appear to have bounced backwards and forwards between these non-medical sources and medicine. The best-known example is the story of Antiochus who fell in love with his step-mother Stratonice. This story was attributed to the physician Erasistratus in the fourth century BC, was popularised in a book of anecdotes for orators by Valerius Maximus, and the moral tales of Plutarch in the first century BC; the latter caught the attention of the physician Galen. This exchange of ideas continued until at least the Renaissance.

Ancient medicine, however, offered little systematic discussion of love, and what there was came relatively late. The writings from the Hippocratic Corpus did not deal explicitly with morbid love, mentioning love rather to differentiate it from ‘true disease’ such as melancholia. Galen’s attitude to love was not clear. He wrote little about love, and his primary concern appeared still to be with distinguishing love from melancholia. What he did write suggests that he did not see morbid love as a Platonic divine madness, nor as an affliction of the body, but rather the soul. Nor did Galen

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explicitly categorize it using the humeral system (though it was a possible path to the humeral disease of melancholia), or give it a separate diagnosis. However, his approach to love otherwise seemed to resemble that of a physician treating a malady, in this case using various distractions -- baths, drinking wine, riding and other pleasurable pursuits -- to help the patient.

Doctors continued to see love more as a cause of disease or something to be differentiated from diseases such as mania, melancholy, phrenesis (frenzy), until the fourth century AD when lovesickness more clearly emerged as a separate diagnostic entity in the works of the Byzantine physicians Orbasius of Pergamum and Paul of Aegina which formed templates for views of lovesickness up until the Renaissance.

Orbasius, like Galen, did not attend much to the aetiology of lovesickness, but gave a classic description of the disease; with symptoms of hollow eyes deprived of tears, continuous motion of the eyelids, and the weakening of the whole body. He went on to say:

Those who are sick with love are sad, cannot sleep or eat, and therefore waste away. When the physician realises that love is the cause of this patient’s disease he must immediately try to remove the lover’s fixation upon the object of his desire, compel him to drink in the company of friends, to take baths, to hear stories. Because it is difficult to distract the lover’s attention, the physician should make use of subterfuge: he must strike fear into the lover’s heart, and with severe reproaches he must convince him to abandon his fixation.

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He also recommended therapeutic coitus.\textsuperscript{189}

Paul of Aegina, a Byzantine surgeon writing in the seventh century, continued the idea that lovesickness was a disease of the spirit (rather than the body) that was caused by violent emotion and the derangement of reason,\textsuperscript{190} but otherwise did not discuss causation in depth.\textsuperscript{191} As well as the signs mentioned by Oribasius, Paul emphasised the diagnostic significance of the pulse. The treatment regime Paul recommended was similar to Oribasius.\textsuperscript{192} Both physicians appeared to differentiate lovesickness from melancholia, which had similar symptoms but was caused by an excess of black bile and therefore needed different treatments.\textsuperscript{193}

\textbf{Medieval (500-1500)}

Like other aspects of classical culture and medicine, the concept of lovesickness passed into the Middle Ages in Europe by two different paths -- directly and via the Arab world.

By the direct path, classical sources such as Ovid and Biblical ideas were influential on the educated layman, while traces of the idea of lovesickness can also be found in popular culture. But early medical thinking moved little beyond the work of Galen and lovesickness was an unimportant medical concept before the eleventh century in medieval Europe. What writing there was (translations of Byzantine authors) appear to be practical with little theoretical underpinning. Much of the healing of those suffering from lovesickness probably passed to the clergy.\textsuperscript{194}

\textbf{The Arabic View}

Things were more dynamic in the Arabic world. With the demise of the Roman Empire ideas about lovesickness passed to the Arabic world via Byzantine medicine. Arabic physicians, either influenced by writers such as Orbasius or from their own thinking, formulated lovesickness as a separate diagnostic entity. Secondary sources differ over whether this was as a linked, but separate disease to melancholy or simply one form of melancholia.\textsuperscript{195} The Arabic physicians usually saw lovesickness as a


form of insanity arising from an inordinate desire to enjoy an object of beauty; a passion that disturbed the humeral balance and could lead easily to melancholy or depression.\textsuperscript{196} Arabic lovesickness, in contrast to later European interpretations, could also be directed towards objects as well as people.\textsuperscript{197}

According to Rhazes\textsuperscript{198} (850-923) lovesickness was also strongly associated with lycanthropy, with patients suffering from skin lesions that resembled dog bites, and wandering through cemeteries howling like wolves.\textsuperscript{199} Similarly, Haly Abbas\textsuperscript{200} in the tenth century lumped lovesickness together with lycanthropy and melancholy.\textsuperscript{201}

It is in the work of Avicenna\textsuperscript{202} (980-1037) that there was the most complete discussion of lovesickness in the Arabic literature. He defined lovesickness as a melancholy anguish similar to melancholy that was self-induced by thinking obsessively about a beautiful object. Love was not inherently a disease but became morbid when not fulfilled: then the obsessive thinking led to physical and mental problems. Avicenna outlined similar symptoms to those described by the ancients,\textsuperscript{203} as well as the key diagnostic test of feeling the pulse.\textsuperscript{204} Treatment was by union with the beloved where possible. When this was impossible, Avicenna first recommended psychological treatment -- distraction and denigration of the beloved -- and traditional distractions,\textsuperscript{205} but if that failed, then standard treatments for melancholia and mania (bleeding and purging) should be used.\textsuperscript{206}

\textsuperscript{199}This was the westernised form of his name. Abu Bakr Muhammad ibn zakariya al-Rasi was his Arabic name.
\textsuperscript{201}Ali al-Abbas al-Majusi was his Arabic name.
\textsuperscript{203}Abu Ali Husayn Abdullah ibn Sina was his Arabic name.
\textsuperscript{204}Poor grooming, sunken and dry eyes, repetitive blinking, excessive laughing, intermittent crying, rapid breathing, perspiration, and an irregular pulse. Inappropriate expression and sleep impairment were also common.
\textsuperscript{205}He recommended speaking different names while monitoring the patient’s pulse. A change in the pulse rate and the quality upon saying the appropriate name indicators the name of the beloved. The test could be repeated for different titles, jobs, places, and cities together with the identified name to further locate the suspected person.
\textsuperscript{206}The patient could be kept busy by means of artificial conflicts, and outdoor activities, such as hunting and gaming.
Arabic ideas and learning began to arrive in Europe in significant amounts in the eleventh century, and medical interest in love appears to have been fairly constant in Europe from the eleventh century onwards. Of particular significance was the arrival of a North African named Constantine the African, who brought a cargo of Arabic medical texts to southern Italy and began translating them into Latin. It was his translation of the *Viaticum*, by Ibn Eddjezzar (who died around 1004), with its chapter on lovesickness, which reintroduced the disease as an important part of Western medical culture, and established a disease-construct for lovesickness that lasted four hundred years.

In Constantine’s *Viaticum* lovesickness was classified as separate to melancholy, though the former could lead to the latter. Confusingly another work by Constantine saw lovesickness as a sub-type of melancholy. The *Viaticum* was not strong on causation. It attributed lovesickness both to the perception of a beautiful form and excess humour. Oddly from a modern perspective, this disease was thought to be confined to nobles and specifically men. The common symptoms included sunken eyes, jaundice colour, insomnia, anorexia, and depressed thoughts. The recommended treatments were familiar ones -- sex, wine, baths, conversation, and music; though they were reformulated as being good for humeral balance rather than simple distractions.

In the centuries following, the Viaticum retained its influence on the concept of lovesickness both directly, and in a series of commentaries written on it which offered variations on the Viaticum, usually drawn from other Arabic or ancient sources.

Models of causation, however, were subtly altered. Medical writing on lovesickness which in the twelfth and thirteenth centuries stayed close to the Hippocratic-Galenic tradition, had by the fourteenth century been infiltrated by debates on whether charms worked, while reserving for the Devil the power to induce insane love.
Renaissance (1500-1700)

Physicians writing on lovesickness in the early sixteenth century usually placed it in short chapters alongside ones on melancholy, mania, hysteria and lycanthropy. For treatment they usually followed the views of Avicenna.\(^{217}\) As the century wore on, the rebirth of Galenic influences led to more emphasis on lovesickness as a disease primarily of the body rather than the soul, and therefore amenable to medical treatments such as bleeding and purging, while enthusiasm for therapeutic coitus waned.\(^{218}\) Similarly, there was increasing interest in the idea, originating from Plato, that the disease entered the body through the eyes.\(^ {219}\) Renaissance physicians tended to divide lovesickness from the normal manifestation of the emotion by using the distinction of chaste from unchaste love -- the former was moderate, sanctioned by custom and religion and led to marriage and children; the latter to untamed desire and deafness to reason.\(^{220}\) Lovesickness was increasingly viewed as a disease that could affect both men and women.\(^ {221}\)

Jaques Ferrand

There were several notable authors who published works on lovesickness in the sixteenth and early seventeenth century, including Francois Valleriola, André Du Laurens, Jean Aubrey, Jean de Veyries and the clergyman Robert Burton.\(^ {222}\) Arguably the most important publication was Jaques Ferrand’s *A Treatise on Lovesickness*. It is an encyclopaedic work; inconsistent in style and theory, but giving a summation of the Renaissance conceptions of the disease.

Taking a broad view, Ferrand includes much that is sexual within his discussion of lovesickness (and may have been the first to coin the term ‘erotomania’);\(^ {223}\) though a lot of the sexual content was removed in the second edition possibly under pressure

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\(^{221}\)Mary E. Fissell, ‘Gender, Sex, and Lovesickness’, *Women’s Health in Primary Care*, 2:1(1999), 66.


by the Church. Ferrand saw the aetiology of lovesickness as a combination of internal and external factors including among others: the stars, hot spicy food, the condition of the blood, the anatomy of the brain, the senses, the attraction to objects of beauty, the atoms entering and exiting by the eyes, idleness, seasons and climates, the constitution of the humours, and hereditary tendencies. These factors in turn would lead to a disturbance in the humours, affecting the brain and manifesting in various ways such as mania, melancholy or lycanthropy. Those suffering the disease had certain characteristic symptoms: ‘a desire for solitariness, sighing, hollow eyes, sleeplessness, loss of appetite’. Moreover this was often accompanied by the agitation of the eyelids, a greenish-yellow tint of the skin and sudden tears. The pulse would accelerate or become uneven in the presence of the beloved.

**Enlightenment (1700-1800)**

Ferrand had attempted, with only partial success, to bring together all possible ideas regarding lovesickness to form a coherent whole. After Ferrand, however, the rise of nosology and taxonomy that was to reach its peak in the Enlightenment began to have its effect on the conceptualisation of lovesickness. It was given other names for example erotomania, and subcategories – nymphomania, tarantism, narcissism often with the sexual components emphasised.

However, in the eighteenth century, lovesickness, particularly that associated with melancholy, became an integral component of medical school curricula in Europe. Among the 1,100 medical dissertations of psychiatric interest printed before 1750, there were forty-two dealing with excessive love. By contrast, it seems to have lost favour during this period as a metaphor in the arts, and with Galenic medicine in decline it needed reformulating for the modern world.

**Modern (1800 on)**

Lovesickness was one of the anatomically and physiologically mysterious diseases inherited by psychiatry in the nineteenth century, and became the object of the same taxonomic and nosological processes as other psychiatric disease. By the early nineteenth century, lovesickness had been subdivided into multiple categories, many

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One category that emphasised morbid love was erotic monomania. In 1838 Etienne Esquirol published his classic psychiatric textbook ‘Des Maladies Mentales’. In the manner of its time this book was based on clinical observation, classification and some attempt at anatomical localisation. One section of the book concerned the concept of partial insanity, or monomania. The monomanias comprised a range of mental disturbances where there was a relatively isolated disorder of the intellect, the will, or the moods (as opposed to a more generalised insanity). Types of monomanias were identified and named such as homicidal monomania, drunkenness monomania, and erotic monomania.

Esquirol’s description of erotic monomania was illustrated liberally with familiar anecdotes from ancient sources, and appeared to borrow heavily from Ferrand’s ideas on lovesickness, though it was adapted to modern thinking. The conception was broad, with cases described which sound identical to Ferrand’s erotic melancholy, cases which sound far more like modern conceptions of delusional erotomania (discussed in more detail later), and variations which fell somewhere in between.

In keeping with the new philosophy – this time anatomical localisation – the erotic monomania was identified as coming from the brain – and possibly the cerebrum. Causes were a mixture of the new and the familiar: a nervous temperament, a lively imagination, masturbation, celibacy, reading romances, idleness, and those who have ‘received a voluptuous and effeminate education’. If untreated the prognosis could be severe, with erotic monomania leading to suicide, dementia, sudden death (by rather unclear mechanisms), melancholy, and mania. Treatment was hardly revolutionary: marriage to the beloved was the first strategy; baths, wine and other distractions if that failed. Bleeding and therapeutic coitus were no longer recommended.

The term ‘monomania’, however, lost popularity and by the middle of the century had almost disappeared.

The Disappearance of Lovesickness
In a similar fashion to monomania, lovesickness as a disease-construct was on the wane in the nineteenth century; and sometime in the twentieth century, lovesickness’ disease status seemed to vanish. The literature does not give specific reasons for this disappearance, other than the tautological explanation that medical fashions

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234 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845, pp. 335-42.
235 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845, pp. 335-42.
change, and interest in lovesickness was simply replaced by an increased interest in pathological forms of sexual behaviour, which in part reflected the changing views of the patients presenting to doctors.

All that appeared to remain were a few bits and pieces such as: erotomania as a type of delusional disorder; doctors falling in love with patients; and love causing the secondary problems of suicidality and jealousy. One author believed, however, that there are new forms of lovesickness: for example co-dependency.

**Lovesickness and the Psychodynamic Tradition**

It could be argued that another remnant of lovesickness was the psychodynamic conception of morbid love. Psychodynamic thinkers have consistently acknowledged the existence of morbid love. There are two strands to this: Firstly, psychodynamic principles are used to explain the aetiology or cause of specific psychiatric diagnoses (in the following chapters these psychodynamic ideas will be seen frequently). Secondly, the psychodynamic theorists mentioned earlier outlined what they believed was normal love primarily so that dynamic therapists could separate it from abnormal, or neurotic love -- although from Freud on the distinction between the two was often not clear. However, psychodynamic conceptual models are sufficiently different from the medical theories of disease so that they do not fit easily into a historical narrative of the medical disease concept of lovesickness. Moreover, it is not within the scope of this thesis to describe in detail the many psychodynamic theories of love.

**Methodological Considerations**

The secondary literature suggests a number of disease categories that may be directly descended from lovesickness: nymphomania, erotomania, jealousy, and lovesickness itself. It also suggests that the concept morbid love could reappear in novel ways such as co-dependency.

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241 Psychological ideas derived from Freud.
243 Particularly as the abnormalities described would seem more to be character flaws rather than what are commonly conceptualised as diagnoses. It could be argued, however, that there is a connection here worth exploring with the DSM conception of Personality Disorders, in which difficulties with love are occasionally mentioned.
Methodology
Questions
This study examined two problems, one historical and one methodological. These can be expressed in question form:

1. Were there disease concepts for morbid love in the second half of the twentieth century? And if so, are these the remnants of lovesickness that can be linked historically to the original disease concept, does the same concept re-emerge under a new diagnostic name, or are these novel re-formulations of the concept of morbid love?

2. In researching the previous question, can we improve on routine historical methodology by greater emphasis on empirical, quantitative data?

It was hoped that by looking at the conceptualisation of morbid love in a relatively homogenous group -- Western psychiatrists, medical doctors and psychologists -- using data from journals and books that tended to be produced and consumed by the same group, this would avoid the potential problem identified by Sarsby's research⁴⁵ -- confusing historical changes in ideas with a-historical social or cultural differences.

Classification and Definition
But first the problems of definition. Problems of definition bedevil studies of love.⁴⁶ As M.M. Hunt put it: ‘Love…is a quicksilver word; though you see plainly where it is, you have only to put you finger on it to find it is not there, but some place else.’⁴⁷ To make things more difficult, ideas about love have changed over time.

But we need a perspective from which to view this change, a current set of concepts to compare with the past. While no one typology or definition of love has been accepted by all researchers, contemporary scientific thought provides a useful perspective for this study.

Some classification or typology is necessary for the analysis, as in the English language ‘love’ is a broad term. In both lay and scientific literature a number of subdivisions are usually made. There is seen to be a distinction between love directed towards a romantic partner, love directed towards family and close friends, a religious love, and love directed towards a non-human recipient (a car or a pet for example). Whether all these types of love, grouped together linguistically in English (and German), are genuinely different forms of the one thing is a matter of debate, though certain thinkers (Freud and Plato for example) have unified theories of love. This study will look primarily at love directed at a romantic partner, and unless otherwise specified the word ‘love’ will refer to this concept.

A further common and useful subdivision, both in lay and scientific literature, is to divide this love into two. Firstly, and most importantly to this study, is what would commonly be called in recent scientific literature ‘romantic love’ (though it is also

known as passionate love, limerence, romantic passion, infatuation, or erotic love). This describes the intense emotional experience of being ‘in love’ or falling 'in love'. Pamela Regan emphasised three key elements of this type of love: emotional intensity, instability, and sexualization. William Janowiak defined it as: ‘any intense attraction involving the idealization of the other within an erotic context. The idealisation carries with it the desire for intimacy and the pleasurable expectation of enduring for some unknown time in the future.’

In modern lay and scientific thinking this is separated from what scientists would call ‘companionate (conjugal) love’, a more long-lasting and stable, if less intense emotion. Regan sees companionate love as characterised by emotional intimacy, less intensity, durability, and interdependence. Janowiak believes companionate love to be ‘characterised by the gradual and oftentimes unperceived change into a more peaceful, less intense, and more fulfilling relationship. Love in this stage is built on a strong and abiding mutuality of affection, care and respect that derives from a long-term association.

It is only since the seventies that the scientific community has commonly made this distinction between companionate and romantic love. Historians rarely make this division explicitly.

Structure
Why this methodology?
The background literature on this topic suggests problems in coming up with an appropriate scientific methodology for studying the evolution of concepts (such as the

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Though few would deny the concepts overlap.
concept 'love') over a period of time. Previous studies of emotion have tended to make large claims, which are hard for the reader to evaluate because the methodology is not clearly spelt out and there is an absence of quantitative data.

It does not seem impossible for a historical study to address these problems. A way forward, building on the ideas of Cancian and Gordon, would appear to be a combined quantitative and qualitative approach, but with more explicit methodology. For the quantitative aspects this study draws heavily on the methodology of evidence-based medicine, and in particular systematic literature reviews, which use standard rules to minimise bias and maximise reproducibility. This study aims to:

- Have a clear question that each search is trying to answer
- Have sufficiently wide criteria so as not to miss important data
- Have explicit search criteria
- Have explicit criteria for inclusion or exclusion of data

For this type of methodology to work, given the potentially vast amount of information, database searching computer programs are necessary, and fortunately for this topic they exist -- psychINFO and Medline. These are gigantic referencing systems for letters, books, and scientific articles. The first is a psychological database and the second a medical database. A combination of these would seem ideal for psychiatry which operates in an area overlapping these two fields. One way of looking at them (and determining how to study them) is as repositories of scientific ideas and concepts, or metaphorically the scientific brains of psychology and medicine. Both these databases are compiled by organisations in United States of America (see Appendix I for a description and history of these databases).

Types of Searches
These databases are usually searched in one of two ways. Firstly, they can be searched for keywords (most commonly looking in the title and abstract). Secondly, they can be searched looking for concepts. In the latter case, the researcher looks up words in the database dictionary (Thesaurus in psychINFO and MeSH in Medline) and is usually given a definition and other contextual information such as the date the term was introduced, what it replaced, and whether there are subcategories or supercategories. This search term can then be used to look for articles categorised as being mainly about the concept; or to some degree about the concept (the latter called an expanded search); or subcategories of the concept (called an exploded search). What this means in practice is the databases can be searched for ideas. The ideas are themselves contemporary, but in theory one can see them emerge or disappear over time. In this study, which was mainly about changing ideas and concepts, where

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257For example, even when references are given, it is not clear how the author gathered these references leaving open the possibility of a biased collection system. Moreover, it is not possible to validate the author's conclusions by repeating the study.

258However, it is also important not to lose important contextual information which can only be gathered with often hard to replicate qualitative methods.


261These first two were thought to provide useful contextual information, as definitions created at one point in time cannot necessarily be used with precision at another (see the Discussion).
possible concept searches were used (where this was not the case is noted). In each search, the search terms and how they were used is noted in some detail so that the search is reproducible.

**Exclusion and Inclusion Criteria**

A search in these databases will produce a title, and usually an abstract and a list of the concepts the database associates with the article. In some cases it will allow direct access to the article. This information was the raw data for the bulk of this thesis.

Unfortunately there was no specific search term in either database for romantic love. In psychoINFO there were Thesaurus search terms but no definitions for both 'love' and 'romance'. The Medline MeSH had a definition for love which was much broader than the definitions of romantic love given above: 'Affection; in psychiatry commonly refers to pleasure, particularly as it applies to gratifying experiences between individuals.' MeSH had no term for romance so for most searches the key words 'romance', 'romantic' were added.

This combination of terms and keywords produced a broad search with many articles identified which were not about romantic love. This raw data then had to be further analysed by the author to find references truly about romantic love (using the conceptions described above) and whichever other concept (usually a disease construct) was being searched for. Two major overlapping difficulties were that it was often not clear from the title or abstract what the article meant by 'love', or what was meant by 'romantic relationship.' To assist the consistent inclusion and exclusion of articles the following rules were used:

- Review of the abstracts was given precedence over which search terms were used to categorise the reference when deciding whether it was about romantic love.
- When the abstract and dictionary definition contradicted each other, or in other areas of ambiguity an attempt was made to access the full article.
- Unless there was further evidence that a 'romantic relationship' involved romantic love it was assumed it did not, but rather suggested a partnership between adults with a sexual element (as this appeared to be how the term was most frequently used).

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262 Year Term Introduced 1973. Tree information: Broader, 'Emotional States'; Narrower, nil; Related, 'Affection', 'Attachment Behavior', 'Erotomania', 'Intimacy' and 'Romance'.

263 Year Term Introduced 1997. Tree information: Broader, nothing; Narrower, nothing; Related, 'Affection', 'Couples', 'Human Courtship', 'Human Mate Selection', 'Intimacy', 'Love', 'Marital Relations', 'Marriage', 'Psychosexual Behavior', 'Relationship Termination', 'Significant Others' and 'Social Dating'.

264 There was no information on when this term was introduced. Tree information: Broader, nothing; Narrower, nothing; Related, 'Courtship Behaviour'.

265 Some thought was given as to whether to include the keyword 'passionate' (this was not a recognized search term), but initial trials using 'passionate' did not seem to identify articles not found by the search term 'love'.

266 It was not considered logistically possible to track down every article. The electronic journal databases of Auckland University, Massey University, and Waitemata health were searched. If the article looked of particular interest then non-electronic copies were ordered and reviewed.
• If it was still not clear whether the article was about romantic love it was excluded from the analysis.
• Only articles in English (unless otherwise specified) were used.

Quantitative Data
Usually, this process left a series of references (in most cases about a disease concept). The range of years in which these were published, and the number of references were noted. To make the latter figure more meaningful, it was compared with the total number of references to the search terms before they were combined with the dictionary terms/keywords 'love' and 'romance/romantic'. The idea was to both get an approximation of the relative influence of an idea (usually a disease construct), and if possible track changes in this (increasing/decreasing) over the period studied. The pros and cons of this approach are examined in the Discussion.

PsychINFO has an interesting facility, not shared by Medline, which shows the searcher how many times each article is cited in the database. While earlier articles would have more opportunity to be cited than those just published, it was considered this was still a valuable proxy measure of how influential any individual article was. If the article had five or more citations this was therefore noted.

Qualitative
For the qualitative analysis, rather than taking a highly theoretical approach, the data was analysed using a simple inductive approach similar to that outlined by David Thomas,\textsuperscript{267} in which the references were studied looking for common themes which would colour and contextualise the quantitative data.

Supplementary Evidence
In all the sections supplementary evidence from secondary sources was used to provide modern definitions of terms (recent editions of DSM and the Comprehensive Textbook of Psychiatry were used where possible), background history, and another strand of evidence to compare conclusions against. In the section on modern manifestations of morbid love there was a more systematic search for data from various textbooks:

The DSM disease classification books were searched for the disease terms of interest. DSM-I to DSM-IVR were searched using their indexes. Electronic versions of DSM-I to DSM-IV were also searched using a word finding program, which uncovered more data.

All eight editions of the Comprehensive Textbook of Psychiatry\textsuperscript{268} were searched for the disease terms of interest using the index. Volume 8 had an electronic version allowing a more thorough search.


