Envy's pathology: Historical contexts [version 1; peer review: 2 approved with reservations]

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Abstract
This article is concerned with the physicality of envy in early modern-and eighteenth-century health contexts. The discussion brings together descriptions of the effects of envy on the body of the envier, mainly from works of physiology and health preservation, but also from literary and spiritual writings. These depictions of envy are studied beyond their symbolism and with a view to establish whether they are meaningful according to the medical paradigms of the time in which they occur. The discussion begins by acknowledging the status of envy as a 'disease' and looks to the specific ways in which the discourse of envy conveys this sense. I find that in the early modern discourse envy is always pathological, that is, it is experienced as disease and signifies disease in general and several diseases in particular. Moreover, envy is uniquely placed to convey pathology on account of its being connected to inherently pathogenic elements of the humoural theory. Specifically, envy is physiologically connected to melancholy, and the way it is presented comes close to attributes assigned to black bile. In addition, envy realizes pathology, the occurrence of disease in the body, by impairing the vital process of digestion and thus depriving the person from proper nourishment and sustenance. This article concludes by looking at envy within an eighteenth-century context. It finds that by the end of the century envy undergoes a significant shift away from its status as disease and considers the reasons for this change.

Keywords
envy, melancholy, nourishment, humours, medico-scientific, language
Introduction

The early modern discourse on envy was unanimous in condemning this emotion as dangerous and destructive. Envy connoted harm, social strife, and disorder. The pernicious nature of envy was recorded extensively as disease in discussions of this emotion. Traditionally, envy’s association with the evil eye, rooted in the sense of its Latin origin of *invidere* – to regard with ill will – elicited notions of harm akin to the spreading of disease. Proverbial advice to not share bread with the envious or to protect oneself from the envious person’s envenomed breath spoke to the contagion paradigm under which the influence of this emotion in society was perceived. Envy had the capacity to cause strife within society and also to directly cause harm to individuals who were the objects of the evil eye. An array of preservation and protective practices, observed across many cultures and historical periods, attests to the pervasiveness of this concept. 

In addition to being viewed as a disease within society, envy was described in terms of disease for the person experiencing it. Defined as pain or distress at the sight of others’ prosperity, envy necessarily incorporates the element of suffering. Although this aspect of the experience of envy can be said to be in common with other negative emotions, discussions of envy usually point to this suffering as especially heightened and harmful to the wellbeing of the individual. Bridget Galint traces the origin of the emphasis on the harm caused by envy to the envier himself to the religious discourse of the Middle Ages when biblical commentators allowed for a novel perspective on classical notions of envy. As she notes, ‘when the Fathers write in detail about the term and its meaning, they seem less concerned about the damage the envier might do than about the spiritual health of the envious person’. Religious discourse, and more specifically the discourse of the seven deadly sins, enhanced this notion of envy as disease and the envious person as a sufferer. Firstly, the discourse of vices favours the metaphor of spiritual ‘health’ to which envy is presented as detrimental. Secondly, the scheme of the seven deadly sins, or vices, developed into a genre with a series of well-defined conventions among which the medicine metaphor was prominent. In turn, this created and established links of envy – one of the deadly vices – with specific diseases, mainly leprosy, jaundice, and fever. The present article also focuses on the detrimental effect that envy has on the envier, but it does so from a strictly physiological perspective. That is, it is concerned with the effects of envy on the body of the person experiencing it as these are recorded in discussions of envy in early-modern and eighteenth-century context. The reason for this concern with the envier’s body stems from the fact that any description of envy rests on transparently physiological traits.

The discussion of envy that reaches the early modern period is informed by the classical and medieval traditions. The representations of this emotion that were bequeathed to the early modern period always include references to the body. The most enduring literary image of envy came from Ovid’s *Metamorphoses* where the personification of envy is a grotesque figure with ‘sallow cheeks’, ‘shrunken body’, ‘decayed teeth’ and venom-coated tongue. Middle English versions of envy’s image also follow on that vein of bodily decay. The Middle English allegorical poem of *Piers Plowman* by William Langland presents envy as ‘pale’, with ‘lean cheeks’, resembling ‘a leek that had lain long in the sun’ and having the ‘palsy’ and a ‘body blown up for anger’. In the sixteenth-century, the poet John Skelton gave a powerful description of envy, rendered all the more emphatic due to his characteristic style of short, haphazardly rhymed lines. Skelton’s envy has ‘leathery eyes’, ‘dry cheeks’, ‘wan visage’, and ‘creaking bones’. The figure is also ‘lean as a rake’, has ‘rusty gums’, a ‘bitter heart’ and ‘liver and lung wrung with anger’. Spenser’s envy in *The Fairie Queene* (1590) is presented as chewing on a ‘venomous toade’ with ‘cankered teeth’. Many other examples could be produced. In all of them, the physiological, that which refers to the body, always forms part of the representation of envy.

The connotations of disease and bodily suffering that are associated with envy are not lost to scholars. Critics recognize this aspect of envy and discuss its significance. However, in most discussions the physiological traits of envy complement the analysis rather than being its main focus. For instance, F.N.M. Diekstra, in an article on medieval envy, points to the rhetorical power of these images of bodily decay. The rotting body, the thinness, the paleness, the fever, the sickly complexion, all converge towards one important message: To denounce envy is not only the spiritually right thing to do, but also the rational thing to do, as one is spared the physical suffering it entails. Diekstra convincingly argues that the

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1. Most sources on this aspect of envy derive from anthropological, ethnological and sociological studies. See, for example, George M. Foster, ‘The Anatomy of Envy: a Study in Symbolic Behavior’, in *Current Anthropology* 13(1972), 165–202. The manuscript sources cited here also offer examples of this social belief in the destructive power of envy. For an understanding of envy as dangerous and sociological studies. See, for example, George M. Foster, ‘The Anatomy of Envy: a Study in Symbolic Behavior’, in *Current Anthropology* 13(1972), 165–202. The manuscript sources cited here also offer examples of this social belief in the destructive power of envy. For an understanding of envy as dangerous and

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3. Ovid, ‘The Envy of Aglauros’, in *Metamorphoses*, ed. by E.J. Kenney, trans. by A.D. Melville (Oxford: Oxford University Press, 1986), pp. 46–49, (II. 775–778).

4. The Confession of Envy’, in William Langland, *Piers Plowman*