\textsuperscript{268}This textbook is the most comprehensive in psychiatry, and during the period studied has been the standard textbook of American psychiatry, functioning almost as a companion book to the DSM with whom it shares many authors.
Other psychiatric textbooks\textsuperscript{269} and clinical psychology textbooks\textsuperscript{270} found in the


Auckland University library and the Massey University Albany library were searched for the disease terms of interest using their indexes.

The information from these searches was then combined to form conclusions with the greatest weight being given to the database searches and DSM searches (the computerised searching allowing this to be more widespread and accurate), then the Comprehensive Textbook (because of its influence in the United States and because the use of all eight editions gave a good picture of change over time), and the least weight to the idiosyncratic selection of other textbooks.

It was hoped that this combination of the sources would give a western perspective, and more specifically a perspective from the United States, on disease constructs of morbid love.

Content
Firstly, this study examined the changing scientific interest in love. In part this built on the previous chapter on the scientific history of love to give further context for the following chapters, but it also seeks to confirm a rising scientific interest in love (potentially fertile ground for conceptions of morbid love), and examined whether this science is being applied to morbid love. After trying to map a general rise in scientific interest, various scientific concepts thought to be characteristic of modern disease (taxonomy, measurement, anatomical localisation, physiology, laboratory investigation) are studied in relation to romantic love.

In the main part of the thesis, the connection between the concepts of romantic love and disease was examined. The concept of disease and its common components (symptoms, course, prognosis, treatment, and cause) were looked at first. Next, various specific disease entities were studied, starting with lovesickness and then various candidate diseases (using recognized terms from the databases dictionaries

where possible), chosen either from the secondary literature or from characteristics of the disease which suggested a connection to lovesickness. In effect each one of these is a separate study.
Results
THE SCIENCE OF ROMANTIC LOVE

Modern disease concepts are heavily influenced by scientific ideas, and in particular ideas from specific branches of science such as anatomy, physiology, laboratory investigations, taxonomy, and measurement. Increasing interest in romantic love from any of these fields may provide fertile ground for the growth of conceptions of morbid love. Concrete evidence of this idea would show up as instances where the science of love was applied directly to the investigation of morbid love.

RISING SCIENTIFIC INTEREST

Background
But before turning to these specific branches of science, we can attempt an overview. Secondary sources consistently suggest there has been a rising scientific interest in love, and specifically romantic love, beginning in the nineteen seventies.\(^{271}\) One way of investigating this is to look at how many articles are published on love for each decade in the databases.

Databases
Question: Does the scientific interest in love increase in absolute terms from the seventies on?

Medline and psychINFO were searched using the dictionary term 'love' as a major concept (not exploded). The results were gathered decade by decade.\(^{272}\) These results are presented below in chart form (the raw numbers are included in Appendix II). There was no easy way of combining this psychINFO and Medline data, so they are presented separately.

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\(^{272}\) All searches were performed in September 2006.
Question: Does the scientific interest in love increase in relative terms from the seventies on?

The results of the previous search were calculated as a percentage of the total number of references decade by decade. The results are presented below in chart form (the raw numbers are included in Appendix II).
Question: How do these changes in the interest in love compare with other psychiatric topics?

PsychINFO was searched using various dictionary terms as major concepts (not exploded). The results were gathered decade by decade and presented below in chart form.
Databases

Question: To what degree was romantic love seen as a topic of scientific enquiry during this period?

The psychINFO database was searched using the Thesaurus terms 'sciences' expanded and exploded (but excluding 'neuroanatomy' and 'neurophysiology'), combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Medline was searched using the MeSH term 'biological sciences' exploded and expanded (but excluding 'anatomy' and 'physiology') combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the science of romantic love.

This search produced six references, published in the years 1992 to 2007. One of these references is a review of another. No reference in psychINFO was cited five or more times. In all, there were three reviews of general texts on the science of romantic love, and one general text on the science of romantic love. The remaining two references were a letter reviewing the neurobiology of love and an

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275Both the psychINFO and Medline searches were done 27/06/08. To put this into context on 27/06/08 in psychINFO the Thesaurus term ‘science’ exploded and expanded (but excluding ‘neuroanatomy’ and ‘neurophysiology’) produced 28,678 references in English. On 27/06/08 in Medline the MeSH term ‘biological sciences’ exploded and expanded (but excluding ‘anatomy’ and ‘physiology’) produced 624,687 references in English.


article comparing the neural substrates of romantic love and obsessive-compulsive disorder.  

ANATOMY

Databases

Question: What level of interest was there in anatomically localising romantic love during this period?

The psychINFO database was searched using the Thesaurus terms ‘anatomy’ expanded and exploded, and ‘neuroanatomy’ expanded (it cannot be exploded), combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the MeSH term ‘anatomy’ expanded and exploded combined with the MeSH term ‘love’ in its restricted form or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the anatomical localisation of romantic love.

This search produced only two articles, one published in 1923 and the other 2004. Neither was what might be described as mainstream scientific anatomy.

One reference described a book of photographs of couples. It purported to demonstrate the ways we fall in love visually with our lover’s face, for example by ‘echoism’; an echoed shape of the upper eyelid line, the upper lip line, and the sweep of the eyebrow.

The second reference maintained that:

From the positive pole of the cardiac plexus flows out that effluence which we call

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284 Definition: ‘Conceptually broad array term referring both to the science of anatomy and the actual structure or morphology of an organism.’ Introduced in 1967. Tree information: Broader, nothing; Narrower, various anatomical regions; Related, ‘neuroanatomy’, ‘physiology’.
286 No definition. Tree information: Broader, ‘biological sciences’; Narrower, ‘neuroanatomy’ and other anatomical subjects; Related, nil significant.
287 On 20/6/08 in psychINFO the Thesaurus term ‘anatomy’ exploded and expanded gave 9,885 references in English while ‘neuroanatomy’ expanded produced 4,812 references in English. In Medline the MeSH term ‘anatomy’ exploded and expanded gave 15,735 references in English.
selfless love, love which gives its all to the beloved. ... But from the strong ganglion of the shoulders proceeds the negative circuit, which searches and explores the beloved, bringing back pure objective apprehension, not critical, in the mental sense, and yet passionately discriminative.

**PHYSIOLOGY**

**Databases**

**Question:** What was the level of scientific interest in the physiology of romantic love during this period?

The psychINFO database was searched using the Thesaurus terms 'physiology' expanded and exploded, combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Medline was searched using the MeSH term 'physiology' expanded and exploded combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the physiology of romantic love.

This search produced 11 references published from 1972 to 2007, with the

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294 Definition: 'Conceptually broad term referring both to a branch of biological science and the functions and processes of living organisms.' Introduced in 1967. Tree information: Broader, nil; Narrower, many physiological processes including 'neurophysiology'; Related, many branches of biological science including 'anatomy' and 'histology'.

295 Definition: 'The science which treats of the functions of the living organism and its parts, and of the physical and chemical factors and processes involved. (Dorland, 27th ed)'. Tree information: Broader, 'biological sciences'; Narrower, 'neurophysiology' and other physiology topics; Related, nil.

296 Both the psychINFO and Medline databases were searched on 26/6/08.

297 To put this in context on 26/6/08 in psychINFO the Thesaurus term 'physiology' exploded and expanded gave 35,172 references in English. On 27/6/08 Medline the MeSH term 'physiology' exploded and expanded gave 86,412 references in English.

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majority since 2000. Two of these refer to work by the same author and appeared to cover largely the same material, and two were chapters in the same book. One reference in psychINFO which had five citations described research in which the authors hypothesized that romantic love served a commitment-related function, and investigated, among other things, its link with the hormone oxytocin.

The references can be divided up into those discussing the physiological manifestations of romantic love which have been known about since antiquity, such as increased heart rate or decreased sleep; those investigating hormonal changes in romantic love; and those about the neurophysiology of romantic love, which appear to have an overlap with neuroanatomy (which may explain why there was an absence of references categorised as being about the neuroanatomy of romantic love). The primary tool of investigation appeared to be functional magnetic resonance imaging (MRI, see Laboratory Tests). One reference looked at the neurophysiology of stalking (also discussed under Laboratory Tests).

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LABORATORY TESTS

Databases

Question: To what degree were laboratory tests (in particular biological tests) used during this period to investigate romantic love?

As there was no satisfactory global term in the psychINFO Thesaurus, a combination of Thesaurus terms were used — 'neuroimaging' exploded and expanded, 'evoked potentials' exploded and expanded, 'autopsy' expanded, 'biological markers' expanded, 'medical diagnosis' expanded and exploded, 'biochemistry' expanded and exploded, 'body fluids' expanded and exploded, 'neurotransmitters' expanded and exploded, 'experimental methods' expanded and exploded, 'observational methods' expanded, 'genetic linkage' expanded and exploded, 'hormones' expanded and exploded.

306 Definition: ‘Conceptually broad term referring to techniques that provide in-depth portraits of regional brain structure, activity, and function. The techniques involve extensive computer analysis and are often used for the assessment and diagnosis of brain impairment.’ This term was introduced in June 2003. Tree information: Broader, nil; Narrower, ‘encephalography’ (which in turn is broader than ‘electroencephalography’), ‘magnetic resonance imaging’, ‘roentgenography’, ‘tomography’; Related, ‘computer assisted diagnosis’, ‘evoked potentials’.

307 Definition: ‘In the brain and central nervous system, a neuroelectrical response that is evoked by external somatosensory, auditory, or visual stimulation.’ In May 2006, this term replaced the discontinued term ‘cortical evoked potentials’. Cortical evoked potentials was removed from all records containing it and replaced with ‘evoked potentials’. Tree information: Broader, ‘electrical activity’; Narrower, various evoked potentials; Related, ‘neuroimaging’.


313 Definition: ‘Chemical substances, synthesized and released by nerve cells, or glandular hormones that excite or inhibit other nerve, muscle, or gland cells by producing a brief alteration in the postsynaptic membrane of the receiving cell. Use a more specific term if possible.’ Introduced in 1985. Tree information: Broader, nothing; Narrower, various neurotransmitters; Related, various biological chemicals.

314 Definition: ‘System of scientific investigation, usually based on a design and carried out under controlled conditions with the aim of testing a hypothesis, in which one or more variables is manipulated’. Introduced in 1967. Tree information: Broader, ‘empirical methods’, Narrower, ‘quasi experimental methods’, ‘stimulus presentation methods’; Related, ‘experimental design’ and ‘quantitative methods’.

315 Definition: ‘In research, any techniques used in the intentional examination of persons or processes in natural or manipulated settings for the purpose of obtaining facts or reporting conclusions’. Used for ‘field experiment’. Introduced in 1967. Tree information: Broader, ‘empirical methods’; Narrower, nothing; Related, nothing significant.

316 Definition: ‘Linkage of genes at different loci on the same chromosome and analysis of how genes are inherited together.’ Introduced in 1994. Tree information: Broader and Narrower, nothing; Related, many genetic terms.

317 Definition: ‘Conceptually broad term referring both to the science of heredity and the biological process of transmission of characteristics from progenitor to offspring’. Introduced in 1967. Tree information: Broader, nothing; Narrower, various genetic terms; Related, various genetic terms.
These were combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the MeSH terms ‘investigative techniques’ or ‘diagnostic tests and procedures’ expanded and exploded combined with the MeSH term ‘love’ in its restricted form or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the laboratory investigation of romantic love, looking in particular for biological laboratory techniques. Laboratory testing using batteries of questions (but not love scales) to investigate romantic love were also accepted.

This search produced fifteen references published from 1994 to 2008 with the

318 No definition. Introduced in 1967. Tree information: Broader, nothing; Narrower, various different hormones; Related, nothing of significance.

319 Definition: ‘Investigative techniques used in pre-clinical and clinical research, epidemiology, chemistry, immunology, genetics, etc. They do not include techniques specifically applied to “diagnosis; therapeutics”; anaesthesia and analgesia; ”surgical procedures, operative”; and ”dentistry”’. Introduced in 1998. Tree information: Broader, nil; Narrower, many investigative procedures, including ‘clinical laboratory techniques’; Related, nil significant.

320 Definition: ‘Methods, procedures, and tests performed to diagnose disease, disordered function, or disability.’ Introduced in 1998, previously indexed under diagnosis 1966-1997. Tree information: Broader, ‘diagnosis’; Narrower, many diagnostic procedures; Related, nil significant.

321 The searches of both psychINFO and Medline databases were done on 30/6/08.

322 To put this into context on 7/7/08 in psychINFO this combination of Thesaurus terms exploded and expanded produced 119,524 references in English. In Medline on 30/6/08 the MeSH term ‘investigative techniques’ exploded and expanded produced 6,307,307 references in English while ‘diagnostic tests and procedures’ produced 2,338,741 references.


numbers of references increasing over time. Several of these were by groups of the same authors, suggesting ongoing research by a team. One such team studied event-related evoked potentials in romantic love, another team the biochemistry of romantic love, another team used neuro-imaging to study people in love, whilst another team had a more eclectic mix of investigative techniques.

The psychINFO references included a study on genetics with twenty-eight citations; a study on brain metabolites with six citations; two studies by the same research team, one on hormonal changes with fifteen citations and another examining serotonin levels with twenty-five citations, and finally there were forty-four citations for a functional MRI study -- of particular note given how recently this article was published.

Many studies favoured newer technologies. There were four studies utilising the neuroimaging technique functional MRI, for example:


The activity in the brains of 17 subjects who were deeply in love was scanned using fMRI, while they viewed pictures of their partners, and compared with the activity produced by viewing pictures of three friends of similar age, sex and duration of friendship as their partners. The activity was restricted to foci in the medial insula and the anterior cingulate cortex and, subcortically, in the caudate nucleus and the putamen, all bilaterally. Deactivations were observed in the posterior cingulate gyrus and in the amygdala and were right-lateralized in the prefrontal, parietal and middle temporal cortices. The combination of these sites differs from those in previous studies of emotion, suggesting that a unique network of areas is responsible for evoking this affective state. This leads us to postulate that the principle of functional specialization in the cortex applies to affective states as well.\textsuperscript{334}

These also included one study that used MRI to study women's orgasms and whether they were affected by romantic love.\textsuperscript{335}

Some studies used visual evoked potentials that showed changes when pictures of the beloved were viewed.\textsuperscript{336} Other research used blood tests to measure various biochemicals: hormones,\textsuperscript{337} neurotrophins,\textsuperscript{338} serotonin changes in platelets thought to be reflecting brain changes,\textsuperscript{339} and metabolites of neurochemicals (for a change, utilising subjects prone to fall in love rather than actually in love at the time).\textsuperscript{340}

The digoxin status and neurotransmitter patterns were studied in individuals with a predilection to fall in love… 15 normal healthy individuals (aged 30-40 yrs) who fell in love and had nonarranged love marriages, and 15 normal healthy individuals (aged 30-40 yrs) who had never fallen in love in their life and had conventional arranged Indian marriages. In individuals with a predilection to fall in love there was decreased digoxin synthesis, increased membrane Na++K+ ATPase activity, decreased tryptophan catabolites (serotonin, quinolinic acid, and nicotine), and increased...
tyrosine catabolites (dopamine, noradrenaline, and morphine).³⁴¹

Another study isolated genes associated with specific neurochemicals and linked them to aspects of romantic love.³⁴²

More old-fashioned techniques, such as galvanic skin response,³⁴³ electroencephalograms (although this was in a historical paper),³⁴⁴ and questionnaires,³⁴⁵ were employed in other research.

No studies used laboratory techniques to measure morbid love, though one paper identified but not included in the analysis above (as it was a discussion of research rather than research itself), speculated on functional MRI studies of romantic love and how the findings might apply to stalkers.³⁴⁶ Two studies compared laboratory findings for romantic love to those for mental illness -- one likening the serotonin changes in platelets in romantic love, with that in obsessive compulsive disorder;³⁴⁷ and another the sleep disturbances in romantic love, with those in hypomania.³⁴⁸

**TAXONOMY**

Strictly speaking, the taxonomies³⁴⁹ discussed below are not pathological typologies, but rather taxonomies of normal love. However, many of them include classifications that appear pathological. Moreover, they are all classifications of love with romantic love as a subcategory, rather than classifications of just romantic love.

There are two particularly well-known typologies of love. In the seventies, J.A. Lee, a sociologist, developed his 'Colours of Love' typology. In this curious approach each type of love is associated with a primary or secondary colour. One classification subtype -- the manic -- sounds a great deal like a type of lovesickness, with obsessions, jealousy, and fear of rejection, though Lee does not treat this as pathological.³⁵⁰ In 1986 Robert J. Sternberg, in another influential typology (often

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³⁵⁰Taxonomy is the practice and science of classification, while Nosology is a branch of medicine that deals with classification of diseases.


called the Triangular Theory of Love), proposed that different forms of love involved distinct combinations of three components: intimacy, passion, and commitment. Again, some of these combinations, ‘fatuous love’ for example, while not portrayed as pathological, seemed at the very least unpleasant and dysfunctional.\textsuperscript{351}

**Databases**

Question: What was the level of interest in the typologies of love that included romantic love during this period?

The psychINFO database was searched using the Thesaurus terms 'taxonomies\textsuperscript{352} expanded and 'psychodiagnostic typologies\textsuperscript{353} expanded and exploded, combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Medline was searched using the MeSH term 'classification\textsuperscript{354} expanded and exploded combined with the MeSH term 'love' restricted or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed.\textsuperscript{355} The abstracts of these references were reviewed looking for typologies that included the classification romantic love (or an equivalent concept).

This search produced ten\textsuperscript{356} references, with the years of publication ranging from 1977 to 2007.\textsuperscript{357} Interestingly, none of these were from Medline, suggesting the classification of love was much more a preoccupation of psychologists than medical doctors, and therefore possibly a topic viewed as non-pathological. Though these articles are written by a number of different authors, this may not indicate a wide

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\textsuperscript{352}No definition. Introduced in 1973. Tree information: nothing Broader or Narrower; Related, 'ontologies' and 'psychodiagnostic typologies'.
\textsuperscript{353}Definition: 'Systematic classification of mental, cognitive, emotional, or behavioral disorders'. Introduced in 1967. Tree information: nothing Broader; Narrower, 'DSM', 'ICD' and 'Research Diagnostic Criteria'; Related, 'taxonomies' and various categories relating to diagnosis.
\textsuperscript{354}Definition: 'The systematic arrangement of entities in any field into category classes based on common characteristics such as properties, morphology, subject matter, etc.' Tree information: Broader, 'information science'; Narrower, 'phylogeny'; Related, nothing significant.
\textsuperscript{355}Both the psychINFO and Medline databases was searched on 9/7/08.
\textsuperscript{356}To put this in context on 9/7/08 in psychINFO the Thesaurus terms 'taxonomies' expanded and 'psychodiagnostic typologies' expanded and exploded produced 13,207 references in English while in Medline the MeSH term 'classification' expanded and exploded produced 69,082 references in English.
spread of ideas. Three references come from the same book\textsuperscript{358} -- a general text on the science of love -- another reviews this book;\textsuperscript{359} another reference comes from a previous version of this text,\textsuperscript{360} and there is an additional article by the one of the editors of these two texts.\textsuperscript{361} The majority of these references referred to general discussions of typologies of love;\textsuperscript{362} however, three articles propose specific typologies,\textsuperscript{363} including John Lee's Colours of Love.\textsuperscript{364}

**LOVE AS SOMETHING MEASUREABLE (QUANTIFICATION)**

**Introduction**

The development and validation of instruments to assess aspects of love began in the early nineteen seventies. In general these were devised to help differentiate between types of love (see Typologies), rather than measure romantic love as such.

There are a number of good reviews of these love scales.\textsuperscript{365} One review in 2002 by

Myers and Shurts, looking for instruments primarily about love, initially found nineteen scales. Many had been used only by their creators, and once these were excluded, this left nine influential instruments. Of these Hendrick and Hendrick's Love Attitudes Scale, Hatfield and Sprecher's Passionate Love Scale and Sternberg's Triangular Love Scale were all identified as having been used in multiple studies. Rubin's early measure, the Rubin Love Scale was the standard against which subsequent scales were usually measured. Other authors identify these four scales as particularly important.

Rubin Love Scale

The first researcher to develop an objective psychological scale to measure love was Rubin. He built on the ideas of Freud and Fromm, but applied an empirical approach using novelists' and scientists' descriptions of friendship and love. He assumed that romantic relationships were characterised by both love and liking, while platonic friendships were characterised by liking only. He invented the Love Scale and the Liking Scale to measure the amount of people's love and liking for their partners. Despite this aim, both scales have been regarded by other researchers as the measurement tools for companionate love. Some have also criticized the scale for de-emphasising sexual desire towards a romantic partner.

Passionate Love Scale

Hatfield, building on Maslow's idea of the hierarchy of human needs, wished to build a scale differentiating passionate love and companionate love. The Passionate Love Scale measures only the former, with most researchers using other scales to measure companionate love. The items on the scale would appear to capture elements compatible with lovesickness -- obsession, jealousy, idealisation, emotions on a 'roller coaster', and despair if the beloved left.

Sternberg's Triangular Love Scale

Two versions of Sternberg's Triangular Love Scale were created, based on his
Triangular Theory of Love: one created by Sternberg himself, and another by Acker and Davis. The former, consists of three subscales, with the 'Passion' subscale containing items consistent with romantic love.

**Love Attitudes Scale (LAS)**

The most popular multidimensional measurement approach to love is based upon Lee's theory of love styles. An early effort was the SAMPLE profile, but since the introduction of the Love Attitudes Scale (LAS) the SAMPLE has been rarely used. The LAS measures all six of Lee's styles, of which the Eros style (passionate love) appears to measure romantic love (sexualised, and idealised), while the Mania style (possessive and dependent love) appears to tap into typical ideas of lovesickness (insomnia, poor concentration, suicidal thoughts on breakup).

All these scales could potentially be used to measure intensity of feelings and changes to feelings of romantic love.

**Attachment Based Scales**

In 1987 C. Hazan and P. Shaver, having proposed that romantic love was modelled to some degree on infant attachment and love towards the parent, developed a scale to measure this -- the Adult Attachment Questionnaire. This scale, however (and most subsequent scales developed from it), appeared to be measuring adult attachment (closer conceptually to companionate love), rather than romantic love itself. This was because the developers assumed romantic love was simply a surface manifestation of underlying attachment processes.

**Databases**

Question: What was the level of interest in the development or use of scales measuring love (including romantic love) during this period?

The psychINFO database was searched using the Thesaurus terms 'measurement' expanded and exploded, 'statistics' expanded, and 'statistical analysis' expanded and exploded.
combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Medline was searched using the MeSH terms 'psychometrics', expanded, 'psychiatric status rating scales', expanded and exploded, and 'statistics as a topic', expanded and exploded, combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these articles were reviewed looking for any reference in the abstract to the development or use of scales measuring love, especially romantic love (or an equivalent concept). Scales measuring attachment as a proxy measure of love were excluded.

This search produced a total of fifty-six references, with publication dates ranging from 1970 to 2007, and consistent levels of publishing since the early nineteen
eighties. There were six references by the authors of the Love Attitudes Scale,\footnote{Gloria M. Borrello, Bruce Thompson, 'A Replication Bootstrap Analysis of the Structure Underlying Perceptions of Stereotypic Love', \textit{Journal of General Psychology}, 116:3 (July 1989), pp. 317-27.} and many of the other authors had written more than one article.\footnote{Clyde Hendrick, Susan S. Hendrick, 'Styles of Romantic Love', in \textit{The New Psychology of Love}, Robert J. Sternberg, Karin Weis (eds), New Haven: Yale University Press, 2006, pp. 149-70.}


Keith E. Davis, 'What Attachment Styles and Love Styles Add to the Understanding of Relationship Commitment and Stability', in \textit{Handbook of Interpersonal Commitment and Relationship}
Citations
There were fourteen articles with five or more citations in psychINFO. The most quoted authors were Clyde Hendrick and Susan Hendrick, who co-authored two general discussions of the measurement of love (cited five times and fifty-five times), research on variations of the Love Attitudes Scale (cited thirty-five and sixteen times), as well as the original research for the Love Attitudes Scale (cited 396-397, 398-399).
159 times -- and if this seems a lot then Hazan and Shaver's 1987 article looking at development of an attachment scale that related to romantic love was cited 1268 times. Other multiply cited articles relating to the Love Attitudes Scale included two validation studies (one cited ten times, the other sixteen times), a study looking at the relationship between the scale results and self representations (cited seven times), and another on the relationship between the scale and personality traits (cited six times). There were three studies validating Sternberg's Triangular Love Scale (cited nine, eleven, and forty-six times). The development of the Romantic Beliefs Scale was cited thirty-five times. A study examining whether scores on Rubin's Love Scale were affected in men by erotica was cited twelve times.

Other
Direct reference in the abstracts to specific scales was most frequent for the Love Attitudes Scale with twenty references, followed by Rubin's Love and Liking

Scales referenced eight times, then Sternberg's Triangular Love Scale with five references, and the Passionate Love Scale referenced four times. No other scale


had more than two references.

Possibly because of the way the search was constructed, the vast majority of the references were to general discussions of love scales; or to articles concerned with the creation, comparison, validation and further development of the scales. But the scales were also used to investigate: sex/sexual aggression/erotica;\(^4\) the link between emotion and bodily changes;\(^5\) kinship/relationships;\(^6\) how a scale correlates with gender, loneliness and love status;\(^7\) personality traits;\(^8\) and self representations.\(^9\)

Only one article used a scale (the Love Attitudes Scale) as part of the biological investigation of love.\(^1\)

None of these standard love scales was used to measure pathology and in particular morbid love. Only one scale was specifically designed to measure a pathological construct -- love addiction.\(^2\)

To further investigate whether there was a link between the scales and morbid love,

all the articles which cited Hendrick and Hendrick’s original research on the Love Attitudes Scale were identified. Among these 159 references were two studies which used the scale to measure the reaction to stressful events in parallel to measures of Post-Traumatic Stress Disorder; another which looked for connections between love styles and eating disorders; three studies looked at the link between love styles and violence in relationships; with one of the latter also mentioning stalking; and finally, one author examined ‘the darker side of love relationships’, including unrequited love, and obsession (though it was not clear whether she connected this to the love scales).

**CONCLUSION TO THE SCIENCE OF LOVE**

On balance, the database searches appeared to agree with secondary sources that there was a small but growing scientific interest in romantic love.

Bearing in mind the problems with the databases definitions of love discussed previously, the charts appear to give strong backing to the contention that there has been a rise in scientific interest in love over the last 50 years, both absolute and relative, though it is by no means clear from this data that this is best seen as a sudden rise since the nineteen seventies. The final chart shows that despite this increase, the topic is still one of relative unimportance (though note the puzzling lower number of references to ‘sex’).

Most research has been into the classification and measurement of love. There has been consistent interest in scales measuring love (and romantic love as a subcategory) since the early nineteen eighties. By far the most popular of these has been the Love Attitudes Scale based on John Lee’s Colours of Love classification. Of the more biological ways of investigating romantic love, functional MRI, an investigative technique that blurs the boundary between anatomy and physiology, seemed to be gaining in popularity. However, there does not appear to be much cross-fertilisation in the research using the various techniques of measuring and investigating romantic love.

Even more striking, almost none of the mainstream biological investigations and measurement scales are being used to investigate/measure morbid love. One could go so far as to say that morbid love is not currently the focus of scientific enquiry.

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LOVE AS A DISEASE

Introduction
One of the key questions of this thesis is whether some manifestation of romantic love is conceptualised as a disease in modern psychiatric literature, and if so, what disease. Diseases of romantic love going under various diagnostic names, including lovesickness, will be described in the latter part of this section; but before looking at specific disease entities we can use the databases to see if modern concepts of disease overlap with modern concepts of romantic love. We can also look for an overlap between conceptions of romantic love and the traditional medical descriptors of a disease -- characteristics (symptoms), names (diagnoses), life expectancies (course), anticipated outcome (prognoses), recommended treatment, and a cause (aetiology).

Databases
Question: What was the connection between ideas of disease and romantic love during this period?

The psychINFO database was searched using the Thesaurus terms 'disorders' or 'health complaints' or 'syndromes' in their expanded and exploded forms (in psychINFO there is no 'disease', 'illness', or 'psychological disease'), combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Medline was searched using the MeSH terms 'pathological processes' expanded and exploded (there is no 'illness' or 'disorder' in Medline) combined with MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed.

This search produced 18 articles, published from 1974 to 2007.

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428 This appears a somewhat ambiguous term with a definition at variance with the historical note. Definition: 'Conceptually broad term referring primarily to physical illness. Also used when particular disorders are not specified. Use a more specific term if possible. For general discussions of health impairment consider also the term "health".' Introduced in 1967. History note: "The term "handicapped" was also used to represent this concept from 1967-1996, and "disabled" was used from 1997-2000. In 2000, "disorders" replaced the discontinued and deleted terms "disabled" and "handicapped". "Disabled" and "handicapped" were removed from all records containing them and replaced with "disorders"." Tree Information: Broader, nothing; Narrower, many disorders including 'mental disorders'; Related, many different categories.

429 No definition. Introduced in 1997. Tree information: nothing Narrower or Broader; Related, 'disorders' and 'health'.

430 No definition. Introduced in 1973. Tree Information: Broader, nothing; Narrower, various syndromes; Related, includes 'disorders' and 'mental disorders'.

431 Definition: 'The abnormal mechanisms and forms involved in the dysfunctions of tissues and organs.' Year introduced: 1998. Tree information: Broader, 'pathological conditions, signs and symptoms'; Narrower, 'disease', 'syndrome'; Related, 'signs and symptoms'.

432 Both the psychINFO and the Medline databases were searched 26/3/08.

433 To put this in context on 26/3/08 a search of psychINFO database using the Thesaurus search terms 'disorders' or 'health complaints' or 'syndromes' in their expanded forms found 8,695 articles. A search of Medline 2/4/08 using the MeSH terms 'pathological processes' in its expanded and exploded form gave 1,541,336.


The most striking feature of these articles was that the vast majority were either exclusively or mainly about delusional love in the form of erotomania or de Clérambault's syndrome. Apart from this, there was one reference linking love

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M.H. Hollender, ‘Erotomania or De Clérambault Syndrome’, Archives of General Psychiatry, 32:12 (December 1975), pp. 1574-76.


with obsessions from a psychoanalytic perspective,\textsuperscript{436} and two which concentrated on modern forms of lovesickness:\textsuperscript{437}

Presents the case of a 44-yr-old man who suddenly left his wife for a new coworker. Although he had a sense of having lost control and felt guilty and deeply distressed, he felt impelled to take the action he had. The present author, based on 6 similar cases, observes that the circumstances described might be indicative not of the state of well-being that is the usual concomitant of falling in love but a state of considerable distress in which falling in love is both a cause and a manifestation of disorder. It is suggested that falling in love may have some characteristics in common with the affective disorders and in some circumstances may require skilled clinical management.\textsuperscript{438}

Finally, there was one reference examining historical lovesickness.\textsuperscript{439}

**SYMPTOMS**

**Databases**

Question: To what extent were the symptoms of romantic love a topic of enquiry during this period?

The psychINFO database was searched using the Thesaurus term 'symptoms'\textsuperscript{440} in its expanded and exploded form, combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. The Medline database was searched using the MeSH term 'signs and symptoms'\textsuperscript{441} expanded and exploded combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed.\textsuperscript{442} The abstracts of these references were reviewed looking for the concept of the symptoms of romantic love.

This search produced four\textsuperscript{443} articles. Three of these described the use of psychometric love scales (which were discussed in the Science of Romantic Love) in their research into other disease entities, leaving only one article which: 'Describes the

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M.H. Hollender, ‘Erotomania or De Clérambault Syndrome’, *Archives of General Psychiatry*, 32:12 (December 1975), pp. 1574-76.


No definition. Introduced in 1967. Tree Information: Broader, nothing; Narrower, gives a wide range of symptoms; Related, gives mostly diseases.

Definition: ‘Clinical manifestations that can be either objective when observed by a physician, or subjective when perceived by the patient.’ Introduced in 1998. Tree Information: Broader, ‘pathological conditions, signs and symptoms’; Narrower, various signs and symptoms; Related, nil.

Both the psychINFO the Medline databases were searched 19/5/08.

To put this in context on 19/5/08 in psychINFO the Thesaurus term 'Symptoms' expanded produced 73,344 references in English, while in Medline the MeSH term 'Signs and symptoms' expanded and exploded gave 931,370 references.
COURSE AND PROGNOSIS

The close connection between the course (the expected disease course in the average patient), and prognosis (the disease course expected in a specific patient) is indicated by the definitions:

Psychinfo: 'Disease course: Stages or progression of physical or mental disorders. Compare "prognosis".' and 'Prognosis: Prediction of the course, duration, and outcome of a disorder. Compare "disease course".'

Medline: There is no 'course' in Medline but there is: 'Prognosis: A prediction of the probable outcome of a disease based on an individual's condition and the usual course of the disease as seen in similar situations.'

Databases
Question: To what extent were the concepts of prognosis and disease course used in relation to romantic love during this period?

The psychINFO database was searched using the Thesaurus terms 'prognosis' and 'disease course' in their expanded forms (neither can be exploded), combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. The Medline database was searched using the MeSH term 'prognosis' combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concepts of prognosis or disease course relating to romantic love as a disease.

This search produced five articles published between the years 1978 to 2007.

Barbara M. Pizer, 'Unrequited Love', Medical Aspects of Human Sexuality, 19:12 (December 1985), pp. 84A-84G.


There were no articles from psychINFO and therefore no multiple citations.

One article discussed the course of the homeopathic treatment of (among other things) 'depression with suicidal ideation after disappointed romantic love'\(^{451}\). One psychoanalytic article discussed the treatment outcome of a case of unrequited love.\(^{452}\) Three articles discussed the course of delusional love (erotomania and de Clérambault’s).\(^{453}\)

**TREATMENT**

Modern secondary sources do not commonly mentioned the treatment of morbid love, however, Tallis recommends treatment of lovesickness with cognitive therapy and medications,\(^{454}\) while Fisher\(^{455}\) looking at ways of dealing with the problems of romantic love, suggests behavioural treatment, twelve-step treatment, psychotherapy, and taking anti-depressants.

**Databases**

Question: To what degree were the concepts of treatment or therapy applied to romantic love during this period?

The psychINFO database was searched using the Thesaurus term ‘treatment’\(^{456}\) in its expanded and exploded form combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. In Medline there is no MeSH term ‘treatment’. Therefore Medline was searched using the MeSH terms ‘therapeutics’\(^{457}\) and ‘psychotherapy’\(^{458}\) expanded and

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\(^{450}\)To put this number in context in psychINFO on 4/6/08 the expanded forms of 'prognosis' or 'disease course' produced 8,579 articles in English, while in Medline 'prognosis' in its expanded form identified 492,624 articles in English.


\(^{453}\)W.C. Myers, R. Ruiz, 'Aripiprazole And Psychotherapy For Delusional Disorder, Erotomanic Type', *Journal of the American Academy of Child and Adolescent Psychiatry*, 43:9 (September 2004), pp. 1069-70.


\(^{456}\)Definition: 'Conceptually broad term referring to psychological or physical measures designed to ameliorate or cure an abnormal or undesirable condition.' Year introduced: 1967. Tree information: Broader, nothing; Narrower, a wide range of treatments including 'psychotherapy' and 'physical treatment methods'; Related, a wide range of concepts.

\(^{457}\)Definition: 'Procedures concerned with the remedial treatment or prevention of diseases.' Used for: Treatment; Therapeutic; Treatments. Tree information: Broader, nothing; Narrower, various treatments; Related to 'diagnosis'.

\(^{458}\)Definition: 'A generic term for the treatment of mental illness or emotional disturbances primarily by verbal or nonverbal communication.' Tree information: Broader, 'behavioural disciplines and activities'; Narrower, a wide range of psychological therapies, as well as more idiosyncratic treatments.
exploded combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the treatment of morbid love.

The majority of these references were about love as a positive therapy. There were only twenty-one references published from 1965 to 2007 which looked at the treatment of morbid love. Only one article had five or more citations (five).

such as 'aromatherapy' and 'dance therapy'; Related, 'neurolinguistic programming' and 'sensory art therapy'.

Both the psychINFO and the Medline databases were searched on 4/6/08.

To put this in context on 4/6/08 in psychINFO the Thesaurus term 'treatment' expanded and exploded produced 138,596 references in English, while in Medline 4/6/08 the MeSH term 'therapeutics' exploded and expanded gave 1,642,994 references in English and on 20/6/08 the term 'psychotherapy' exploded and expanded gave 94,230 references in English.

This article conceptualised morbid love as love addiction, and chiefly recommended Rational Self-counselling -- a relative of Rational Emotional Therapy and Cognitive Behaviour Therapy, which utilised thought restructuring and changing behaviours.

There were various conceptions of morbid love from traditional lovesickness (in the historical articles), to love addiction, to erotomania, to stalking, to hypersexuality, to obsessional thinking, to less clearly conceptualised reactions to disappointment in love.

Treatments recommended included the traditional (outlined in detail in the History of Lovesickness), but otherwise could be divided, with a few exceptions, into medication for erotomania; and various forms of psychotherapy (psychoanalysis, 1991).

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transactional analysis,

rabional self-counselling,

twelve-step) for everything else.

One interesting exception was a reference to the homoeopathic treatment with Aurum muriaticum natronatum for the effects of 'romantic disappointment'.

CAUSE/AETIOLOGY

Databases

Question: To what extent were the ideas of aetiology or causality applied to romantic love during this period?

The psychINFO database was searched using the Thesaurus terms 'etiology' and 'causality' in their expanded forms (they cannot be exploded), combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. 'Cause' is not a recognized term in MeSH, and 'etiology' is only a subheading, which cannot be combined with 'love'. Therefore Medline was searched using the keywords 'aetiology' and 'etiology' combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for the concept of the aetiology or underlying cause of morbid love.

This search produced six references published between 1978 and 2002, none of


Definition: 'Study of the causes and origins of psychological or physical conditions'. Used for the science itself or the specific etiological findings and processes. Introduced in 1967. 'Tree Information: Broader, nothing; Narrower, nothing; Related, 'causality', 'mental disorders' and 'physical disorders'.'

Definition: 'The relationship of causes to their effects.' This term was introduced in August 2005.

'Tree Information: Nothing Broader or Narrower; Related, 'causal analysis'.

Definition: 'Used with diseases for causative agents including micro-organisms and includes environmental and social factors and personal habits as contributing factors. It includes pathogenesis (sub-heading).'

Both the psychINFO and the Medline databases were searched 4/6/08.

To put this in context on 4/6/08 in psychINFO the Thesaurus terms 'etiology' and 'causality' expanded and combined produced 16,454 references in English, while in Medline the combined MeSH keywords 'aetiology' and 'etiology' gave 1,229,149 references in English.
which were cited five or more times. These all conceptualised morbid love as delusional erotomania.\textsuperscript{482} The cause of erotomania was usually seen as either secondary to another psychiatric illness\textsuperscript{483} or biological in nature.\textsuperscript{484} One reference emphasised psychodynamic causes.\textsuperscript{485}

**Conclusion**

As discussed in later sections, over the last fifty years of the twentieth century in the databases, and in particular in Medline, when the concepts of romantic love and disease were combined there was a strong association with delusional love or erotomania. There was little connection, on the other hand, between the various descriptors of disease and romantic love, and what there was conceptualised morbid love as erotomania or love addiction.

\textsuperscript{481}N. Kennedy et al., 'Erotomania Revisited: Clinical Course and Treatment', *Comprehensive Psychiatry*, 43:1 (January-February 2002), pp. 1-6.


\textsuperscript{482}N. Kennedy et al., 'Erotomania Revisited: Clinical Course and Treatment', *Comprehensive Psychiatry*, 43:1 (January-February 2002), pp. 1-6.


LOVESICKNESS

Introduction
Secondary sources suggest that lovesickness as a diagnostic name for a disease entity had fallen out of favour at least by the early twentieth century. 486

Databases
Question: What disease concepts during the period of the study went under the diagnostic name 'lovesickness', or its cognates? 487

A search was made in psychINFO using the keywords 'lovesick' or 'love sick' or 'lovesickness' or 'love sickness' or 'morbid love' or 'erotic melancholy' or 'amor hereos' (there was no Thesaurus term for 'lovesickness'). Then a search was made in Medline using the keywords 'lovesick' or 'love sick' or 'lovesickness' or 'love sickness' or 'morbid love' or 'erotic melancholy' or 'amor hereos' (there was no MeSH term for 'lovesickness'). The results of these searches were combined and double-ups removed. 488 In this search no references were excluded so that all the concepts associated with the words could be studied.

Once double ups were removed, this search produced 36 references 489 (although two

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487 Except erotomania which is examined separately.
488 The psychINFO database was searched 6/5/08, while the Medline database was searched 9/5/08.
articles by the same authors followed each other in the same journal \(^{490}\)). The articles ranged in date of publication from 1943 to 2006. All were identified using the key words 'lovesick', 'lovesickness' or variations of these words. \(^{491}\) One author had two articles. \(^{492}\) Four articles were by another author, Glen Gabbard, \(^{493}\) and one article


Ronald M. Sabatelli, 'Locus of Control, Locus of Control Differences, and Quality of Relationship in Married Dyads', *Psychological Reports*, 58:3 (June 1986), pp. 939-45.


Ronald M. Sabatelli, 'Locus of Control, Locus of Control Differences, and Quality of Relationship in Married Dyads', *Psychological Reports*, 58:3 (June 1986), pp. 939-45.


used that author's concepts. Gabbard also had the article with the most citations \(^{494}\) (nineteen) and another article with five citations. \(^{495}\) There were two other abstracts with five citations: one a psychodynamic article which made only a passing mention of lovesickness, \(^{496}\) and the other a historical article. \(^{497}\)

Glen Gabbard, the most prominent author in this field, used the term lovesickness to describe a problem affecting psychotherapists who had sexual relationships with their patients because they were, or believed they were, in love with the patient. Gabbard took a psychodynamic approach to this lovesickness in the therapist, and therefore it is not surprising that he uses the word lovesickness to refer to a condition which is as much about sex as love. The love itself appears a fairly broad concept -- a mixture of romantic love and companionate love:

Most therapists who become sexually involved with patients are either predatory or lovesick. In one survey of psychiatrists..., \(^{498}\) 65% of those who had been in a sexual relationship with a patient described themselves as being in love with the patient... The most common scenario is that of a middle-aged male therapist who falls in love with a much younger female patient while he is experiencing divorce, separation, disillusionment with his own marriage, or the loss of a significant person in his life... He may begin to share his own problems with his patient and present himself in psychotherapy sessions as needy and vulnerable. This role reversal is a common precursor to sexual transgressions. ...Both therapist and patient are refinding forbidden objects from the past, and the therapist colludes in an enactment rather than interpreting the unconscious wish to repeat past trauma, all under the guise of "true love."... Just as Narcissus fell in love with his own image in the water, these therapists are infatuated with an idealized reflection of themselves... Often these therapists will view the relationship as having transcended transference or countertransference. They may view themselves and the patient as "soulmates" who were destined to find each other and just happened to have done so in the context of a psychotherapy relationship. The love is regarded as so extraordinary that mundane ethical codes are irrelevant. \(^{499}\)

Eleven of the articles (1985-2001) followed Gabbard in using the term lovesickness to describe a therapist who breaks ethical boundaries for love. \(^{500}\) Perhaps it is not

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surprisingly therefore, that when looking at the Thesaurus and MeSH terms used to categorise each of these abstracts, we find that only seventeen used 'love', none 'romance' (nor did this word turn up as a keyword), compared with thirteen abstracts with terms related to sex.

The diagnostic label 'love-sick' was also a term used to describe the female side of a dysfunctional married couple who felt she lacked the love and affection of her husband.\textsuperscript{500} This concept was found in five articles (1959-1991).\textsuperscript{501} Two of these articles\textsuperscript{502} tried to measure the concept using a love sickness scale -- the Ryder Lovesickness Scale.

Ryder's (1973) Lovesickness Scale was used to measure a specific type of marital complaint: Namely that one's spouse is not attentive enough or is not adequately loving.\textsuperscript{503}

There were also nine references looking at lovesickness from a historical perspective,\textsuperscript{504} three looking at modern concepts which were similar,\textsuperscript{505} and two

\begin{itemize}
\item C. Quadrio, 'Sex and Gender and the Impaired Therapist', \textit{Australian and New Zealand Journal of Psychiatry}, 26:3 (1992), 346-63.
\item Thomas Schill, Jeff Harsch and Katie Ritter, 'Countertransference in the Movies: Effects on Beliefs about Psychiatric Treatment,' \textit{Psychological Reports}, 67:2, (October 1990), 399-402.
\item Robert L. Beck, 'Warming up to a Cold-Sick Spouse', \textit{American Journal of Psychotherapy}, 45:2 (April 1991), pp. 221-30.
\item Frank Tallis, 'Crazy for You', \textit{The Psychologist}, 18:2 (February 2005), pp. 72-74.
\end{itemize}
looking at popular concepts of lovesickness.\textsuperscript{506}

The book examines the job of being a lap dancer from the point of view of the dancer, the customer, and the business owner. The viewpoint provided is a particularly interesting and nuanced one, because the author, on whose dissertation the book is based, also worked as a lap dancer while completing her studies. The most compelling contribution of the book, however, is its description and analysis of the motivations of the men who are regular customers of particular lap dancers… Reading the book also provides… a sad pity for the lovesickness of the regulars, whose need for a "slut wife" usually ends only in disappointment.\textsuperscript{507}

The rest of the articles were difficult to categorise from the abstracts or easily accessible electronic versions of the articles.

**DSM**

There was no reference to lovesickness or its synonyms in the DSMs.

**Comprehensive Textbook of Psychiatry**

Burton’s concept of love melancholy is referred to in Volume 6,\textsuperscript{508} Volume 7,\textsuperscript{509} and Volume 8\textsuperscript{510} of the *Comprehensive Textbook of Psychiatry*. Volume 8 mentioned lovesickness in the context of psychoanalysis, and therapists' 'libidinal or promiscuous behaviors';\textsuperscript{511} Otherwise, lovesickness and its synonyms do not appear in the *Comprehensive Textbook of Psychiatry*.

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Other Texts
There was nothing in the other psychology and psychiatric textbooks about lovesickness and its synonyms.

Conclusion
Little remains of old concepts of morbid love going under the diagnostic label lovesickness. Other than as a name for a historical concept, 'lovesick' has most commonly been the diagnosis given to psychotherapists who indulge in boundary violations with patients because of romantic love. While this does not seem a direct descendant from more traditional concepts of lovesickness, there is an interesting parallel -- both commonly involve feelings of romantic love which if acted upon would break society norms.
EROTOMANIA

One remanent of lovesickness suggested by at least one historian\textsuperscript{512} is erotomania.

Modern Concepts and Definition

Erotomania (also called 'de Clérambault’s syndrome', and more rarely in English literature 'délires passionels' or 'psychose passionelle') is categorised by DSM-IVR, along with delusional jealousy, as a subtype of delusional disorder, and defined as a disease in which a person holds the delusional belief ‘…that another person is in love with them. The delusion often concerns idealized romantic love and spiritual union rather than sexual attraction. The person about whom this conviction is held is usually of higher status (e.g., a famous person or superior at work), but can be a complete stranger.’\textsuperscript{513} At the core of this conception is a delusional cognition about what another person’s emotional state is rather than the emotional state of the designated patient. While in theory the sufferer from erotomania does not have to be in love with the other person for erotomania to be present, in practice the literature does not provide examples of this.

While in DSM-IVR the diagnostic name 'erotomania' referred to the disease concept delusional love, historically this was not always the case.

History of the Concept

Historically erotomania was often used as a synonym for lovesickness.\textsuperscript{514} During the Medieval and Renaissance periods the delusional aspect appeared absent, and hypersexuality was not emphasised.\textsuperscript{515} However, during the Renaissance, Jacques Ferrand’s discussion of lovesickness included erotomania conceptualised as a disorder of hypersexuality.\textsuperscript{516} By the eighteenth century, this alternative meaning -- erotomania as a disease of excess sexual appetites may have been the dominant one.\textsuperscript{517}

Esquirrol gave clear examples of a delusional presentation identical to the modern definition of erotomania under the title ‘erotic monomania’,\textsuperscript{518} though as previously discussed, his concept (and the clinical examples) was much broader than simply the delusion of being loved. He emphasised, however, that this was not a disease of hypersexuality.

Not everyone was convinced with Esquirrol’s clear separation of nymphomania and

\begin{footnotesize}
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erotomania, and sexualised ideas of erotomania persisted.

The rise of the concept of erotomania as a delusion, and the decisive change of emphasis from being in love to being loved probably dates from the late nineteenth and early twentieth centuries in the writings of P. Serieux, J. Capgras, Benjamin Ball, R. von Krafft-Ebing, and E. Kraepelin.

However, the modern conception of erotomania is usually ascribed to the French psychiatrist Gaetan Gatian de Clérambault (1872-1934) who published a comprehensive review paper on the subject (*Les Psychoses Passionelles*) in 1921. In this review de Clérambault de-emphasised sexual aspects (as indeed had Esquirrol) and instead described a form of delusional love. German Berrios has challenged de Clérambault’s status as the originator of modern concepts of erotomania, arguing this is an Anglo-Saxon misinterpretation caused by misunderstanding the French psychiatric system of the time.

**Databases**

Questions: What was the relative strength of the relationship between the disease concept of erotomania during this period and the three concepts romantic love, sex, and delusions? Is the concept of delusional love most strongly associated with erotomania or delusional jealousy? What was the specific connection between erotomania and romantic love during this period?

A slightly different methodology was used to answer the first two of these questions. Firstly, the psychINFO database was searched using the keywords ‘erotomania’ or ‘Clérambault’s’ which gave a total of 143 articles in English. The results of this search were then combined serially with:

- the Thesaurus term ‘delusions’ (in its expanded form);
- the Thesaurus terms ‘love’ or ‘romance’ (in their expanded forms);
- the Thesaurus terms ‘psychosexual behaviour’ (in its expanded and exploded form) or ‘sexual addiction’ (in its expanded form).

The results were gathered decade by decade. These results are presented below in chart form, first as a total number of ‘erotomania’ references associated with each concept, then with percentage of the total number of ‘erotomania’ references associated with each concept (the raw numbers are included in Appendix II).

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522 Keywords were used both to capture better the changing meaning of ‘erotomania’ and to more closely mirror Medline.
524 Definition: ‘Human sexual behavior which includes both mental and somatic aspects of sexuality.’ Introduced in 1967. Tree Information: Broader, ‘behaviour’; Narrower, a wide range of terms covering normal and abnormal sexual behaviour including hypersexuality; Related, nil.
526 These searches were performed in January 2009.
Other than a predominance of the delusion/erotomania concept in PsychINFO, beginning in the nineteen sixties, these graphs do not seem to show any particular historical trends.
The Medline database had no MeSH term for erotomania or de Clérambault’s so in order to get an idea whether the concept of erotomania was most closely associated with romantic love, sex, or delusions during this period the Medline database was searched using the keywords ‘erotomania’ or ‘Clérambault’s’ which gave a total of 102 articles in English. The results of this search were then combined serially with:

- the MeSH terms ‘delusions’\(^{527}\) (in its expanded form); or ‘schizophrenia and disorders with psychotic features’\(^{528}\) (in its expanded and exploded form);
- the MeSH term ‘love’ (in its expanded form) combined with the keywords ‘romance’ and ‘romantic’;
- the MeSH terms ‘sexual behaviour’\(^{529}\) or ‘sexual dysfunctions, psychological’\(^{530}\) (both in their expanded and exploded forms).

The results were gathered decade by decade.\(^{531}\) These results are presented below in chart form, first as a total number of ‘erotomania’ references associated with each concept, then with percentage of the total number of ‘erotomania’ references associated with each concept (the raw numbers are included in Appendix II).

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\(^{527}\)Definition: ‘A false belief regarding the self or persons or objects outside the self that persists despite the facts, and is not considered tenable by one’s associates.’ Tree Information: Broader, ‘behavioural symptoms’; Narrower, nil; Related, a wide range of behaviours, but not ‘erotomania’.

\(^{528}\)Definition: ‘Marked disorders of thought (delusions, hallucinations, or other thought disorder accompanied by disordered affect or behavior), and deterioration from a previous level of functioning.’ History Notes: 1998. Tree information: Broader, ‘mental disorders’; Narrower, ‘paranoid disorders’, ‘psychotic disorders’, ‘schizophrenia’, ‘Capgras syndrome’; Related, multiple mental illness categories.

\(^{529}\)Definition: ‘Sexual activities of humans’. Introduced in 2004. Tree information: Broader, ‘behaviour’; Narrower, a range of terms covering sexual behaviour; Related, nil.

\(^{530}\)Definition: ‘Disturbances in sexual desire and the psychophysiological changes that characterize the sexual response cycle and cause marked distress and interpersonal difficulty. (APA, DSM-IV, 1994)’ History Notes: 99(81). Used For: frigidity; hypoactive sexual desire disorder; orgasmic disorder; psychosexual disorders; psychosexual dysfunctions; sexual arousal disorder; sexual aversion disorder; arousal disorders, sexual; aversion disorders, sexual; disorder, psychosexual; disorders, orgasmic; disorders, psychosexual; disorders, sexual arousal; disorders, sexual aversion; dysfunction, psychological sexual; dysfunction, psychosexual; dysfunctions, psychological sexual; dysfunctions, psychosexual; orgasmic disorders; psychological sexual dysfunction; psychological sexual dysfunctions; psychosexually disorder; psychosexual dysfunction; sexual arousal disorders; sexual aversion disorders; sexual dysfunction, psychological. Tree Information: Broader, ‘sexual and gender disorders’; Narrower, ‘erectile dysfunction’, ‘dyspareunia’, ‘paraphilias’, ‘transsexualism’, vaginismus’; Related, nil.

\(^{531}\)These searches were performed in January 2009.
There was again a predominance of the delusion/erotomania concept in Medline dating from the sixties, but again these graphs do not seem to show any other strong historical trends.

The next search, to see if the concept of delusional love was most associated with erotomania or jealousy, was made using the Thesaurus term ‘delusions’ in its expanded form, combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms.

This search produced eight articles, seven of which from the abstracts were clearly concerned with erotomaniac delusions, and none with delusions of jealousy. This suggests that in psychINFO the combination of the concepts romantic love and delusions routinely indicates erotomania.

Then a search was done using the MeSH term ‘delusions’ in its expanded form, combined with the MeSH term ‘love’ in its restricted form and the keywords ‘romance’ and ‘romantic’.

This search produced 43 abstracts, 39 of which were clearly concerned with erotomaniac delusions, and three with delusions of jealousy.\textsuperscript{532} This suggests that in Medline the combination of the concepts romantic love and delusions routinely indicates erotomania.

\textsuperscript{532}It was unclear from the information provided how to categorize two of the articles, and one article was about both.
indicates erotomania rather than delusional jealousy.

Finally, to identify articles for abstract review, the psychINFO database was searched using the Thesaurus term ‘erotomania’ in its expanded form, and (as this term appeared to be missing a lot of relevant articles), ‘delusions’ in its expanded form, and ‘Clérambault’s’ as a keyword combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. The Medline database was searched using the keywords ‘erotomania’ and ‘Clérambault’s’ and the MeSH term ‘delusions’ combined with the MeSH term ‘love’ in its restricted form or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed to remove references not about erotomania and romantic love.

This search produced 48 references, with the years of publication ranging from 1994 to 2005. Two references were chapters from the same book. Four authors

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533 Definition: ‘A person's false belief that others are sexually attracted to and/or in love with him or her. Also used to describe an abnormally strong sexual desire.’ Introduced in 1997. Tree Information: Broader, nothing; Narrower; nothing, Related, many terms including ‘love’, ‘obsessions’, ‘delusions’, ‘attachment behaviour’, ‘hypersexuality’, and ‘partner abuse’.

534 All these searches of the psychINFO and the Medline databases were on 7/9/07.

535 To put this in some kind of context on 7/9/07 in psychINFO the Thesaurus term ‘erotomania’ expanded produced sixty articles, while the keyword ‘Clérambault’s’ gave fifty-seven. In Medline the keywords ‘erotomania’ or ‘Clérambault’s’ produced 159 articles.


had more than one reference.\textsuperscript{537} Most of the articles came from Medline, but in psychINFO there were two articles cited five or more times. Brüne et al.’s article, cited five times, had an evolutionary perspective on erotomania, arguing it was best understood as a pathological variant of a long-term mating strategy.\textsuperscript{538} Gillet et al.’s article, cited nine times, appeared a straightforward case study of women with erotomaniac delusions.\textsuperscript{539}

Erotomania as a delusion of being loved (and a disease, or at least a sub-category of a disease, in its own right), while conceptually most closely associated with the idea of delusional disorder, was also sometimes seen to be as a symptom of other disorders.\textsuperscript{540}

The only abstract which did not address the concept of delusional erotomania was also the oldest,\textsuperscript{541} in which erotomania sounds much like old fashioned lovesickness:

The erotomaniac individual's love is of a platonic nature. Erotomania constitutes a diseased form of ideal love. The physical sexual appetite is generally foreign to the erotomaniac. The object of the individual's love occupies the mind only. It is a continual obsession of the spirit. The erotomaniac individual makes an abstraction of the physical personality of the adored. It is pursuing an ideal.\textsuperscript{542}


Variations from delusional erotomania were rare: apart from a history article, one author championed the ideal of ‘borderline erotomania’, seemingly a variant of stalking...

...borderline erotomania, in which no delusion is present, yet an extreme disorder of attachment is apparent in the pursuit of, and in the potential for violence toward, the unrequited love object.

These abstracts concentrate (as does DSM-IVR) on the delusional idea of being loved rather than the emotional state of being in love, which, even if mentioned is seemingly slipped in without any great thought, for example (in this case talking about desire rather than love):

Erotomania is the delusional belief that one is passionately loved by another. These persons often go to great lengths to approach their object of desire...

Only one article was explicit about including the emotion love in its description of erotomania: ‘The pathologies of love usually involve a mixture of morbid infatuation and a morbid belief in being loved.’

Hypersexuality was only mentioned by two abstracts -- the oldest and a history of erotomania, suggesting a minimal overlap conceptually between love/erotomania and sex/erotomania.

A number of themes appeared to run through the abstracts. There was some interest in linking erotomania with various forms of known brain damage. Other articles

took a psychodynamic approach.\textsuperscript{550} The majority of articles did not make a differentiation on the basis of gender, but a substantial minority conceptualise erotomania as a disease primarily affecting women.\textsuperscript{551} and there was also interest in patients developing erotomantic beliefs about doctors.\textsuperscript{552} Even though this search was confined to English there was a multi-cultural flavour to the abstracts, illustrated by the journals in which they were published.\textsuperscript{553} There was a strong interest from


M.H. Hollender, ‘Erotomania or De Clérambault Syndrome’, \textit{Archives of General Psychiatry}, 32:12 (December 1975), pp. 1574-76.


M.H. Hollender, ‘Erotomania or De Clérambault Syndrome’, \textit{Archives of General Psychiatry}, 32:12 (December 1975), pp. 1574-76.


forensic psychiatrists, and a link with crime, violence, aggression, and stalking.\textsuperscript{554}

\textbf{DSM}

In DSM-I erotomania is listed as a ‘Supplementary Term’ without further explanation.\textsuperscript{555} It is not mentioned in DSM-II\textsuperscript{556} or DSM-III\textsuperscript{557}, but by DSM-IIIR the noun 'erotomania', had become the adjective 'erotomanic', and was listed as a subtype of delusional disorder.\textsuperscript{558} DSM-IV continued to categorise it as a subtype of delusional disorder and commented that the delusion 'concerns idealised romantic love and spiritual union rather than sexual attraction'.\textsuperscript{559} There was a similar reference in DSM-IVR.\textsuperscript{560}

In none of these editions was there any mention of de Clérambault’s syndrome.

\textbf{Comprehensive Textbook of Psychiatry}

In Volume 1 of the \textit{Comprehensive Textbook} there was no reference to erotomania, but there was the similar conception 'paranoid eroticism',\textsuperscript{561} which included concepts


of ‘desire’ and ‘passion’ but not love, and took a psychoanalytic viewpoint -- the patient's own desires were projected onto someone else. It was part of a wider ‘paranoid reaction’ group, a forerunner of delusional disorder. De Clérambault’s syndrome was also separately discussed.\textsuperscript{562} including the idea that the diagnosis mainly applied to women. Volume 1 did not make any connection between erotomania and hypersexuality. In Volume 2 erotomania was noted as both a pathological preoccupation with sex,\textsuperscript{563} and as a type of delusion.\textsuperscript{564} Similarly, Volume 3 used the name erotomania for both the ‘pathological preoccupation with sexual activities or fantasies’,\textsuperscript{565} and delusional projected love.\textsuperscript{566} The latter illness (which in Volume 3 was also called de Clérambault’s) was understood psychodynamically,\textsuperscript{567} and defined as only affecting women.\textsuperscript{568}

In erotomania or de Clérambault’s syndrome, the patient, always female, maintains a fixed delusional belief that a man, usually considerably older and of higher social status, is much in love with her.\textsuperscript{569}

Volume 4 had near identical concepts of hypersexuality\textsuperscript{570} and delusional love as Volume 3;\textsuperscript{571} with a further elaboration of the psychodynamic explanation of delusional love -- paranoia is caused by repressed homosexual impulses and therefore:

\[\text{....in erotomanic delusions, patients change "I love him" to "I love her" and this feeling, through projection, becomes "she loves me."}\textsuperscript{572}

However, in Volume 5 erotomania was not mentioned in a discussion of the diseases of hypersexuality,\textsuperscript{573} and the idea of delusional love now appeared dominant (but still mainly affecting women).\textsuperscript{574} By Volume 6 erotomania remained strongly associated with delusional love and was seen as a synonym for de Clérambault syndrome. It was

\begin{thebibliography}{9}
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still noted to be more common in women. Volume 7 closely followed Volume 6, except when discussing delusional disorder, the case example for erotomania involved the patient being arrested on a stalking charge (the first occasion when fairly typical erotomanic harassment behaviour is labelled stalking). In Volume 8 erotomania remained strongly associated with delusional love and was still noted to be more common in women. When discussing erotomania in the context of delusional disorder the textbook noted a possible connection with stalking. The only connection to sex was a listing as a differential for sex addiction (though even here it is listed as a delusional disorder).

Two additional points are worth noting. In the volumes where the concepts of erotomania as a disease of hypersexuality and as a disease of delusional love both appeared, they were not in the same place, but in different chapters and by different authors. Secondly, the early references to erotomania as a sexual problem were very brief, whereas several columns were given to erotomania as delusional love in later volumes.

Other Psychiatric Texts
Other psychiatric textbooks also saw erotomania as delusional love with the most recent Companion to Psychiatric Studies also making a connection between erotomania and stalking. Only one of these other psychiatric textbooks made reference to erotomania as a disease of hypersexuality, though this was one of the more modern ones.

Clinical Psychology Textbooks
Erotomania does not appear to have been a widely utilised concept in clinical psychology textbooks, and in the rare brief references, all conceptualise erotomania as a disease of delusional thinking.

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Conclusion
This chapter had the most data to sift through, and there are multiple interesting findings. However, the conclusions most relevant to the study would appear to be:

- That the diagnostic label 'erotomania' became strongly associated with the concept of delusions from the nineteen sixties and less with romantic love or hypersexuality.
- This appears to be connected to the defining of erotomania as a subtype of delusional disorder (even though it is widely acknowledged that delusional love appears just as commonly in other disorders).
- The word 'erotomania' continued to be associated with being in love, but almost exclusively within the context of a simultaneous delusion of being loved.
- The concept of delusional love is more strongly associated with erotomania rather than delusional jealousy during this period.
- There are suggestions in more recent texts that erotomania is becoming associated with stalking.
- The disease concept erotomania is the main historical descendant of lovesickness.

PATHOLOGICAL JEALOUSY

There are parallels and overlaps between both the conceptions and the history of jealousy and love, and so it follows that another candidate for lovesickness in a modern form is pathological jealousy (erotic jealousy syndrome, Othello syndrome, morbid jealousy, paranoid jealousy).

Modern Conceptions

Jealousy, like love, is usually considered an emotion, and like love has similar problems with definition and classification.

Jealousy typically refers to the thoughts, feelings, and behaviours that occur when a person believes a rival is threatening a valued relationship. When that relationship is a romantic one, the term romantic jealousy is often used. One modern definition of romantic jealousy that emphasises the emotional side was given by Buunk in 1991: the ‘…aversive emotional reactions evoked by the real, imagined, or expected attraction between one’s current or former partner and a third person.’

Unlike romantic love, romantic jealousy is rarely experienced or viewed as a positive experience, which allows for a fairly consistent division of romantic jealousy into three types: normal, pathological and delusional. This also means, however, that because jealousy is experienced as aversive in modern Western society, where normal romantic jealousy shades into excessive or pathological jealousy becomes very much a matter of opinion, and this opinion is usually that of an outside authority such as a psychiatrist, particularly when the emotion leads to what society considers deviant behaviour. In delusional jealousy (sometimes more accurately called a delusion of infidelity) as in delusional erotomania, the emotion is considered normal, but the conclusion of a partners infidelity is ‘arrived at without due cause and is based on incorrect inferences…’. It is this category, delusional jealousy, that appears to be of most interest to modern psychiatry illustrated by the space it is given in DSM and the Comprehensive Textbook of Psychiatry.

While many believe there is a strong biological basis for jealousy, most authors emphasise the importance of viewing the expression of it in its social and cultural

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Though once again this rather depends on what definition of emotion is being used.
In other words most modern researchers view it, like romantic love, as a biological-social-cultural construct.

**History of the Concept**

Like that of love, the history of jealousy, both as an emotion and as a medical entity, is somewhat sketchy, with little research, much of which is heavy in theory but light on empirical evidence.

Some theorists have argued that the origins of jealousy go back deep into our evolutionary history. On the other hand, one historian, relying chiefly on the absence of prior evidence, believes romantic jealousy developed as a new emotion around the same time as Courtly love.

Romantic jealousy and romantic love have been closely linked for a long time. In St Augustine’s *Confessions*, he states categorically that ‘He that is not jealous, is not in love’. However, evidence of medical interest in romantic jealousy before the Renaissance is lacking and secondary sources do not emphasise jealousy in medical accounts of lovesickness before the Renaissance.

There is a clearer picture during the Renaissance, when jealousy was described in medical texts as both a cause and effect of melancholy, and was treated in the same way as lovesickness. Indeed, it was strongly associated with lovesickness in the Renaissance works such as Burton’s *Anatomy of Melancholy* and Ferrand’s *Treatise on Lovesickness*.

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594 Written well before the dates given by some historians for the birth of romantic love and romantic jealousy.


But moving to the Enlightenment, Esquirrol’s erotic monomania does not feature jealousy, nor does jealousy feature as a stand-alone topic. Indeed jealousy, along with lovesickness, appeared to lose popularity as a medical concept in the nineteenth century. During the same period, however, Western culture may have developed an increasing perception of jealousy as a negative emotion, paving the way for its comeback as a medical problem in the twentieth century.

This twentieth century revival of interest in morbid jealousy was mainly as part of the paranoid disorders (which included erotomania). These diseases were conceptually descended from Esquirol’s concept of monomania, and later became the delusional disorders. Influential psychiatric works on jealousy in the twentieth century include those of A. Mairet in 1908, K. Jaspers in 1910, Freud in 1922, D. Lagache in 1947, H. Ey in 1950, M. Shepherd in 1961, H. Mooney in 1965, and J.P. Cobb in 1979. More recently White and Mullen’s model of romantic jealousy -- a complex of thoughts, emotions and actions -- has been influential. There have also been cognitive models models based on attachment theory, and more biological models, relating it to alcohol abuse.

**Databases**

**Question:** What was the connection during this period between the concepts of pathological jealousy and romantic love?

The psychINFO database was searched using the Thesaurus term 'jealousy' in its expanded form (it cannot be exploded), and (because there was no Thesaurus term for pathological jealousy) the keywords 'pathological jealousy' or 'erotic jealousy syndrome' or 'Othello syndrome' or 'morbid jealousy' or 'paranoid jealousy' or 'delusional jealousy' or 'delusions of infidelity' combined with both the Thesaurus terms 'love' and 'romance' in their

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612 No definition. Used for ‘envy’. Year Term Introduced 1973. Tree information: Broader, ‘emotional states’; Narrower, nothing; Related to ‘anxiety’ and ‘anger’ but not to ‘love’.
613 The Thesaurus term ‘delusions’ was not used as previous searches using this term showed it was overwhelmingly associated with erotomania when combined with Thesaurus terms ‘love’ and ‘romance’.
restricted forms. The Medline database was searched using the MeSH term 'jealousy' and (because there was no MeSH term for pathological jealousy) the keywords 'pathological jealousy' or 'erotic jealousy syndrome' or 'Othello syndrome' or 'morbid jealousy' or 'paranoid jealousy' or 'delusional jealousy' or 'delusions of infidelity' combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined and double-ups removed. The abstracts of these references were then reviewed looking for the concept of pathological jealousy linked with romantic love.

This search produced only three references published between 1990 and 2006, and one of these was a movie review. There are appeared to be greater overlap between the concept of non-pathological jealousy and the concepts romance and love.

One reference saw love as a pathway to morbid jealousy, two references linked morbid jealousy with unrequited love, erotomania (though with the delusional aspect downplayed), and stalking.

There were no references linking erotomania and delusional jealousy, despite their classification in modern diagnostic systems as variants of the same disease -- delusional disorder.

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614 Definition: 'An irrational reaction compounded of grief, loss of self-esteem, enmity against the rival and self criticism.' Tree information: Broader, 'emotions'; Narrower, nil; Related, a range of emotions including 'love'.

615 The MeSH term 'delusions' was not used as previous searches using this term showed it was overwhelmingly associated with erotomania when combined with the MeSH term 'love' or the keywords 'romance' or 'romantic', and did not generate articles not already found using other search terms.

616 Both the psycINFO and the Medline databases were searched 31/8/07.

617 To put this in some context the number of references in psycINFO for the Thesaurus term 'jealousy' in its expanded form on 20/9/07 was 812, whereas 'pathological jealousy' or 'erotic jealousy syndrome' or 'Othello syndrome' or 'morbid jealousy' or 'paranoid jealousy' or 'delusional jealousy' or 'delusion of infidelity' or 'delusions of infidelity' gave 116. In Medline the MeSH term 'jealousy' in its expanded form gave 404, while 'pathological jealousy' or 'erotic jealousy syndrome' or 'Othello syndrome' or 'morbid jealousy' or 'paranoid jealousy' or 'delusional jealousy' or 'delusion of infidelity' or 'delusions of infidelity' gave 84.


621 On 15/10/07 the number of references in psycINFO for the Thesaurus term 'jealousy' in its expanded form combined with restricted Thesaurus terms 'love' or 'romance' was 62, while in Medline the MeSH term 'jealousy' in its expanded form combined with the MeSH term 'love' or the keywords 'romance' or 'romantic' gave 28 references.


DSM
The only mention of jealousy in DSM-I was during a description of the paranoid personality who was described as having the character trait of extreme jealousy. 623 DSM-II also saw jealousy as part of a paranoid personality, 624 but in addition the alcoholic paranoid state (a paranoid state which develops in chronic alcoholics, generally male, and is characterized by excessive jealousy and delusions of infidelity by the spouse), 625 and some forms of adjustment reaction of childhood. 626 In DSM-III jealousy was again listed as part of the paranoid personality disorder, 627 but this updated version stated that the concept of alcoholic jealousy was best described as a combination of alcohol dependence, and paranoid disorder. 628 The latter disorder was a forerunner of the modern delusional disorder, 629 and delusional jealousy was a subcategory. Delusional jealousy was also a feature of ‘schizophrenia, paranoid type’. 630 Delusional jealousy, but this time called a ‘delusional of infidelity’, was noted to be a symptom of dementia. 631 DSM-IIIR was identical to its immediate predecessor with regard to paranoid personality disorder, 632 alcoholic jealousy, 633 and delusions of infidelity in dementia. 634 The latter concept by a different name -- delusional jealousy -- was now in its modern category as a subtype of delusional disorder. 635 This delusion was not mentioned in the discussion of schizophrenia. In DSM-IV delusional jealousy was once more a characteristic of schizophrenia of a paranoid type, 636 and remained a subtype of delusional disorder. 637 DSM-IV said of paranoid personality disorder: ‘individuals with this disorder may be pathologically jealous.’ 638 There were no significant change is to these conceptions in DSM-IVR. 639

In none of these editions is love mentioned in the context of jealousy.

**Comprehensive Textbook of Psychiatry**

In Volume 1 of the *Comprehensive Textbook of Psychiatry* there was a concept of ‘Paranoid jealousy’, which took a psychoanalytic viewpoint -- one's own desires (to have an affair for example) are projected onto someone else. Volume 2 also took a psychoanalytic view of jealousy, including, somewhat in advance of DSM, the concept of delusional jealousy, viewed as caused by psychodynamic mechanisms. Pathological jealousy was also seen as part of a paranoid personality. Volume 3 noted the historical links between alcoholism and jealousy, and violence (in the latter case making a rare connection to love). A psychodynamic theory of jealousy was reiterated. Volume 4 noted that ‘pathological jealousy symptoms occur in many illnesses, including drug abuse, alcoholism, schizophrenia, organic mental disorders, and the affective disorders.’ The difference between normal and pathological jealousy was thought to be similar to that between normal grief and pathological mourning, and pathological jealousy was further defined ‘as a compound emotion: of grief, hatred, loss of self-esteem, and ambivalence. It may have its roots in unconscious homosexual attachments and merge into paranoid delusional thinking.’ This link with homosexuality was derived from Freud -- according to Volume 4, Freud believed that paranoia was caused by repressed homosexual impulses and therefore: ‘Freud also believed that unconscious homosexuality is the cause of delusions of jealousy. In an attempt to ward off threatening impulses, the patient asserts, "I do not love him; she loves him." Freud believed that the man the paranoid patient suspects his wife of loving, is subconsciously a man to whom the patient feels homosexualy attracted.’ The majority of references to jealousy in Volume 4 were psychodynamic. There was

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also reference to delusional jealousy, first defined as a 'Delusion of infidelity: false belief derived from pathological jealousy that one's lover is unfaithful,' \(^{652}\) and later characterised as, 'Conjugal paranoia: a variant of classical paranoia, conjugal paranoia, also called the "Othello syndrome" is limited to delusions of jealousy involving the spouse. Initial minor criticism of the spouse progresses through suspiciousness to full-blown delusions.' \(^{653}\) By Volume 5 while psychodynamic ideas about jealousy were still present, \(^{654}\) they were given decreased emphasis; and similarly while Freud's ideas about paranoia were described, \(^{655}\) they were given less prominence when discussing delusions of jealousy (which were now in their modern position in the section on delusional disorders). \(^{656}\) Volume 6 \(^{657}\) and Volume 7 \(^{658}\) were similar in this regard. Volume 8 had normal, pathological, and delusional jealousy categories (with the emphasis remaining on the latter), none of which were described in psychodynamic terms. \(^{659}\)

In none of these volumes was a clear connection made between jealousy and romantic love.

**Other Psychiatric Textbooks**
The other psychiatric textbooks concentrated on delusional jealousy, \(^{660}\) with only one reference to jealousy in alcoholics. \(^{661}\)

**Clinical Psychology Textbooks**
In the clinical psychology textbooks there was no mention of jealousy.

**Conclusion**
The main conclusion to draw from this data is that while morbid jealousy probably derives in part from old ideas of lovesickness, in its modern conception, the connection with romantic love appears tenuous, and this is the case even with delusional jealousy, which in most recent psychiatric textbooks sits beside delusional


love (erotomania) in the section on delusional disorders.

While this was not the specific focus of the research, there were other possible trends in the disease conceptions of pathological jealousy. Pathological jealousy was increasingly seen as delusional (though this connection was not as strong as in erotomania), and specifically associated with delusional disorder. There appeared a trend away from an association with psychodynamic ideas and alcoholism. The association with a paranoid personality seemed consistent over time.
LOVE ADDICTION

Tallis has suggested that a modern form of morbid love might be love addiction, a disease entity with no direct historical links to lovesickness, but containing some similar concepts. As Tallis points out, there are obvious parallels between the ideas of romantic love and addiction: ‘addicts feel incomplete, they obsess, crave, and feel out of control; they experience severe mood disturbance…they become dependent and, when denied, suffer from a withdrawal syndrome; addicts accept that their behaviour is irrational, but feel compelled to continue’.662

Modern Definitions
There is no definition of love addiction in DSM-IVR or the eighth addition of the Comprehensive Textbook of Psychiatry. Indeed, as a concept developing primarily outside academia, clear definitions of love addiction are difficult to find, reflecting a broad and inconsistent disease concept. For this reason, instead of studying the concept, as is the case in the majority of the other searches, this section follows more the diagnostic name ‘love addiction’ and what disease concepts this diagnostic name refers to.

History of the Concept of Addiction
The idea of addiction originated in connection with the consumption of alcohol. The concept of individual habitual excess or addiction, as opposed to voluntary drunkenness, can be seen as early as the beginning of the seventeenth century in the sermons and other moralizing tracts of the times.663 The earliest mention of alcohol addiction in medical writing was not until the eighteenth century.664 The conception of alcoholism as a disease took hold in the United State during the nineteenth century,665 and was embraced by groups outside the medical profession, notably the Alcoholics Anonymous (AA) movement. The AA, a self-help group for alcoholics, was formed in the late nineteen thirties in the wake of the perceived failure of the Prohibition movement in the USA. In contrast to the latter movement, the AA did not view alcohol as a universal evil, but rather believed that only certain susceptible people had the disease alcoholism, which manifested itself when they were exposed to the substance (essentially a physiological model).666 The cause of the disease was seen in biological terms, but the treatment was envisaged as a type of spiritual-moral journey consisting of twelve steps, hence the name twelve-step treatment.

Underlying this was the concept of a disease of the will.667 Drinking is an action or behaviour. In order for repetitive, destructive drinking to be viewed as an illness it is

necessary that this is not a willed behaviour, because otherwise it is simply wilful stupidity or an uncaring moral transgression. Characteristically, therefore, alcoholism is seen as a sapping of the willpower; or to put it another way a compulsion to drink, outside the control of the sufferer. This model was very popular and could be applied to problems with a wide range of substances. But, with the possible exception of the USA, twelve-step disease models and treatment have remained on the periphery of medicine. Neither the public at large nor the medical profession have entirely accepted the idea that alcohol and drug problems are best seen as diseases. In particular there remain strong moral and legal sanctions against their use and misuse in most cultures; and even where drug misuse is seen as a health problem, there is more enthusiasm for a public health view of the disease.

**History of the Concept of Love Addiction**

This model, where addiction was a problem specific to the person rather than the drug, lent itself to a wider range of difficulties than those associated with drugs, indeed it seemed that any problematic compulsive behaviour (overeating, problem gambling) could be viewed as being caused by the disease process addiction -- and that included behaviour relating to love.

Addiction to love, like love viewed as an disease, is both a metaphor in the arts and a disease concept. Which field it emerged in first would be an interesting historical study, but the phrase 'love addiction' first appears in the academic literature in an article in 1974 and then in a book, *Love and Addiction*, published by the social psychologist Stanton Peele in association with Archie Brodsky. Rather than addiction to romantic love, what they appeared to be describing was an unhealthy addiction to a relationship, sometimes named relationship addiction, and thus the healthy alternative was conceptualised as a form of love similar in most respects to the idea of companionate love. In contrast to many later authors Peele explicitly rejected the notion that he was talking about addiction as a disease.

Though Peele’s book was frequently referenced, his attempt to redefine addiction as a social-behavioural concept has not proved influential outside academia. Instead, using the same name – ‘love addiction’ - a medical model of disease, or more specifically the AA twelve-step conception of addiction as a disease, has become increasingly popular. The year after *Love and Addiction* was published, Sex and Love Addicts Anonymous (SLAA) a twelve-step program for sex or love addiction was started in Newton, Massachusetts. SLAA viewed love addiction as separate but

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668 Narcotics Anonymous, officially founded in 1953, was the most successful twelve-step self-help group formed to help people with addictions to drugs other than alcohol.

669 And in particular the popular arts such as songs (for example *Addicted to Love* written and sung by Robert Palmer and released 1986) and motion pictures (for example *Addicted to Love* 1997, directed by Griffin Dunne).

670 I suspect the metaphor is earlier. Cole Porter’s ‘I Get a Kick Out of You’ released back in 1932 was likening love to intoxication with alcohol or cocaine.


673 Augustine Fellowship, Sex and Love Addicts Anonymous, Boston: Fellowship-Wide Services, 1986, p. 35.
overlapping sex addiction. The dominant concept with regard to love appeared to be relationships and relationship addiction, but the idea was broader than this and included notions of addiction to falling in love with serial partners and addiction to the romantic love experience with one partner. Moreover love addiction was viewed as a disease complete with a diagnosis and twelve-step treatment. Love Addicts Anonymous (LAA) is a newer, smaller twelve-step organisation that was started in the San Francisco Bay Area. This organisation de emphasised sex-addiction, but retained the broad conception of love addiction, including under the title: stalking, morbid jealousy, relationship addiction, co-dependency, lovesickness, and romantic love addiction. Inspired by these and similar groups, a number of authors have written popular self help books, that have proved enormously popular.

The most prominent academic author on love addiction who follows this twelve-step model was Eric Griffin-Shelley. His love addiction was also conceptually broad, with relationship addiction being prominent, but there are many other concepts. He gives clinical vignettes which resemble sex-addiction, co-dependency (see below) and borderline personality disorder. Love addiction also encompassed what previously would have been described as typical cases of lovesickness – unrequited love leading to depression; over intense romantic love leading to obsession, jealousy, and a drop in functioning; or falling in love with a clearly inappropriate (in the eyes of society) person. Finally, there is the concept of addiction to the emotion romantic love.

Related Concepts
Within the addiction treatment field, alongside this creation of the disease of love addiction, a number of overlapping concepts have also developed, the most important of which are sex addiction and co-dependency.

Sex addiction, a new twist on the older ideas of nymphomania and satyriasis, proved even more popular as a concept than love addiction and spawned a multitude of twelve-step self-help groups. As well as SLAA, there now exist such groups as, Sexual Compulsives Anonymous, Sex Addicts Anonymous, Sexaholics Anonymous, Sexual Recovery Anonymous, Co-Dependants of Sex Addicts (COSA), S-Anon International Family Groups, and CO-Sex and love Addicts Anonymous (COSLAA). The idea of sexual addiction was brought to a wider audience by the psychologist Patrick Carnes in his 1983 book The Sexual Addiction.

The concept and name co-dependency appeared on the treatment scene in the nineteen

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674 The SLAA have a pamphlet ‘40 Questions for Self Diagnosis’.
676 http://loveaddicts.org/, accessed 19/9/07.
680 Patrick Carnes, The Sexual Addiction, Minneapolis: CompCare, 1983.
seventies, probably originating in Minnesota, USA.\textsuperscript{681} It seems to have developed from around the middle of the century out of attempts among workers and self-help groups (Al-Anon, AcoA) in the addiction field to make sense of alcoholism in the context of marriage and de facto marriage relationships. These workers initially saw the psychological difficulties of the alcoholic’s partner as a possible aetiology for the alcoholism. This concept was then reversed, so that the psychological and behavioural difficulties exhibited by the partner were viewed as reactions to the stress of living with an alcoholic. In turn this evolved into the notion of co-dependency -- a typical pattern of thoughts and behaviours that the partner brought to the relationship with the alcoholic. The person with this pattern could then be ‘diagnosed’ as a co-dependent.\textsuperscript{682} However, as it became clear that similar patterns of behaviour could occur in any relationship co-dependency developed into a stand alone concept, popularised (among many similar books on the subject) by Robin Norwood’s \textit{Women Who love Too Much} (1986)\textsuperscript{683} and Melody Beattie’s \textit{Co-Dependent No More} (1987).\textsuperscript{684} Co-dependency bears a strong resemblance to Peele’s love addiction. One piece of empirical research has suggested that co-dependency and love addiction are separate constructs.\textsuperscript{685}

**Range of Concepts of Love Addiction**

Among this mass of ideas about sex, relationships and love, it is difficult to tease out the contribution of romantic love. Adding further confusion, ‘romance addiction’ can mean something else again -- not an addiction to the emotion, but rather an addiction to courtship behaviour, complete with flowers and candle-lit dinners.\textsuperscript{686} Deciding which concept is being discussed is not easy, but usually it is a love relationship including elements of romantic and companionate love.

**The Debate**

From the point of view of this thesis it is fascinating to observe a disease concept coming to life and struggle for acceptance. Indeed, even among advocates of the concept love addiction, the most heated debate was not about what the symptoms, course, prognosis or treatment of love addiction was but rather whether it was a disease at all.\textsuperscript{687}

On one side of this argument are Griffin-Shelley, the self-help groups, and the majority of the popular authors.\textsuperscript{688} These authors characteristically view themselves

\begin{footnotes}
\item[687] Like the concept, this dispute overflows to some degree into a similar one about codependence and it is hard to completely separate the two out.
\end{footnotes}
as co-dependants or love addicts in recovery. For them there is little in the way of
debate, love addiction is a disease.

Stanton Peele was clearly not in agreement with this. His original conception of love
addiction included an attempt to redefine all addictions as other than disease. 689
Stanton’s main argument is that the same quantity of any drug taken in the same way
will affect different people in different ways, therefore the problem is not with the
drug but rather the person. 690 In effect this is an argument against one type of medical
disease model -- an ontological one. Instead, Peele argued, internal personality traits,
and learned behaviours, created mainly by the society in which the person grows up,
make them vulnerable to addiction. 691 In the preface to the second edition of his book
in 1991, unhappy with the dominance of the twelve-step model, Peele launched an
attack on the twelve-step movement. Seemingly misunderstanding the twelve-step
disease model as an ontological one, he rehearsed the same arguments against it as he
laid out in the first edition. 692

Popular authors have also criticized the twelve-step disease model. For example Stan
Katz, like Peele a psychologist rather than an addict in recovery, 693 who does not view
addictions as diseases. In his book (which is more about co-dependency than love
addiction) he separates out ‘physical ailments or sickness’ from ‘mental or emotional
disorders’. The former ‘are identified by rashes, fever, or other specific physical
effects on the appearance and functioning of the body, and by the microbes, bacteria,
or viruses that cause these effects.’ Somewhat confusingly, cancer and diabetes are
then given as examples. Mental disorders he initially defines in a way similar to post
DSM-III conceptions: They ‘are identified by abnormal behaviour, thoughts, and
feelings that interfere with an individual's ability to function.’ However, he adds the
rider that ‘they are outside the range of usual human experience’. 694 Like Peele his
criticisms of the twelve-step movement come from misunderstanding their disease
model as ontological when it is very much a physiological one.

Two other areas of debate are the course of love addiction and its treatment. The
twelve-step disease model identified a chronic, often lifelong illness, whereas Peele 695
and Katz 696 believed it was temporary and self-limiting problem. Obviously the
twelve-step enthusiasts recommended twelve-step treatment, whereas Peele and Katz

Melody Beattie, who writes mainly about codependence briefly mentions both sides of the debate and
come to no clear cut conclusion, however, otherwise she is firmly in the twelve-step camp: Melody

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63.
693 It is possibly significant that two psychiatrists endorse his book: Stan Katz and Aimee Liu,
Codependency Conspiracy: How to Break the Recovery Habit and Take Charge of Your Life, New
694 Stan Katz, Aimee Liu, Codependency Conspiracy: How to Break the Recovery Habit and Take
696 Stan Katz, Aimee Liu, Codependency Conspiracy: How to Break the Recovery Habit and Take
suggest a different form of psychotherapy, which might broadly be called personal development. Given the lack of evidence there was much room for debate on these issues.

But for all these arguments, the proponents of the twelve-step conception of love addiction and their critics (particularly Peele) were not very far apart. Under the diagnostic label of love addiction they postulated physiological causes (emphasising the effects of the environment rather than say genetics), rejected direct ontological influences as the prime cause, had similar broad conceptions of the symptoms, and all prescribed some sort of psychotherapy as a treatment. Where they primarily differed was over whether addiction should be labelled a disease, and this appeared to be mainly due to their differing definitions of what a disease was.

There is an interesting and less obvious way that Peele differed from all those that followed. The love addiction Peele described was a mutual thing. Two people are viewed as addicted to each other in an unhealthy relationship. This is not typical within the other literature -- the co-dependent was paired with the alcoholic, the love addict with the love avoidant.

The Scientific World
There has been a much lower level of interest in the scientific and medical world concerning the concept of love addiction- certainly compared with sex addiction which has its own academic journal -- Sex Addiction and Compulsivity Journal -- and its own search terms in psychINFO and Medline.

Databases
Question: What was the connection during this period between concepts of addiction/codependency and romantic love?

The psychINFO database was searched using the Thesaurus terms ‘addiction’ in its expanded and exploded form and ‘codependency’ in its expanded form, which were combined with the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the MeSH terms ‘behavior, addictive’ or

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700 No definition. Introduced in 1991. Tree information: Broader, nil; Narrower, nil; Related, ‘alcohol abuse’, and various categories relating to personality and family relationships.
701 Definition: ‘The observable, measurable, and often pathological activity of an organism that portrays its inability to overcome a habit resulting in an insatiable craving for a substance or for performing certain acts. The addictive behavior includes the emotional and physical overdependence on the object of habit in increasing amount or frequency.’ Use for ‘addictive behaviour; addictive behaviours; behaviors, addictive’. Introduced in 1992, previously 1974-1991 ‘behavior’. Tree information: Broader, ‘compulsive behaviour’; Narrower, nil; Related, nil.
702 Definition: ‘The behavior of performing an act persistently and repetitively without it leading to reward or pleasure. The act is usually a small, circumscribed behavior, almost ritualistic, yet not pathologically disturbing. Examples of compulsive behavior include twirling of hair, checking something constantly, not wanting pennies in change, straightening tilted pictures, etc.’ Term introduced in 1963. Tree Information: Broader, ‘impulsive behavior’; Narrower, ‘behavior, addictive’; Related, nil.
‘impulsive behaviour’ in their expanded forms and ‘codependency (psychology)’ in its expanded form, which were combined with the restricted MeSH term ‘love’ or the keywords ‘romance’ or ‘romantic’. Because neither database had a term for ‘love addiction’ a keyword search using the phrase ‘love addict*’ was also done in Medline and psychINFO. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for references with love addiction as a major topic rather than ones that gave it only a passing mention.

This search produced 26 references published between 1974 and 2007. Many of


704 Definition: ‘A relational pattern in which a person attempts to derive a sense of purpose through relationships with others.’ Introduced in 1992. This would previously have been coded under ‘Dependency (Psychology)’ (1987-1991). Tree information: Broader, ‘behaviour’; Narrower, nil; Related, ‘interpersonal relations’ and ‘substance-related disorders’.

705 A wild card search looking for the keywords ‘addict’, ‘addicts’, ‘addiction’ and ‘addictions’.

706 Both the psychINFO and the Medline databases were searched 20/9/07.

707 To put this in context on 20/9/07 a search of psychINFO using the Thesaurus term ‘addiction’ expanded and exploded gave 24,782 references, while the Thesaurus term ‘codependency’ expanded gave 306 on 20/9/07. A search of Medline using the MeSH term ‘impulsive behaviour’ in its exploded and expanded form on 20/9/07 gave 4,938 references, while the MeSH term ‘codependency (psychology)’ in its expanded form gave 158 references.


these, as discussed below, were by the same author or reviewing or interviewing that author. In analysing these references, possibly because of the diffuse nature of the concept of love addiction, it was more difficult than usual to apply the exclusion criteria to the abstracts, and so greater effort went into sourcing the original material. As go to page hundred and 10 expected there were various conceptions of love addiction, for example:

A patient is described who is addicted to ‘falling in love,’ which he significantly calls his ‘bubble.’ The dynamics of drug or chemical addiction in its intolerable need for a fix, and the lows and highs that the S feels before and after the craving is met, are repeated here in the patient’s need to fall in love. Like the drug addict, the S is indifferent to the social upheavals his addiction causes those near to him. The early life of the S is portrayed as a critical determinant in his craving for an endless series of love relationships.\(^{709}\)

With regard to works that distanced themselves from the idea of love addiction as a disease, there were three abstracts of works written by Peele and Brodsky,\(^{710}\) two abstracts which talked directly about their work,\(^{711}\) two which followed directly Peele’s conception of love addiction,\(^{712}\) and two that appeared to broadly agree with this conception.\(^{713}\) The most cited reference in the psychINFO database was one by


Peele and Brodsky, which had nine citations, followed by an article by Paul H. Wright and Katherine D. Wright cited eight times that was primarily about codependency, which they attempted to differentiate from Peele’s conception of love addiction.

By contrast, the twelve-step disease model of love addiction was represented by two books by Griffin-Shelley, a review of each of these books, and one article by another author.

One author seemed happy to both quote Peele with approval and advocate twelve-step treatment. For the rest of the abstracts the standpoint was not clear.

There were four articles (though two are by the same author) with a strong psychoanalytical or psychodynamic influence, one reference appeared to take a biological view of love addiction, one reviewed a book which looked at love from a cognitive behavioural stand point, and one reference was to a love addiction scale. There was one piece of empirical research.

**DSM**

There was no reference to love addiction in any of the editions of DSM.

**Comprehensive Textbook of Psychiatry**

The first mention of co-dependency in the Comprehensive Textbook of Psychiatry was

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in Volume 6,\textsuperscript{725} which also discussed sex addiction for the first time in its own sub-
chapter that though it did not explicitly mention love did reference Sex and Love
Addicts Anonymous.\textsuperscript{726} Volume 7 also briefly mentioned co-dependence (but only as
part of the substance related disorders chapter),\textsuperscript{727} and had a section on sex addiction
(though this was given less prominence than in the previous edition), which again
referenced Sex and Love Addicts Anonymous.\textsuperscript{728} Volume 8 had a largely identical
reference to co-dependency but sex addiction now had a chapter to itself, while the
reference to Sex and Love Addicts Anonymous had gone.\textsuperscript{729}

Other than as noted above, there was no mention of love addiction in any of these
volumes.

**Other Psychiatric Textbooks**
In other psychiatric text books there was one reference to co-dependency in the
context of treating alcoholics in the *Introductory Textbook of Psychiatry*.\textsuperscript{730}

**Psychology Textbooks**
There was no reference to love addiction in any of the clinical psychology textbooks.

**Conclusion**
Love addiction is a broad concept with a striking overlap with the old idea of
lovesickness. It has grown up outside the medical mainstream, primarily in the
popular psychological press and the addiction field, alongside related disease concepts
such as co-dependency and sex addiction. Only the latter appears to have gained any
significant foothold in psychiatric thinking.

\textsuperscript{725}Harold Kaplan, Benjamin Sadock (eds), *Comprehensive Textbook of Psychiatry*, 6th ed., Baltimore:
Williams and Wilkins, 1995, pp. 772, 1607.
\textsuperscript{726}Harold Kaplan, Benjamin Sadock (eds), *Comprehensive Textbook of Psychiatry*, 6th ed., Baltimore:
\textsuperscript{727}Benjamin Sadock, Virginia Sadock (eds), *Comprehensive Textbook of Psychiatry*, 7th ed.,
\textsuperscript{728}Benjamin Sadock, Virginia Sadock (eds), *Comprehensive Textbook of Psychiatry*, 7th ed.,
\textsuperscript{729}Benjamin Sadock, Virginia Sadock (eds), *Comprehensive Textbook of Psychiatry*, 8th ed.,
\textsuperscript{730}Nancy C. Andreason, Donald W. Black, *Introductory Textbook of Psychiatry*, 2nd ed., Washington
OBSESSIONS AND OBSESSIVE COMPULSIVE DISORDER

It has been suggested that there is a link between on the one hand obsessions and obsessive compulsive disorder (OCD), and on the other love and lovesickness. This link is the focus of this chapter.

Modern Conceptions
According to DSM-IVR obsessions are: ‘persistent ideas, thoughts, impulses, or images that are experienced as intrusive and inappropriate and that cause marked anxiety and distress.’ This definition was given in the section describing OCD and indeed in modern diagnostic systems, while obsessions are possible symptoms of a number of illnesses, they are most closely associated with OCD.

In MeSH OCD is defined as: ‘An anxiety disorder characterized by recurrent, persistent obsessions or compulsions. Obsessions are the intrusive ideas, thoughts, or images that are experienced as senseless or repugnant. Compulsions are repetitive and seemingly purposeful behavior which the individual generally recognizes as senseless and from which the individual does not derive pleasure although it may provide a release from tension.

Background History
Many ancient physicians (Galen, Ibn Sina) listed obsessional thoughts of the beloved as a core feature of lovesickness, although the word obsession itself possibly was not used in a medical context before the end of the eighteenth century.

Obsessive-compulsive disorder may first have been described as a psychiatric disorder by Esquirol as a form of monomania. Rather than a variant of monomania, however, throughout the nineteenth century it was usually seen as a type of depressive disorder before being reformulated by Freud as an ‘obsessive-neurosis’ caused by intra-psychic conflicts. From the mid-twentieth century behavioural and biological models of the disease became increasingly influential.

This illness has a number of striking similarities with romantic love, including the obsessional thinking, grooming behaviour, magical thinking, and anxiety. But do these similarities lead to an overlapping of concepts?

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737 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845.
Databases

Question: What was the connection between obsessive compulsive disorder or obsessions and romantic love during this period?

The psychINFO database was searched using the Thesaurus terms ‘obsessions’737 or ‘obsessive compulsive disorder’738 in their expanded forms (these terms cannot be exploded), combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the MeSH terms ‘obsessive behavior’739 or ‘obsessive-compulsive disorder’740 in their expanded forms (these terms cannot be exploded), combined with the restricted MeSH term ‘love’ or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed.741 The abstracts of these references were reviewed and those not broadly about the connection between romantic love and obsessions or obsessive compulsive disorder were removed.

This search produced seventeen742 references with the years of publication ranging from 1980 to 2006.743 Three of the psychoanalytic references were by the same

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738Definition: ‘Disorder characterized by recurrent obsessions or compulsions that may interfere with the individual’s daily functioning or serve as a source of distress.’ Introduced in 1985. In 2000, this term replaced the discontinued term ‘obsessive compulsive neurosis’. Tree information: Broader, ‘anxiety disorders’; Narrower, nil; Related, various disorders and behaviours.
739Definition: ‘Persistent, unwanted idea or impulse which is considered normal when it does not markedly interfere with mental processes or emotional adjustment.’ Introduced in 1991. Prior to this it was categorised under compulsive behaviour 1975-90. Tree Information: Broader, ‘behavioral symptoms’; Narrower, nil; Related, various psychiatric symptoms and behaviours.
740Definition: ‘An anxiety disorder characterized by recurrent, persistent obsessions or compulsions. Obsessions are the intrusive ideas, thoughts, or images that are experienced as senseless or repugnant. Compulsions are repetitive and seemingly purposeful behavior which the individual generally recognizes as senseless and from which the individual does not derive pleasure although it may provide a release from tension.’ Year Term Introduced: 81; previously was ‘neuroses, obsessive-compulsive’ 1963-80. Tree Information: Broader, ‘anxiety disorders’; Narrower, nothing; Related, other anxiety disorders.
741Both the psychoINFO and the Medline databases were searched 03/08/07.
742To put this in context on 20/9/07 there were 6,276 references in English in psychoINFO relating to the Thesaurus terms ‘obsessions’ or ‘obsessive compulsive disorder’ in their expanded forms, and 6,325 references in English in Medline relating to the MeSH terms ‘obsessional behaviour’ or ‘obsessive compulsive disorder’ in their expanded forms.
author with seemingly overlapping research,\textsuperscript{744} and two references were commentaries on another two of the references.\textsuperscript{745} There was a clear trend towards a biological-evolutionary perspective in the more recent references, with five out of the most recent six being of this type.\textsuperscript{746}

There were five references from psychINFO\textsuperscript{747} with multiple citations, three of which


looked at the link between OCD and love from a biological-evolutionary perspective; \textsuperscript{748} while the other two had a forensic perspective on obsessions. \textsuperscript{749}

The research linking OCD\textsuperscript{750} and love from a biological-evolutionary perspective did not see OCD as a pathological form of romantic love, but rather suggested that the biological hard wiring of the brain formed by evolution to mould the thoughts and behaviours of romantic love (itself possibly modelled on the maternal-infant bond) could serve as a model for understanding OCD thoughts and behaviours. One article about sexually transmitted infections (STI), \textsuperscript{751} while not specifically saying love was a mental illness, stated love overcomes rational thought processes:

We hypothesize that human beings are biologically programmed to fall in love and bond in powerful relationships, which, at least in the short term, prevents them from using knowledge and cognitive strategies to prevent STI acquisition. We compare this with obsessive thoughts and compulsive behaviours seen in obsessive-compulsive disorders. We suggest how romantic love might overwhelm logical thought processes to cause a deterministic and non-logical response to have sex and thus acquire STIs. An understanding of this concept may help us humans to be more insightful and thoughtful about STI acquisition. \textsuperscript{752}

Papers looking at the forensic aspects of obsessions\textsuperscript{753} talked about love-obsessions


and linked this concept with stalking, and as a milder form of erotomania.

There were also several articles taking a psychoanalytical approach to love-obsessions.\textsuperscript{754} For example:

Presents 5 cases in which unrequited love reached the proportion of an obsession, so intense and so prolonged as to be a primary reason for entering treatment. A 34-yr-old divorced professional woman became obsessed with a colleague with whom she had a 3-yr intermittent sexual relationship. A 37-yr-old divorced female business executive had a short-lived affair with a man who subsequently married and divored, and showed no interest in her despite her persistent efforts. A 24-yr-old TV actress would not give up a lover of 3 wks who abandoned her for other women. A 41-yr-old divorced female choreographer developed an obsession for her male therapist of 10 yrs. A 53-yr-old widow and professor became obsessed with a graduate student (25 yrs her junior) after a brief idyllic love affair. Certain features of the obsession show clear resemblances to aspects of the infant-mother relationship.\textsuperscript{755}

These papers focussed on understanding and treating sufferers in love with ‘the rejecting beloved’ -- in other words unrequited love. One author noted addictive/depressive traits in these patients.\textsuperscript{756} Two articles discussed patients falling in love with their therapists,\textsuperscript{757} and in one, love-obsessions were likened once again to a mild variant of erotomania.\textsuperscript{758}

\textbf{DSM}

Obsessions were described in all the editions of the DSM, usually (as outlined below) in the section on OCD, or that disease’s precursors. Somewhat confusingly, there is

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also a disease category obsessive-compulsive personality disorder (known by different names in earlier volumes) though this is not characterised by obsessions, but rather a pattern of preoccupation with orderliness, perfectionism, and control.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 4th ed., revised, Washington, D.C.: American Psychiatric Association, 2000, p. 685.}

In DSM-I obsessions were not described separately, but rather as part of an obsessive compulsive reaction: ‘In this reaction the anxiety is associated with the persistence of unwanted ideas and of repetitive impulses to perform acts which may be considered morbid by the patient…. This category includes many cases formerly classified as "psychasthenia".’\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 1st ed., Washington, D.C.: American Psychiatric Association, 1952, p. 33.} Similarly in DSM-II obsessions had no stand-alone definition, but were rather described as part of what was then called obsessive-compulsive neurosis:

This disorder is characterized by the persistent intrusion of unwanted thoughts, urges, or actions that the patient is unable to stop. The thoughts may consist of single words or ideas, ruminations, or trains of thought often perceived by the patient as nonsensical.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 2nd ed., Washington, D.C.: American Psychiatric Association, 1968, p. 40.}

This definition of the disease and the characteristic obsessive thoughts changed little in subsequent editions. By DSM-III obsessions were defined separately as well as part of OCD, which was now known by its modern name -- obsessive compulsive disorder -- although the underlying concept remained the same.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 3rd ed., Washington, D.C.: American Psychiatric Association, 1980, pp. 234-35, 365.} DSM-IIIIR again gave its definition of obsessions as part of the section on OCD, which was described in a similar way to the previous volume.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 3rd ed., revised, Washington, D.C.: American Psychiatric Association, 1987, pp. 245-47.} DSM-IV gave a near identical definition and a similar clinical description of obsessive compulsive disorder.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 4th ed., Washington, D.C.: American Psychiatric Association, 1994, pp. 417, 422.} There was no change in DSM-IVR.\footnote{American Psychiatric Association, American Psychiatric Association Diagnostic Manual of Mental Disorders, 4th ed., revised, Washington, D.C.: American Psychiatric Association, 2000, pp. 456-63.}

In none of the editions of DSM was love connected with obsessions, or OCD.

Comprehensive Textbook of Psychiatry

OCD

Volume 1 of the Comprehensive Textbook of Psychiatry followed DSM-I with ‘obsessive-compulsive reaction’ which appeared almost identical to the later OCD. There was a largely psychodynamic explanation of the illness.\footnote{Alfred Freedman, Harold Kaplan (eds), Comprehensive Textbook of Psychiatry, 1st ed., Baltimore: Williams and Wilkins, 1967, pp. 912-28.} The subsequent volumes continued to mirror the DSM in their conception of the disease, which did not change significantly in terms of the clinical description, although there was an
increasing emphasis on the biological models of causation.\textsuperscript{767}

**Obsessions**

Similarly, the conception of an obsession as a stand-alone symptom does not seem to change much in the *Comprehensive Textbook of Psychiatry* over this period. Compare the definition in Volume 2: ‘the pathological presence of a persistent and irresistible thought, feeling, or impulse that cannot be eliminated from consciousness by any logical effort’;\textsuperscript{768} to that in Volume 4: ‘pathological persistence of an irresistible thought, feeling, or impulse that cannot be eliminated from consciousness by logical effort’;\textsuperscript{769} and to that in Volume 8: ‘persistent and recurrent idea, thought, or impulse that cannot be eliminated from consciousness by logical reasoning; obsessions are involuntary and ego-dystonic.’\textsuperscript{770}

This symptom was most closely associated with OCD and its precursors, but turned up in many illnesses. However, the only reference to love in either the discussion of OCD or obsessions in general came in Volume 5 which suggested that obsessions ‘can be devoted…to love’.\textsuperscript{771}

**Other Psychiatric Textbooks**

In none of the other psychiatric textbooks were obsessions linked with love.

**Clinical Psychology Textbooks**

Obsessions and obsessive compulsive disorder were not looked for in the review of clinical psychology textbooks.

**Conclusion**

Romantic love was not directly connected with OCD in the literature, being rather a suggested biological model for how OCD might work. There was some acknowledgement in the literature that people experiencing romantic love will have obsessions and in these can be pathological -- particularly if one is looking at the psychodynamic and forensic psychiatry literature. Indeed, this symptom of obsession


appeared to be linked with many of the categories of morbid love discussed here -- stalking, erotomania, or addiction.
AFFECTIVE AND RELATED DISORDERS

As previously outlined, lovesickness has long been associated with the diseases of mood, such as mania and melancholy. Lovesickness has variously been seen as a normal state which could be confused with a serious disorder of the mood, a pathway to melancholia or mania, a subtype of melancholia, and an illness related to mood problems. During the nineteenth or twentieth centuries this connection between romantic love and these disorders of mood appears to have faded, but it is possible that some connection remains.

Modern Conceptions
Modern diagnostic systems have tended to see melancholia and mania as severe forms of a wider group of disorders gathered together under the broad heading of affective disorders (a term coined by the psychiatrist Henry Maudsley 1835-1918), in which disorders of mood (and in particular sadness and elation) are thought to be central. A different but related disease category is currently called the adjustment disorders. These are a psychological reaction to a stressful event (often, but not always a lowering of mood), severe enough to be ‘clinically significant’, but insufficient to meet diagnostic criteria for another disease.

History of the Affective/Mood Disorders
The symptoms and course of melancholia and mania were described in ancient Greek and Roman medicine in a way very similar to the affective disorders in modern medicine, though with less importance ascribed to the mood symptoms, and a humeral model of aetiology and treatment. The emphasis on mood symptoms may have begun in the nineteenth century with Esquirol, who also abandoned the humeral model.

History of Adjustment Disorders
The idea of a psychological reaction to a stressful event (though using different terminology) is probably very old. In modern psychiatry, this idea has been given different formulations. During the twentieth century many psychiatrists believed that there were two fundamentally different kinds of depressive illness, one arising from within (a physiological disease model) called endogenous depression, and one arising because of outside stressors (an ontological conception) called reactive depression. This distinction, however, was not backed by the bulk of research, and after DSM-III’s move to non-aetiological diagnosis the concept of reactive depression has lost influence. The idea that stressful events can cause depression remains in the form of

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775 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845.
776 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845.
DSM-II's transient situational disturbance and adjustment disorder in later DSMs.

**Databases**

**Question:** What was the connection between mood disorders, including related adjustment disorders, and romantic love during this period?

The psychINFO database was searched using the Thesaurus term 'affective disorders'\(^{778}\) in its expanded and exploded form, combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. Then the Thesaurus term 'adjustment disorders'\(^{779}\) in its expanded form (the term could not be exploded) was combined with both the Thesaurus terms 'love' and 'romance' in their restricted forms. The Medline database was searched using the MeSH term 'mood disorders'\(^{780}\) in its expanded and exploded form combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. Finally, Medline was searched using the MeSH term 'adjustment disorder'\(^{781}\) in its expanded form (it cannot be exploded) combined with the MeSH term 'love' in its restricted form or the keywords 'romance' or 'romantic'. The results of these searches were combined (keeping the adjustment disorders separate) and double-ups removed.\(^{782}\)

The abstracts of these references were reviewed looking for the concepts of romantic love related to the affective disorders or adjustment disorders: as a differential, as a cause, or as a subtype. References were excluded if they looked only at romantic relationships rather than romantic love, or studied how affective states, such as depression, have an affect on love.

The search for affective disorders and romantic love produced five references\(^{783}\) published between the years 2003 and 2007.\(^{784}\) These included: a book about

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\(^{779}\) Definition: ‘Maladaptive reaction to psychosocial stressors which impairs social or occupational functioning. Usually a temporary condition that remits after new levels of adaptation are obtained or stressors have been removed.’ Introduced in 1994. Tree Information: Broader, ‘mental disorders’; Narrower, nil; Related, nil significant.


\(^{781}\) Definition: ‘Maladaptive reactions to identifiable psychosocial stressors occurring within a short time after onset of the stressor. They are manifested by either impairment in social or occupational functioning or by symptoms (depression, anxiety, etc.) that are in excess of a normal and expected reaction to the stressor.’ History Notes: term introduced in 1981, replacing 'reactive depression' which was used 1966-80. Synonyms: anniversary reaction; depression, reactive; reactive disorders; transient situational disturbance; adjustment disorder; anniversary reactions; depressions, reactive; disorder, adjustment; disorder, reactive; disorders, adjustment; disorders, reactive; disturbance, transient situational; disturbances, transient situational; reaction, anniversary; reactions, anniversary; reactive depression; reactive depressions; reactive disorder; situational disturbance, transient; situational disturbances, transient; transient situational disturbances. Tree information: Broader, ‘mental disorders’; Narrower, nothing; Related, many disorders (including mood disorders).

\(^{782}\) All the searches in psychINFO and Medline were done 23/2/08.

\(^{783}\) To put this in some kind of context on 25/2/08 in psychINFO the Thesaurus term 'affective disorders' expanded and exploded produced 72,174 references, while the keyword 'adjustment disorder' gave 333. On 25/2/08 in Medline the MeSH term 'mood disorders' expanded and exploded produced 79,386 references, while the MeSH term 'adjustment disorder' expanded (it cannot be exploded) on 26/2/08 gave 3,474.

lovesickness by Frank Tallis;\(^{785}\) a chapter in a book published in 2003\(^{786}\) in which depression as a consequence of unrequited adolescent love is mentioned briefly; two historical articles,\(^{787}\) and one on the similarity between love and hypomania (a mild form of mania) in adolescents;\(^{788}\)

Compared to controls, adolescents in early-stage intense romantic love had increased scores on a hypomania scale, and recorded increased positive mood states in the mornings and in the evenings. These adolescents also recorded fewer hours of sleep with increased subjective sleep quality, lowered daytime sleepiness, and heightened concentration during the day.\(^{789}\)

The search looking at adjustment disorder and romantic love produced one\(^{790}\) abstract, from a historical article in 2007\(^{791}\) which examined the diagnosis of lovesickness by the Persian physician Avicenna, and suggested that this was the first description of an adjustment disorder.

**DSM**

**Depression and Mania**

In DSM-I there was a concept formulated in psychodynamic terms, which lay somewhere between depression and adjustment disorder with depressed mood -- a depressive reaction (also called reactive depression)\(^{792}\) -- which could be caused by 'the loss of love'. In DSM-II, while this concept had disappeared, there was the similar concept of depressive neurosis,\(^{793}\) a disorder which was 'manifested by an excessive reaction of a depression due to an internal conflict or to an identifiable

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\(^{789}\)To put this in some kind of context, on 25/2/08 in psychINFO the keyword 'adjustment disorder' gave 333 references. While on 26/2/08 in Medline the MeSH term 'adjustment disorder' expanded (it cannot exploded) gave 3,474.


event such as the loss of a love-object…’ (the latter was a psychodynamic term not necessarily suggesting the loss of someone that the depressed person was in love with). In DSM-III under ‘Age-Specific Features’ it suggested that adolescent boys suffering from a major depressive episode may be ‘particularly sensitive to rejection in love relationships’. In DSM-IIIR there was an identical reference to adolescent boys’ sensitivity while depressed; but while marital separation and divorce were mentioned as predisposing factors for depression in adults, love was not. Similar DSM-IV discussed marital separation and divorce, but not the loss of love, as causes of depression. The DSM-IVR mentioned marital problems as an ‘associated feature’ of depressive episodes. In none of the volumes was the connection made between love and mania or bipolar disorder.

Adjustment Disorder (and related disorders)
In DSM-II ‘ transient situational disturbances' made no mention of love, marriage problems, or divorce. In DSM-III the term ‘adjustment disorder' appeared for the first time, but while marital problems and divorce were suggested as possible causes, love problems was not. DSM-IIIR was similar in mentioning only divorce and marital problems as predisposing factors. DSM-IV said that adjustment disorder could be due to the ‘termination of a romantic relationship’, but love was again not mentioned. Similarly DSM-IVR when looking at the causes of adjustment disorders mentioned the ‘termination of a romantic relationship’ as a cause.

Comprehensive Textbook
Depression and mania
In Volume 1 of the Comprehensive Textbook of Psychiatry in the description of the disease ‘psychotic depressive reaction’ ‘loss of love’ was noted as a cause. By Volume 2 this disease had gone, and while there was a reference to divorce and marital problems as causes of depression there was no mention of love. In Volume 3 there were allusions to the Freudian conception of depression caused by the loss of

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the love-object. There was a similar allusion in Volume 4, and though there was also a reference to Burton’s *The Anatomy of Melancholy* and Goethe’s *The Sorrows of Young Werther* when discussing the history of depression, there was no mention of love. Volume 5 continued to note Freud’s theory of depression caused by loss of a love-object, but otherwise it did not mention love in connection with depression. Neither Volume 6 nor Volume 7 alluded to romantic love in connection with depression. Volume 8 mentioned Freud’s theory of depression, and in the section looking at the history of the diagnosis of depression, Burton’s concept of love melancholy.

No connection was made between love and mania or bipolar disorder.

**Adjustment Disorder**

There was no reference to adjustment disorders in Volume 1 of the *Comprehensive Textbook of Psychiatry.* In Volume 2 there was the disease of transient situational disturbance, which had marriage problems and divorce as possible precipitating factors, but not love problems. While Volume 3’s discussion of adjustment disorder did not specifically mention romantic love it used clinical examples (an anxious young man whose girlfriend had left him for instance) suggesting a possible connection. Neither the discussion of adjustment disorder in Volume 4 nor Volume 5 mentioned romantic love as a precipitating factor. While Volume 6 talked about boyfriend-girlfriend problems, marital problems, and divorce as possible causes of adjustment disorder, romantic love was not specifically mentioned. Volume 7 made a brief mention of marital problems and ‘boyfriend or girlfriend’

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problems, but the latter was missing in Volume 8 (which did however mention marital problems).

**Other Psychiatric Textbooks**

There were few references to a link between romantic love and affective or adjustment disorders in other psychiatric textbooks. In the *Introductory Textbook of Psychiatry* 'the person rejected by lover or spouse' was given as one example of someone who might suffer an adjustment disorder, and according to the *Harvard Guide to Psychiatry* the break up of a romantic relationship may lead to an adjustment disorder.

**Clinical Psychology Textbooks**

Similarly, in clinical psychology textbooks the link between romantic love, and affective and adjustment disorders was rarely made. A 1950 textbook of abnormal psychology saw disturbed love as 'intimately involved in the psychopathology of both neurosis and psychosis’, but this was a very Freudian perspective on love, where sex was emphasised. Abraham H. Maslow and Be’la Mittelmann’s *Principles of Abnormal Psychology* listed ‘loss of love’ as a cause of a ‘depression reaction’, while *Abnormal Psychology* saw the loss of a ‘dating relationship’ as a cause of depression.

**Conclusion**

By the second half of the twentieth century and early twenty first century, the link between romantic love and various forms of affective disorders had almost completely gone. What connections there were, seemed as much about relationships as love. As expected, Freudian concepts of love and depression were prominent towards the beginning of this period, but had faded towards the end. There were also hints that adjustment disorder with depressed mood was something adolescents suffered from when unsuccessful in romantic love.

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DISEASES OF HYPERSEXUALITY

Introduction
It has been suggested that two of the sub-categories that lovesickness was subdivided into from the enlightenment on, were the diseases of hypersexuality -- nymphomania and satyriasis. This chapter will outline the background history of these disease concepts and then examine to what extent they represent modern forms of lovesickness.

Modern Definitions
DSM IVR did not recognize hypersexuality, nymphomania or satyriasis, and while ICD-10 had 'Excessive sexual drive disorder' as a classification for nymphomania and satyriasis it said: 'No research criteria are attempted for this category. Researchers studying this area are recommended to design their own criteria.' However, the Seventh Edition of the Comprehensive Textbook of Psychiatry defined nymphomania (furor uterinus, hypersexuality, sex-addiction) as 'excessive or pathological desire for coitus in a woman' and satyriasis (Don Juanism, hypersexuality, sex addiction) as men 'who appear to be hypersexual, as shown by their need to have many sexual encounters or conquests…'  

Historical Background
Nymphomania, or hypersexuality in women, is a convincing example of how changing cultural and social attitudes shape diagnostic practice. Western societies' changing ideas about women's sex-drive, appear to mirror changes to the diagnosis. Moreover fluctuating interest in women's sex-drive is reflected in the attention to the diagnosis of nymphomania. By contrast there is a consistently lower-level of interest in diseases of hypersexuality in men (and so this review will concentrate on hypersexuality in women, referencing hypersexuality in men were possible). At times there appears to be an overlap between the disorders of hypersexuality and excess love, and this may also reflect changing attitudes about the connection between love and sex, though these links appear less obvious and more complex.

Ancient Greek ideas about the humours lent themselves to the view that women had higher sex drives than men, and therefore hypersexuality in women may not have been viewed as anything very remarkable. However, Galen believed that 'uterine fury' could occur among young widows, which could drive them to madness. There did not appear to be, however, a clear connection with lovesickness.

The concept of lovesickness was increasingly sexualised during the Renaissance. Jacques Ferrand (intellectually very much a ‘lumper’ rather than a ‘splitter’) included uterine fury and satyriasis concepts under the broader heading of erotic melancholy.

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829 Mary E. Fissell, ‘Gender, Sex, and Lovesickness’, Women’s Health in Primary Care, 2:1(1999), 66.
However, even Ferrand kept them in a separated sub-category.\footnote{Donald A. Beecher, Massimo Ciavolella, \textit{A Treatise on Love Sickness, by Jaques Ferrand}, Donald A. Beecher, Massimo Ciavolella (translators and eds), New York: Syracuse University Press, 1990, pp. 142-43.}

At some period, probably during the eighteenth century, there was a radical reversal in the views about women’s sexuality, so that it came to be believed they had lower sex-drives than men. In this environment a diagnosis of nymphomania became more likely.\footnote{Carol Groneman, \textit{Nymphomania: a History}, New York: Norton and Company, 2000, p. xviii.} Nomenclature changed at the same time, and by the end of the eighteenth century erotomania, once a synonym for lovesickness, was more commonly used as a broad category for illnesses of hypersexuality such as nymphomania or satyriasis.\footnote{G.E. Berrios and N. Kennedy, ‘Erotomania: a Conceptual History’, \textit{History of Psychiatry}, 13:52 Part 4 (December 2002), pp. 381-400.}

A seminal work in the medical conception of nymphomania was the 1771 treatise \textit{Nymphomania, or a Dissertation Concerning the Furor Uterinus} by the French physician D.T. de Bienville.\footnote{D.T. de Bienville, \textit{Nymphomania or, a Dissertation concerning the Furor Uterinus}, English ed., London: J. Bew, 1775.} His description of nymphomania in a woman resembled a sexualised version of past descriptions of lovesickness and erotic melancholy. The latter he mentioned briefly (and his translator referenced Jacques Ferrand), though primarily to emphasise that erotic melancholy was a different condition. According to de Bienville the cause was the ‘disorganised movement of fibres in the female organs’.

\footnote{D.T. de Bienville, \textit{Nymphomania or, a Dissertation concerning the Furor Uterinus}, English ed., London: J. Bew, 1775, pp. 28-49.}

\footnote{Étienne Esquirol, \textit{Mental Maladies}, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845, p. 335.}


Esquirrol made a clear distinction between nymphomania and satyriasis on one hand, and on the other his erotic monomania.\footnote{D.T. de Bienville, \textit{Nymphomania or, a Dissertation concerning the Furor Uterinus}, English ed., London: J. Bew, 1775.} For him the first two were physical diseases located in the sexual organs leading to promiscuous sexual activity, while erotic monomania was a disease of the brain with feelings of love and sexual desire, but fixed on one object.

After Esquirrol, while the word erotomania continued to be used for both disorders of hypersexuality and love (increasingly delusional love), his division of these two concepts continued.

However, underlying nature of this division (between the physical and mental disorders) was by no means universally accepted, and throughout the nineteenth century there was some debate about whether nymphomania was a physical disorder located in the genitals or a mental one having some connection to the brain.\footnote{Carol Groneman, \textit{Nymphomania: a History}, New York: Norton and Company, 2000, pp. 7-9.} In either case, nymphomania continued to be a popular diagnostic concept (if a very infrequent diagnosis) throughout the century.\footnote{G.E. Berrios, N. Kennedy, ‘Erotomania: a Conceptual History’, \textit{History of Psychiatry}, 13:52 Part 4 (December 2002), pp. 381-400.} Satyriasis was seen as an equivalent male disease, which was however less common and less severe.\footnote{Carol Groneman, \textit{Nymphomania: a History}, New York: Norton and Company, 2000, pp. 11-13.}
Sexual mores changed rapidly in the twentieth century and so did the disease concept of hypersexuality, particularly for women. The term hypersexuality itself probably derives from the early twentieth century as an attempt to find a more value free scientific term. From psychoanalysis in the first half of the twentieth century came the idea that sufferers of nymphomania were not really enjoying the sex, merely searching for an escape from unhappiness. Research such as the two Kinsey reports, in 1948 and 1953, appear to have gradually undermined enthusiasm for diseases of hypersexuality and there were calls for the diagnosis to be abandoned. There were also some attempts to redefine the illness -- the problem was not with a high sex drive, but rather a compulsion to have promiscuous sex without love because of some other psychological deficit, such as being starved of affection. Nymphomania was in this case defined not by excessive love, but rather a love deficit.

This new definition, while not particularly popular in medical circles, was very easily adapted to twelve-step disease conceptions and re-emerged as sex addiction (discussed in Love Addiction), a disease concept now more commonly applied to men.

**Databases**

Question: What was the connection between the diseases of hypersexuality and romantic love during this period?

The psychINFO database was searched using the Thesaurus terms ‘hypersexuality’ and ‘sexual addiction’ in their expanded forms, combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. PsychINFO Thesaurus does not recognize the terms ‘furor uterinus’, ‘satyriasis’ or ‘Don Juanism’ or ‘nymphomania’ so these were used as keywords combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. In Medline there were no MeSH terms for ‘furor uterinus’ or ‘satyriasis’ or ‘Don Juanism’ or ‘nymphomania’ or ‘hypersexuality’ or ‘sex addiction’ so these were entered instead as keywords combined with the MeSH term ‘love’ in its restricted form or the key words ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed and those not broadly about the connection between romantic love and these various forms of hypersexuality were removed.

This search produced no references.
DSM

Changing views of nymphomania were reflected in the successive editions of the DSM. Nymphomania was listed under ‘Supplementary Terms’ as a sexual deviation in DSM-I\(^847\) (satyriasis, hypersexuality, and Don Juanism were not mentioned), none of these concepts were listed in DSM-II. By DSM-III nymphomania had become a psychosexual disorder, along with Don Juanism defined as: ‘distress about a pattern of repeated sexual conquests with a succession of individuals who exist only as things to be used’\(^848\) suggesting a shift away from hypersexuality as the main symptom. This edition also had hypersexuality as a symptom of mania.\(^849\) DSM-III dropped the names nymphomania and Don Juanism and relegated the concept to an example in the residual Sexual Disorder Not Otherwise Specified category, without a name, but with a definition very similar to those given previously for nymphomania or Don Juanism except that sexual addiction was also mentioned.\(^850\) In both DSM-IV and DSM-IVR there was no reference to nymphomania, satyriasis or the other names for the diseases of hypersexuality. However, under Sexual Disorder Not Otherwise Specified one unnamed subtype was described as: ‘distress about a pattern of repeated sexual relationships involving a succession of lovers who experienced by the individual only as things to be used.’ This was exactly the terminology previously used to describe diseases of hypersexuality.\(^851\)

In none of these editions was hypersexuality linked with love.

Comprehensive Textbook of Psychiatry

There was no reference to the diseases of hypersexuality in Volume 1 of the Comprehensive Textbook of Psychiatry.\(^852\) By Volume 2 there were definitions for nymphomania (excessive need for coitus in a female), satyriasis (excessive need for coitus in a male), and erotomania (pathological preoccupation with sex).\(^853\) It was postulated that while nymphomania and Don Juanism were sexual disorders, they could also be a form of depressive acting out.\(^854\) Volume 3 had identical definitions for nymphomania and satyriasis,\(^855\) which were discussed under the headings

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hypersexuality, and Don Juanism. Volume 3 also used the name erotomania for the 'pathological preoccupation with sexual activities or fantasies'. In Volume 4 nymphomania and satyriasis were categorised under the same heading as erotomania, but defined in the same way as in Volumes 2 and 3. Like Volume 2, Volume 4 envisioned nymphomania and (in this case) Don Juanism as defences against depression, and included them in the 'entire spectrum of addictive states'. In Volume 5 nymphomania and satyriasis continued to be defined as sexual compulsions, but erotomania was no longer a synonym for hypersexuality. In Volume 6 nymphomania and satyriasis continued to be defined as a compulsive need for coitus. It was also noted that nymphomania, and indeed Don Juanism are sometimes ‘seen as a form of sex-addiction’. In the case of nymphomania it was postulated that the aetiology may involve the woman having ‘intense fear of loss of love’. Sex-addiction was mentioned for the first time, and had its own subchapter. In Volume 7 a man suffering Don Juanism was defined as one who 'needs to have many sexual encounters or conquests' in order to 'mask deep feelings of inferiority. Some have unconscious homosexual impulses, which they deny by compulsive sexual contact with women.’ While nymphomania 'signifies excessive or pathological desire for coitus in a woman…. The woman often has an intense fear of loss of love. She attempts to satisfy her dependency needs, rather than to gratify her sexual impulses through her actions. It is sometimes classified as a form of sex addiction’. There was also a short section on sex addiction. Elsewhere in the volume the term satyriasis was still used. Volume 8 was the same in its treatment of hypersexuality as Volume 7, except there was now a whole chapter on sex addiction.

Apart from the linking of nymphomania to a lack of love (which suggests

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companionate love more than romantic love) in some definitions, there is no connection between these diseases of hypersexuality in the *Comprehensive Textbook of Psychiatry* and love.

**Other Psychiatric Textbooks**

One other psychiatric textbook that referenced nymphomania, associated it with hypersexuality but not love,\(^\text{870}\) while a 1960 textbook took the unusual tack of suggesting that nymphomania was an early sign of schizophrenia.\(^\text{871}\)

**Clinical Psychology Textbooks**

Nymphomania was rarely referenced in textbooks of clinical psychology. In early textbooks it is seen as purely a sexual disorder,\(^\text{872}\) while a 1972 textbook suggested an underlying cause of nymphomania was the desire to be loved.\(^\text{873}\) There were no other references to love nor to diseases of male hypersexuality.

**Conclusion**

The review of the textbooks gives an interesting perspective on the changing ideas about hypersexuality, particularly in women. And while the disease concept of nymphomania (and its related disorders) has been challenged and changed, the idea of a disease of hypersexuality remains in the eighth edition of the *Comprehensive Textbook*, in the ICD-10, in DSM-IVR (as a one line unnamed concept), and the more popular idea of sex-addiction, which (unlike love addiction), has its own academic journal.\(^\text{874}\)

However, the textbooks seem in complete agreement with the database searches that nymphomania (and the related disorders of hypersexuality) was no longer a synonym for lovesickness and had no connection with romantic love, except for the rather tenuous link which at times suggested nymphomania may be caused by a woman looking for love, whether companionate or romantic.

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\(^{874}\)Sexual Addiction and Compulsivity: the *Journal of Treatment and Prevention*, New York: Brunner/Mazel.
PARTNER RELATIONAL PROBLEM

Introduction
Marital and similar relationship problems, which would seem might potentially have a connection to morbid love, historically have not been categorized as diseases, and indeed do not fit easily into traditional disease models. However, a category that occurs in DSM-IVR under the heading 'Other Conditions That May Be a Focus of Clinical Attention' is partner relational problem.

This category should be used when the focus of clinical attention is a pattern of interaction between spouses or partners characterized by negative communication (e.g., criticisms), distorted communication (e.g., unrealistic expectations), or noncommunication (e.g., withdrawal) that is associated with clinically significant impairment in individual or family functioning or the development of symptoms in one or both partners.875

Databases
Question: Was there any connection during this period between disease categories involving relational problems and romantic love?

In the psychINFO Thesaurus there was no 'partner relational problem' so the psychINFO database was searched using the Thesaurus term 'marital conflict'876 in its expanded form (it cannot be exploded) and the keywords ‘partner relational problem’ combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. The Medline database was searched using the MeSH term 'family conflict'877 and (because there was no MeSH term for partner relational problem) the keywords ‘partner relational problem’ combined with the restricted MeSH term 'love' or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed.878 Because marriage has a close association with love, the abstracts were searched looking for instances where romantic love was seen as pathological or directly caused pathology.

This search produced no references.879

DSM
In order to both get an idea of the progression of this concept through DSM and note any connection to love, DSM editions were searched using the following words: marital, marriage, relational, and relationship.

In DSM-I there appeared to be no category analogous to partner relational problem.880

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877 Definition: ‘Struggle or disagreement between parents, parent and child or other members of a family. Use for: interparental conflict; marital conflict; conflict, family; conflict, interpersonal; conflict, marital; conflicts, family; conflicts, interparental; conflicts, marital; family conflicts; interpersonal conflicts; marital conflicts. Introduced in 2008. Tree information: Broader, ‘family relations’, ‘interpersonal relations’; Narrower, nil; Related, nothing relevant.
878 Both psychINFO and Medline databases were searched 6/10/08.
879 To put this in context, on 27/1/09 there were 2,250 references in English found in psychoINFO using the Thesaurus term ‘marital conflict’ in its expanded form and six when using the keywords ‘partner relational problem’, while in Medline the MeSH term ‘family conflict’ found 78 references and one reference when using the keywords ‘partner relational problem’.
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DSM-II introduced the category marital maladjustment: 'This category is for individuals who are psychiatrically normal but who have significant conflicts or maladjustments in marriage.'

In DSM-III marital maladjustment was replaced with marital problem: 'This category can be used when a focus of attention or treatment is a marital problem that is apparently not due to a mental disorder. An example is marital or conflict related to estrangement or divorce.' But there was also a subcategory ‘interpersonal problems’ which included ‘difficulties with romantic partner’.

DSM-IIIR had identical categories of marital problem and interpersonal problem. By DSM-IV marital problem had become partner relational problem with an identical definition to DSM-IVR.

All these categories were located in what were called the Supplementary Codes, rather than in the main diagnostic system. There was no mention of love.

**Comprehensive Textbook of Psychiatry**

The *Comprehensive Textbook of Psychiatry* follows the DSM closely in using categories from marital maladjustment to marital problem to partner relational problem. The first six volumes do not describe anything relevant to this study, but Volume 7 and Volume 8 had identical paragraphs which appeared to be discussing a concept similar to lovesickness:

An issue with special importance for partner relational problems is passionate love, defined as a special state of mind characterized by emotional dependence on the person one is in love with and by symptoms such as an intrusive preoccupation with

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that person, an intense desire for reciprocity of feelings, idealization, and an uncanny ability to see hope even when there is none. Falling in love can occur at any age and has been described in all cultures. Unrequited love can lead to depression, suicidal tendency, violence, and partner homicidal ideation, observed more often in men. In addition, distress and alienation in one's primary relationship put one more at risk for falling in love with someone else.

Other Textbooks
Other textbooks were not searched for this diagnosis.

Conclusion
There appeared to be no strong connection during this period between partner relational problem (or similar concepts) and morbid love. The entries in more recent editions of the *Comprehensive Textbook of Psychiatry*, while they mention passionate love, seemed to indicate that this was an aetiological factor rather than part of the concept itself.
STALKING

Compulsive following is a well known behavioural manifestation of romantic love suggesting that one modern form of lovesickness may be stalking.

Modern Definitions
Stalking has been defined as: ‘persistent harassment in which one person repeatedly imposes on another unwanted communication and/or contacts’. While in psychINFO the Thesaurus definition is: ‘Wilful, malicious, and repeated non-consensual contact with and harassing of another individual.’

Stalking is a modern construct, part crime and part disease, which is a re-conceptualisation of a very old form of behaviour; which in some cases would previously have been considered part and parcel of the normal courtship behaviour associated with romantic love. The concept of stalking as a problematic behaviour may have emerged because of wider shifts in Western culture. Perceptions about how men and women should relate to one another changed: marriage was no longer believed to be permanent, and wives no longer viewed as their husbands’ property. At the same time the fragmentation of society increased the difficulty in forming romantic relationships, while the media fostered celebrity worship.

History of the Concept
Although there had been some interest in stalking behaviour and its relation to concepts of erotomania going back at least until the nineteenth century, its rise to prominence appears a more recent phenomenon. It is unclear who coined the term ‘stalking’ but it was probably first used in 1989. And it was also the eighties when concern about this behaviour appeared to have surfaced, achieving wide coverage in the media because of the stalking of celebrities by obsessed fans, most famously in the 1989 murder of actress Rebecca Schaeffer. It was therefore probably no coincidence that the first state to criminalise stalking in the United States was California in 1990, with the other states in the US and the English speaking world rapidly following suite. These laws used broader and broader conception of stalking, from star-stalkers, to men harassing their ex-partners, to the type of definition suggested above.

Deviant behaviour can be criminalised, but it can also be medicalised. Articles began to appear in the early nineties linking star-stalking with the mental disorders

erotomania and obsessional love. Later, as the focus shifted to men stalking ex-partners it lost some of this association with severe mental illness. At the same time, however, stalking began to resemble a stand alone disease-concept. A number of typologies of stalking have been proposed, often making a distinction between psychotic and non-psychotic stalking. A particularly influential typology was developed in 1999 by Mullen et al. In this typology, the division between psychotic and non-psychotic remained, but there were in addition five types of stalker, two of which appeared to have a strong element of romantic love: the ‘rejected stalker’, upset at the termination of a relationship (often a romantic relationship); and even more explicitly, the ‘intimacy seeker’, wishing to start a romantic relationship. The latter stalkers are particularly interesting as for this category Mullen et al propose that psychiatric treatment was indicated as ‘they are largely impervious to judicial sanctions, often regarding court appearances -- even imprisonment -- as the price of true love.’ Psychiatric treatment was also recommended for the psychotic stalkers.

**Databases**

**Question:** What was the connection between the disease concept stalking and romantic love during this period?

The psychINFO database was searched using the Thesaurus term ‘stalking’ in its expanded form (this term cannot be exploded), combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the keyword ‘stalking’ (‘stalking’ is not a MeSH term) combined with the MeSH term ‘love’ in its restricted form or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed. The abstracts of these articles were reviewed looking for a connection between stalking and romantic love. Love as part of erotomania or the expression ‘romantic attachment’ was allowed but ‘romantic relationship’ if this simply meant a sexual partnership was excluded.

This search left seven references, with the years of publication ranging from 1994 to 2005, suggesting that for this type of stalking the medical concept did indeed

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902 Both psychINFO and Medline searched 3/8/07.

903 To put this in context, on 20/9/07 there were 284 articles found in psychINFO using the Thesaurus term ‘stalking’ in its expanded form, and 256 in Medline using the keyword ‘stalking’.


start after the criminal concept (the psychoINFO Thesaurus term 'stalking' was only added in 2001). Two references were chapters from the same book.  

In none of the references was stalking a fully-fledged disease concept. Some references came at stalking as an extreme of normal behaviour, for example:

Examines whether there is a continuum of stalking behaviors in courtship that ranges from "normal" courtship to persistent obsessive forms of behavior, focusing on pursuer/perpetrator perceptions of where to draw the line. Ss were 197 women and 44 men with a modal age of 19-20 yrs who had had at least one experience of loving someone who did not reciprocate those feelings. Data suggest that Ss of both sexes engage in a wide range of stalking-related behaviors or courtship behaviours -- including approach, surveillance, intimidation, hurting oneself, verbal/mild aggression, and physical violence -- when responding to unrequited love.

Another reference looked at stalking simply as a behaviour of people suffering erotomania. However, in other references, stalking took on many of the characteristics of a disease. It was given a neurobiological basis, a typology, a

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clinical definition, and a suggested treatment. 

**DSM**

In the first three editions of DSM there was no reference to stalking. In DSM-IIIR in the description of the erotomaniac type of delusional disorder it noted: ‘Efforts to contact the object of the delusion, through telephone calls, letters, gifts, visits, and even surveillance and stalking are common’. In both DSM-IV and DSM-IVR there was an identical reference.

**Comprehensive Textbook of Psychiatry**

There was no reference to stalking from Volume 1 to Volume 5 of the *Comprehensive Textbook of Psychiatry*. In Volume 6 there was one paragraph giving a legal definition, but there was nothing about love. There was a similar definition in Volume 7. Also, in Volume 7, when discussing delusional disorder, the case example for erotomania involved the patient being arrested on a stalking charge (the first occasion when fairly typical erotomaniac harassment behaviour is labelled stalking). Volume 8 had nothing in the index on stalking, but there was a short discussion of the topic in the section on erotomania:

The phenomenon of stalking is also linked, at times, to erotomania. Most definitions of stalking include the following elements: a pattern of intrusive behaviour akin to

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harassment occurs; an implicit or explicit threat emanates from the pattern of
behaviour; and a target experiences considerable fear as a result...."Simple
obsessional" stalkers make up the bulk of those who stalk and follow someone after a
real relationship is terminated. Usually, they are motivated by intense resentment
after perceived abuse or rejection.  

Stalking is also used in Volume 8 as an example of behaviour secondary to an
overvalued idea (overvalued ideas are unreasonable and sustained abnormal beliefs
that are held beyond the bounds of reason):

A 42-year-old man who had a brief relationship with a woman was unable to accept
the fact that she no longer wanted to see him. He ruminated about every encounter
they had and interpreted small gestures in the past as indicating her undying love for
him. His infatuation led him to follow her repeatedly to work and school, and he
pursued her relentlessly, to the point that she brought charges against him for
stalking.  

Other Psychiatric Textbooks
Stalking was referenced briefly in a discussion of delusional erotomania in Volume 6
of the *Companion to Psychiatric Studies*.  

Clinical Psychology Textbooks
There was no reference to stalking in the clinical psychology textbooks.

Conclusion
Stalking is a relatively new psychiatric concept, and is still seen more as a problematic
behaviour rather than a disease. It is more fully recognized in forensic psychiatry than
general psychiatry and is linked in particular to erotomania. There appears to be a
much weaker link with romantic love, though certainly there are some references is to
this.

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921 Benjamin Sadock, Virginia Sadock (eds), *Comprehensive Textbook of Psychiatry,* 8th ed.,
922 Benjamin Sadock, Virginia Sadock (eds), *Comprehensive Textbook of Psychiatry,* 8th ed.,
STOCKHOLM SYNDROME AND RELATED SYNDROMES

It has been suggested that a modern form of lovesickness could be the new disease concept Stockholm syndrome or one of its related disorders.\textsuperscript{924} This idea will be examined in the following section.

Modern Definitions
Stockholm syndrome and battered wives syndrome (battered spouse syndrome, battered women’s syndrome), are concepts developed outside the addictions field, but with a certain degree of overlap with ideas of co-dependency. However, in contrast to co-dependency, where the sufferer forms or stays in a relationship despite the partner’s addiction problem, sufferers from these syndromes stay in the relationship in spite of threats of violence and actual assault.

Widely accepted modern definitions of Stockholm syndrome are hard to find in standard textbooks. Volume 8 of the \textit{Comprehensive Textbook of Psychiatry} simply stated: ‘Hostages whose lives are in deadly peril for a period of time become so dependent on their captors that they then may identify with them, come to support their cause, and even attempt to foil rescue attempts.’\textsuperscript{925} Neither the \textit{Comprehensive Textbook}, DSM-IVR, nor ICD-10, provide definitions for battered spouse syndrome or its synonyms.

MeSH gives this definition for battered women:

\begin{quote}
Women who are physically and mentally abused over an extended period, usually by a husband or other dominant male figure. Characteristics of the battered woman syndrome are helplessness, constant fear, and a perceived inability to escape. (From American Heritage Dictionary of the English Language, 3d ed).
\end{quote}

Historical Background
For years clinicians and theorists have pondered the problem of why victims of violence develop, or continue to show, love and attachment to those who perpetrate this violence. One approach to this dilemma was to medicalise it.

The term Stockholm syndrome was coined by psychiatrist Dr Nils Bejerot to describe the unexpected behaviour of hostages during a 1973 bank robbery in Stockholm, Sweden, in which the robbers held bank employees prisoner for six days. During this period, the hostages appeared to take the side of their captors: resisting outside rescue forces, and later raising money for a defence fund. Significantly, one of the female hostages even became engaged to one of the robbers.

Later, the term Stockholm syndrome has been applied to a wider number of situations where the same psychological processes appeared to be operating, including hijackings, kidnappings, prisoner-of-war camps, and physically violent relationships. Various explanations have been given for this seemingly odd behaviour including an

evolutionary perspective\textsuperscript{926} a cognitive perspective,\textsuperscript{927} and a psychoanalytical perspective.\textsuperscript{928}

The concept battered spouse (wife/woman) syndrome addressed a similar problem. Battered women’s syndrome was a term coined by psychologist Lenore Walker in 1979\textsuperscript{929} based not on any notion of love, but rather on the theory of learned helplessness (a behavioural theory of how depression and helplessness can be induced by psychological or physical trauma). This has proved a popular notion with defence lawyers. It has also been categorised in both ICD-9 and 10. In ICD-9 and ICD-10 this concept was categorised under ‘External Causes of Injury and Poisoning’ rather than mental disorders, called in ICD-9 ‘adult physical abuse’ and ICD-10 ‘battered spouse syndrome NOS’. In DSM IV it is listed as one cause of post traumatic stress disorder.

Databases

Question: What was the connection between the disease concept Stockholm syndrome (and related concepts) and romantic love during this period?

The psychINFO database was searched using the Thesaurus terms ‘partner abuse’\textsuperscript{930} or ‘battered females’\textsuperscript{931} or ‘domestic violence’\textsuperscript{932} or ‘intimate partner violence’\textsuperscript{933} or ‘violence’\textsuperscript{934} (there was no Thesaurus term ‘Stockholm syndrome’) in their expanded and exploded forms; which were combined with the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. A keyword search using ‘Stockholm syndrome’ was also done. Medline was searched using the MeSH terms ‘spouse abuse’\textsuperscript{935} or ‘domestic violence’\textsuperscript{936} or ‘violence’\textsuperscript{937} or ‘battered women’.\textsuperscript{926-937}

\textsuperscript{932}Definition: ‘Injurious or abusive behaviour in family or other domestic interpersonal situations’. In May 2006, this term replaced the discontinued term ‘family violence’. Tree Information: Broader: ‘violence’; Narrower, nothing; Related, ‘battered females’, ‘intimate partner violence’, and ‘partner abuse’.
\textsuperscript{933}Definition: ‘Actual or threatened physical or sexual violence, or psychological and emotional abuse, directed toward a current or former spouse, boyfriend, girlfriend, or dating partner’. This term was introduced in April 2007. Tree Information: Broader: ‘partner abuse’, ‘violence’; Narrower nothing; Related terms, ‘domestic violence’.
\textsuperscript{935}Definition: ‘Deliberate severe and repeated injury to one domestic partner by the other.’ First introduced: 1977. Tree Information: Broader, ‘domestic violence’; Narrower, nil; Related, ‘battered women’.
\textsuperscript{937}Definition: ‘Individual or group aggressive behaviour which is socially non-acceptable, turbulent, and often destructive. It is precipitated by frustrations, hostility, prejudices, etc.’ It was previously
women (there was no MeSH term 'Stockholm syndrome') in their expanded and exploded form; combined with the restricted MeSH term ‘love’ or the keywords ‘romance’ or ‘romantic’. A keyword search using ‘Stockholm syndrome’ was also done. The results of these searches were combined and double-ups removed. The abstracts of these references were reviewed looking for references where the person experiencing romantic love was the victim of violence rather than the perpetrator (which is more a stalking construct).

This search left fifteen references to articles published from 1995 to 2006.

Three articles in psychINFO had five or more citations. Two of the articles were a critique of Western society's take on romantic love, the other was a scale for the categorised as ‘aggression’ (1966-1967). Tree Information: Broader, ‘crime’, ‘social problems’; Narrower, ‘domestic violence’; Related, ‘battered women’.

Definition: 'Women who are physically and mentally abused over an extended period, usually by a husband or other dominant male figure. Characteristics of the battered woman syndrome are helplessness, constant fear, and a perceived inability to escape. (From American Heritage Dictionary of the English Language, 3d ed.)' First Introduced: 1995. Tree Information: Broader, ‘women’; Narrower, nil; Related, ‘spouse abuse’.

Both PsychINFO and Medline searches carried out 20/9/07.

To put this in context on 20/9/07 a search of psychINFO using the Thesaurus search terms ‘partner abuse’ or ‘battered females’ or ‘domestic violence’ or ‘intimate partner violence’ in their expanded forms found 8695 articles, and a search using the keywords ‘Stockholm syndrome’ found 39. A search of Medline using the MeSH terms ‘spouse abuse’ or ‘domestic violence’ or ‘violence’ or ‘battered women’ in their expanded forms gave 19,707 and a search using the keywords ‘Stockholm syndrome’ found 6 articles.

On 21/4/08 a search of psychINFO using the Thesaurus search term ‘battered females’ in its expanded form gave 2297 articles. A search of Medline 21/4/08 using the MeSH term ‘battered women’ in its expanded form gave 1294 articles.


Stockholm syndrome,\textsuperscript{943} which had love-dependence as an important component. This scale:

Assessed the factor structure, reliability, and validity of a 49-item scale designed to measure Stockholm syndrome (i.e., bonding with an abusive partner) for 764 female undergraduates (aged 17-38 yrs) in heterosexual dating relationships. Factor analysis identified 3 major factors: Core Stockholm Syndrome, characterized by cognitive distortions and other strategies for coping with abuse; Psychological Damage, marked by depression, low self-esteem, and loss of sense of self; and Love-Dependence, typified by the feeling that one cannot survive without the partner's love.\textsuperscript{944}

A major theme in these abstracts (often based on feminist analysis) was that the idea of idealized romantic love was encouraging women to get into and stay in violent relationships (i.e. a problem in society). Another theme was how love and violence frequently co-exist and indeed violence could even amplify feelings of love. Neither of these themes was particularly suggestive of a medically constructed diagnosis. Only one reference discussed the connection between love and the Stockholm syndrome.\textsuperscript{945} Reviewing the abstracts brought up by the ‘Stockholm syndrome’ keywords search there was a noticeable lack of a connection with romantic love; instead the articles used such concepts as ‘positive feelings’ to describe the bond between captor and hostage.

**DSM**

Stockholm syndrome, battered wives syndrome, and related syndromes, do not appear in any edition of DSM.\textsuperscript{946}

**Comprehensive Textbook of Psychiatry**

In Volume 1 and 2 of the *Comprehensive Textbook of Psychiatry* there was no reference to Stockholm syndrome, battered wife syndrome, or domestic violence.\textsuperscript{947}

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In Volume 3 Stockholm syndrome was briefly described: ‘A syndrome in which captives identify with, and have sympathy for, their captors on whom they are very dependent for survival. First described in a Stockholm bank robbery where hostages were so affected by their captor bank robbers. Also seen in terrorist-hostage situations. The major defence mechanism as described by Anna Freud was known as “identification with the aggressor”’.

However, there was no reference to domestic violence or battered wife syndrome, though wife abuse was briefly mentioned. By Volume 4 references to Stockholm syndrome had gone. There was brief mention of marital violence and spouse abuse, including typical characteristics of the victim, but in neither case conceptualising the problem as a syndrome. In Volume 5 and Volume 6 there were similar references to spouse abuse, but not Stockholm syndrome. Volume 7 did not mention Stockholm syndrome, but did discuss domestic violence, and while it did not specifically call it a syndrome, referred to battered women who: ‘often become protective of their batterer and form intense emotional attachments that may be hard to break.’ In the Volume 8 Stockholm syndrome had returned (see Modern Definitions) in a discussion of cults. There were scattered references to domestic violence, but no conception of a syndrome in the victim.

Love was not mentioned in the context of Stockholm syndrome or related syndromes in any of these books.

Other Psychiatry Text Books
In other psychiatric textbooks there was no reference to Stockholm syndrome or related disorders.

Clinical Psychology Text Books
There was no reference to Stockholm syndrome or related disorders in the clinical psychology textbooks.

Conclusion
While on the surface there would seem to be a plausible connection between romantic love and Stockholm syndrome, this was not reflected in the literature during this period. There were a significant number of references to Stockholm syndrome and similar violence related syndromes, but there was almost no connection to love or romance.

SUICIDE

Modern Conceptions
Suicide, much like stalking, is not conceptualized as a disease in modern psychiatry, but rather a problematic behaviour with some characteristics of a disease. The MeSH definition is simply: ‘The act of killing oneself’.

Historical Background
The link between mental instability and suicide goes back a long way, and though suicide was often seen as a moral and legal problem in the middle-ages, it became increasingly medicalized over the course of the seventeenth and eighteenth centuries. In contemporary society dealing with suicide, attempted suicide, and other forms of deliberate self-harm, is seen as a legitimate role for psychiatry.

Similarly, the connection between suicide and romantic love is a longstanding one both in the arts -- with famous examples including Shakespeare’s Romeo and Juliet, Plutarch’s Anthony and Cleopatra, and Johann Goethe’s The Sorrows of Young Werther -- and Western society in general. Secondary sources do not emphasise suicide as a consequence of lovesickness in the ancient and medieval world, but there was clearly some concern that a patient could deliberately starve to death. By the Renaissance suicide was a feared sequale of lovesickness if the disease was left untreated. A similar concern can be found in Esquirrol’s concept of erotic monomania in the nineteenth century.

Databases
Question: Was there a connection during this period between suicide and Romantic Love?

Roger Lane, Violent Death in the City: Suicide, Accident and Murder in 19th Century Philadelphia, Massachusetts, 1979, p. 30.
Roger Lane, Violent Death in the City: Suicide, Accident and Murder in 19th Century Philadelphia, Massachusetts, 1979, p. 30.
958 Etienne Esquirol, Mental Maladies, translated by Ebenezer Kingsbury Hunt, Philadelphia: Lea and Blanchard, 1845, pp. 335-42.
The psychINFO database was searched using the Thesaurus terms ‘suicide’\(^{959}\) or ‘attempted suicide’\(^{960}\) in their expanded and exploded forms, combined with both the Thesaurus terms ‘love’ and ‘romance’ in their restricted forms. Medline was searched using the MeSH terms ‘suicide’\(^{961}\) or ‘suicide, attempted’\(^{962}\) or ‘self-injurious behaviour’\(^{963}\) in their expanded and exploded forms combined with restricted love or the keywords ‘romance’ or ‘romantic’. The results of these searches were combined and double-ups removed.\(^{964}\) The abstracts of these references were reviewed and those not broadly about the connection between romantic love and suicide were removed.

This search generated 10 references,\(^{965}\) published in the years 1973 to 2004.\(^{966}\) Two were by the same author, who also co-authored another paper.\(^{967}\)

There was only one reference with multiple citations in psychINFO, a psychoanalytical theory paper by Robert Bak.\(^{968}\) This paper built on Freud’s idea that

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\(^{959}\)No definition. Year Term Introduced 1967. Tree Information: Broader, ‘self-destructive behaviour’; Narrower ‘assisted suicide’; Related ‘attempted suicide’.


\(^{961}\)Definition: ‘The act of killing oneself’. No information on when the term was introduced. Tree Information: Broader, ‘self-injurious behaviour’; Narrower, ‘attempted suicide’, ‘assisted suicide’; Related, nil.


\(^{964}\)Both psychINFO and Medline were searched 20/4/07.

\(^{965}\)To put this number in context in psychINFO on 20/9/07 the expanded forms of Thesaurus terms ‘suicide’ or ‘attempted suicide’ produced 15,098 references, while in Medline the MeSH terms ‘suicide’ or ‘suicide, attempted’ or ‘self injurious behaviour’ in their expanded forms identified 24,313 references.


there was a link between love and suicide. Here, however, the sexual element was deemphasised, and instead Bak used a concept very similar to romantic love. Bak’s main thesis was that falling in love was often preceded by some kind of loss, and therefore it was akin to mourning. Bak stated that the most pathological form of love in the ‘psychoanalytic tradition’ was erotomania; but also that in unrequited love ‘fulfilment is blocked by the object’ which can lead to a process ‘similar to mourning’ or to the person becoming psychologically stuck in love and therefore vulnerable to suicide.

While three other references looked for empirical factors associated with the risk of suicide, other references looked for other references took a similarly theoretical approach to the subject. Analysis of a large sample of suicide notes from 262 suicides in Australia found that men less often had escape from pain as a motive for their suicides and more often had love/romantic problems. The suicides of older persons were more often motivated by escape from pain and less often had love/romantic problems.

There was one historical reference looking at the causes of suicide in eighteenth century Geneva.

**DSM**

None of the editions of DSM mentioned any connection between suicide and love.

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Comprehensive Textbook of Psychiatry

In Volume 1 of the *Comprehensive Textbook of Psychiatry* there was a discussion about suicide, which while it did not directly discuss the role of love, gave examples which appeared to relate to love affairs and romantic love.  

In Volume 2 there was no clear connection between suicide and romantic love, though psychodynamic ideas of hostility turned against the love object were mentioned.  

Volume 3 had 'recent loss or separation' as a possible cause of suicide.  

Volume 4 listed 'Loss of affectional relationships' as a predictor of suicide, and referenced *The Sorrows of Young Werther*, but otherwise did not make a connection between romantic love and suicide.  

In Volume 5 'broken romance' in adolescents was suggested as a precipitating factor for suicide, and boyfriend or girlfriend 'difficulties' for adolescents' attempted suicide. Volume 6 discussed the psychodynamic ideas of aggression towards the love object turned inward and the loss of a 'love object' as precipitants for suicide. Causes of suicide attempts included 'difficulties with a boyfriend or girlfriend' in adolescents and marital problems in adults. Similarly, precipitating factors for adult suicide attempts in Volume 7 included marital problems, while a precipitant for adolescent attempted suicide was 'girl-friend and boy-friend problems'. Volume 7 continued to discuss the psychodynamic idea that suicide could be precipitated by the loss of a love object, or the hate of a love object turned inwards.  

Volume 8 noted in passing background comments on the psychology of suicide that: 'William Shakespeare wrote of adolescents whose love was frustrated, but is this a sufficient explanation…?' and in discussing the history of suicide, that one of Emile Durkheim's categories of suicide victim -- the anomic -- were 'out of step, owing to life-circumstance changes (e.g., loss of job, loss of love)...'. Otherwise, Volume 8 briefly mentioned that the loss of a relationship can cause suicide.

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Other Psychiatric Textbooks
Other psychiatric textbooks either ignored this issue or gave it the briefest mention. Andreason gave 'troubled relationships' as a cause of suicide in adolescents and young adults, and specifically noted a typical suicide attempter would take an overdose after 'a short-term love affair' sometimes in an attempt to 'win back a former lover'.

Looking at the issue of deliberate self-harm, the Companion to Psychiatric Studies suggested this was usually caused by 'interpersonal difficulties' and can be an 'expression of...love'.

Clinical Psychology Textbooks
There was no mention of the link between romantic love and suicide in the psychology textbooks studied.

Conclusion
There does not appear to be a strong link between romantic love and suicide in the literature, what little mention it did get appears absorbed into more general notions of relationship problems.

Discussion
Discussion of the Methodology

Introduction
This is a history of ideas, and more specifically ideas about disease and how they connect to ideas about romantic love. From a wider historiographical context -- though this thesis is not consciously modelled on any particular school of history -- research on ideas and emotion calls to mind the study of the mentalités, developed in the Annales school, while the methodology can be seen as intellectually descended from Febvre’s problem orientated history, and later Annales’ historians use of statistics and computing.

This thesis sought to improve on routine historical methodology, (at least as it is applied to the study of love) by greater emphasis on empirical, quantitative data. Where this study sought to be different was by using techniques borrowed from evidence-based medicine to search databases in a systematised way.

To what extent did it succeed?

Problems with the Methodology
A number of problems came up in the study either inherent in the methodology, or flaws in the implementation. These chiefly involved issues around definition and classification.

This thesis could not escape a problem central to the study of love -- that of definition. It has already been noted that there is no universally accepted conception of romantic love; that the definitions provided in the databases were not ideal for this study; and that there were practical difficulties in applying definitions of romantic love when only an abstract was readily available. Moreover, the databases system of categorising the references using the dictionary terms was by no means perfect.

There is another problem of definition more specific to the historical study of concepts. One way of looking at a definition is as a word linked to a concept (its meaning). This study shows that either the word or the attached concept can change over time. Therefore, taking dictionary defined concepts created at a point in time, and then using them to categorise historical material from a range of times, is problematic.

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992 The searches of some of the textbooks -- particularly the DSM and the Comprehensive Textbook of Psychiatry -- were relatively novel in that they used computer programs to scan the text for certain keywords. This repeatedly turned up relevant passages not identified by the index. However, while a revelation to those used to painstaking methods of searching through texts, this would seem a fairly obvious extension of normal historical research.
In this study the concept of romantic love is treated differently from the concepts of morbidity. Romantic love is used as if it is a constant -- the same definition is applied throughout the period. In contrast, it is expected that the various disease conceptions may change over time, and specifically the degree to which this disease conception contains ideas of romantic love.

The problem with the use of an unvarying conception of romantic love is not so much that this introduces bias to the study (all studies have their biases), but that this bias is impossible to accurately quantify. It is therefore an assumption that over the relatively brief period of the study, and within the relatively restricted culture of scientific and psychiatric thought, that the bias involved was insufficient to significantly skew the results.

With regard to conceptions of morbidity, where it was accepted and expected that changes would occur over time, a better approach in retrospect may have been to move away from definitions to using keywords. This would have presented to the researcher material unfiltered by the concepts of the compilers of the Thesaurus and MeSH dictionaries standing at one point in time. It was thought, however, that while this approach risked losing a sense of historical change during the period of study, the use of the databases dictionary definitions -- a conceptual filter of those heavily involved in the literature of medicine, psychiatry, and psychology -- would potentially give a better idea of how morbid love was conceptualised looking at the period as a whole.

Having used these keywords and definitions to find potential references, most evidence-based reviews of the literature employ two researchers to look separately through the articles identified by the search, applying the inclusion and exclusion criteria, and then comparing the results. This type of design was not easily built into a Master's history thesis, which is invariably carried out by one person. For a similar reason -- this was research carried out by one person over a limited period of time -- it was not possible to carry out the logical next step, reviewing each article identified, rather than the abstract, and so this study sacrifices depth for breadth.

There were a number of other problems with the study not directly related to the systematic review of the databases. The list of possible modern manifestations of morbid love was not drawn up in a systematic way and it is possible that some categories may have been overlooked. The methodology was developed over the course of the thesis, rather than the ideal of having it in place from the start. This led to some minor inconsistency in the searches, and also meant the searches were scattered over a two-year period.

Benefits of the New Methodology
For all the problems with a-historical dictionary defined concepts, the ability to do conceptual searches, using terms defined by the databases' creators, would appear to have potential for studying changes in the interest in different ideas over time. Where only a few references were produced by the search, they could be used to give an overview of the interest in the concept over the period of the study. When larger numbers of references were identified, it was possible to some degree to show change
over the period of the study, which if paralleled by the other systematic searches (DSM and the Comprehensive Textbook of Psychiatry) provided powerful evidence of historical change. Similarly, using keywords (for example 'lovesickness') and seeing how the concepts associated with the word change over time produces valuable historical data.

This also illustrates an additional advantage of using the database search engines -- it encourages the researcher to think either in words or concepts, rather than confusing the two.

The discussion so far has been about the validity of the methodology. In historical studies probably the best one can hope for is a modest improvement in the validity of the methodology. Reproducibility appears a much more attainable goal, and while not faultless in this regard, this study has far higher levels of reproducibility than anything else in the field, thus markedly increasing the belief readers can have in its conclusions.

Discussion of the Results

Lovesickness was a disease concept that had lasted for over a thousand years in medicine, the arts, and popular culture. Then, according to secondary sources, during the nineteenth and early twentieth century the disease concept of lovesickness disappeared. This type of dramatic change immediately catches the attention of a historian. What caused it? Could this change be linked in some manner to the changes in thought in other areas such as diagnostic concepts, or ideas about love in the scientific community or wider society? Unfortunately, the various background histories do not offer much in the way of convincing links between wider historical change and the disappearance of lovesickness. Moreover the explanations for the disappearance given in the secondary literature -- lovesickness was re-absorbed into the other emotional disorders secondary to the collapse of the humoural model, lovesickness was replaced by an increased interest in pathological forms of sexual behaviour -- raise as many questions as they answer.

In the absence of good data we enter the realm of speculation and interesting theories. One way to look at this problem is to ask, in what circumstances could love cause people distress? Love is viewed by some scientists as an emotional ‘attachment’ bond created between two people (even if it only works in one direction). Distress would then be caused if this bond was put under stress: by distance, by family, by class, by rejection, or by infidelity. A moment’s reflection would suggest some of these strains no longer exist in the Western world -- distance is no longer a tyrant, families have less control over their children, and class systems have weakened. Coming from a different direction at the problem, mental disease is defined as much by the breaking of societal norms as individual distress, but much of what was once considered

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993 Though this issue was potentially complicated by the gradually increasing number of references on most dictionary concepts, and the total references in each database each year. More sophisticated statistics might therefore be needed to more accurately quantify the changing influence of ideas.


deviant behaviour (for example loving someone of the same sex) is widely tolerated in Western society. Love that is still beyond the pale, however, is still pathologised. A good example of this from the current study is the modern conception of lovesickness, where love between a psychotherapist and patient is conceptualised as a disease. Anthropological evidence in support of this theory comes from a non-Western society, the Islamic Fulbe of Cameroon, where inability to control romantic love (even towards a spouse) breaks social norms and so is seen as a form of mental instability, not unlike medieval Islamic concepts of lovesickness. An alternative explanation may be that Western society’s view of romantic love changed. The organismic disease model requires that disease is seen as bad, but research suggests romantic love is more strongly associated in Western society with positive emotions, and even unrequited love is not viewed as a wholly bad thing.

Modern Forms of Morbid Love

Historically the dominant conception of morbid love, lovesickness, has changed as a concept over time, and gone under different diagnostic names. These historical names or similar names are still used in psychiatry for four categories of morbid love examined in this study -- lovesickness, love melancholy, erotomania, and morbid jealousy.

The diagnostic name lovesickness rarely now refers to old conceptions of morbid love, other than as a name for the historical concept. ‘Lovesick’ has more commonly been the label given to psychotherapists who indulge in boundary violations with patients because of romantic love.

While melancholic depression is still a recognized disease category, love melancholy has completely disappeared, except as a historical concept. A connection between love and affective disorders remains, but it is weak.

Erotomania, in the form of a subset of delusional disorder, appears to be the one direct historical descendant of lovesickness which is still prominent in psychiatric thought, although even here romantic love is de-emphasised, and prominence given to the delusional thought processes. The other common meaning of erotomania -- as a synonym for diseases of hypersexuality -- appears to be a waning concept, while nymphomania itself (and its relatives) has lost its connection with romantic love.

Morbid jealousy is probably another direct historical descendant of lovesickness, and one whose recent history strongly parallels erotomania, with which it shares a subcategory in delusional disorders. However, both jealousy as a delusion, and less severe forms of morbid jealousy have lost their connection with romantic love.

As well as these diseases which appear to have descended in part from lovesickness, there are symptoms and behaviours that would once have been considered important parts of lovesickness, although not as separate entities, and which continue to have some significance in modern psychiatry -- suicide, obsessions, and stalking (though


jealousy, and erotomanic symptoms could also be placed in this category). There is no longer a strong link between romantic love and suicide in the literature, although there is an occasional reference. It is a similar situation with obsessions, while the disease most commonly associated with obsessions in modern psychiatry -- OCD -- has no direct connection. When love obsessions are discussed, they appear associated with many of the categories of morbid love discussed here -- stalking, erotomania, and love addiction.

Both love obsessions and stalking appear in the forensic literature. The latter behaviour is associated closely with erotomania, and less closely with romantic love, but now rather than a symptom distressing to that person engaging in the behaviour, it is considered behaviour abnormal to society and distressing in particular to somebody else.

Stalking, as well as being a new manifestation of an old lovesickness behaviour, is one of the potentially new diseases of lovesickness (along with Stockholm syndrome and love addiction), that seemed to have no direct historical link to the original illness, but rather to have developed de-novo. However, Stockholm syndrome and its related disorders, contrary to surface appearances, do not seem to have a robust association with romantic love. By contrast, love addiction has a stronger connection with love and romantic love, and indeed is such a broad concept that it appears to include elements of not only lovesickness, but all the other diseases, symptoms, and behaviours mentioned above, as well as symptoms of other diseases, and some novel symptoms. Love addiction as a disease concept has grown up almost completely outside mainstream psychiatry and medicine, being the offspring of the addictions field and popular culture.

Do any of these new diseases appear likely to become the new lovesickness -- a disease widely accepted by the psychiatric and medical professions? Stockholm syndrome and its relatives appears too disconnected from conceptions of romantic love; stalking would seem to be destined to be seen as a behaviour rather than a disease; which leads only love addiction. Applying the concept of addiction to various rewarding behaviours seems to be increasing in popularity. Sex addiction in particular would seem to have a good chance of replacing nymphomania and other diseases of hypersexuality (though whether this translates into the coveted status of a DSM disease is another matter). However, sex has been of far more interest to psychiatry in the last 200 years than romantic love.

Possibly love addiction’s chances to some degree depend on the rising interest in romantic love as a biological construct. On balance, this thesis appears to agree with secondary sources that a small but growing scientific interest in romantic love has been evident since the mid-twentieth-century, and in particular since the seventies, starting with classification and measurement, but with increasing interest in more biological investigations. However, these techniques do not seem to have been applied to measuring pathological love.

**Final Thoughts**

Lovesickness, then, has not completely disappeared, but rather lurks in various disguised and attenuated forms in the periphery of psychiatry. This conclusion is by no means a radical one, in essence being similar to that arrived at by Jacqueline
Duffin,\textsuperscript{998} nor does it contradict the contention from secondary sources that the idea of morbid love is in decline.\textsuperscript{999}

The nature of the methodology used in this thesis, is that it provides interesting data and answers small questions. The big questions remain. If anything, working through the data for this thesis made this marginalisation of the concept of morbid love seem more puzzling. At times when reading about Stockholm syndrome or erotomania, the absence of romantic love from the discussion seemed bizarre, almost as if Western psychiatry was uncomfortable with the juxtaposition of the two ideas -- love and disease -- or it would simply not occur to most people in the field.\textsuperscript{1000} This poses a problem which is almost a reversal of the 'Why did lovesickness as a diagnosis go into a decline?' question: What would it take for the revival of lovesickness or some similar conception of morbid love? More research into the science of love? A drug company inventing a cure for love addiction? Or some more profound shift in Western culture?

\textsuperscript{999}Or support it. A similar data set from an earlier period, or a clear trend within the 50 years studied would be necessary for this.
\textsuperscript{1000}This was the author's experience, until after many years in psychiatry this topic suddenly occurred to him.
Appendices
APPENDIX I -- SEARCH ENGINE BACKGROUND

About Medline
Medline is the modern successor to the Index Medicus. The first volume of Index Medicus was published in 1879. It was designed by Dr John Shaw Billings who developed it during the American Civil War under the auspices of the Surgeon General of the Army. The American Medical Association took over in 1927, and finally the United States National Library of Medicine in 1960. The National Library immediately began computerising the database\textsuperscript{1001} leading to older electronic databases (Dialog, and Grateful Med), and then Medline (Medical Literature Analysis and Retrieval System Online) and OldMedline.

OldMedline covers the period 1951-1965, with older citations added as time and resources permit, while Medline covers 1966 to the present. These two combined (as they are in this study, where they are referred to as 'Medline') make up the most wide-ranging bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences. They contain approximately 18 million bibliographic citations and author abstracts from more than 5,000 biomedical journals published in the United States and seventy other countries. The coverage is worldwide, but most records are from English-language sources or have English abstracts. Selection is based on the recommendations of a panel, the Literature Selection Technical Review Committee, based on 'scientific policy and scientific quality'. Both databases include references to articles indexed using terms from the National Library of Medicine’s controlled vocabulary -- MeSH.\textsuperscript{1002} Engines designed to search Medline generally use Boolean operatives to combine MeSH terms, and/or keywords.

About psychINFO
PsycINFO is the Psychological Abstracts Index produced by the American Psychological Association, transferred across to an electronic medium. It comprises citations and summaries from the 1800s to the present of journal articles, book chapters, books, technical reports, and dissertations within the field of psychology. The database is updated weekly and contains nearly 2,244,000 records, and covers more than 2,150 journal titles (the majority peer-reviewed). Publications are from more than 49 countries, and in more than 27 languages.

Journals are accepted for coverage if psychologically relevant, scholarly, peer-reviewed, and regularly published, with titles, abstracts, and keywords in English. Books selected are English-language, published worldwide, scholarly, professional, or research-based; all with psychological relevance. Dissertations are selected from Dissertation Abstracts International (A and B) on the basis of classification in DAI in sections with psychological relevance.\textsuperscript{1003} Engines designed to search psychINFO generally use Boolean operatives to combine Thesaurus terms, and/or keywords.

\textsuperscript{1002} Information taken from EBSCO Medline website, accessed in January 2009.
\textsuperscript{1003} Information taken from EBSCO psychINFO website, accessed in January 2009.
## APPENDIX II – RAW DATA

### RISING SCIENTIFIC INTEREST IN LOVE

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Bibliography
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**Comprehensive Textbook of Psychiatry**


**Other Psychiatric Textbooks**


**Clinical Psychology Textbooks**


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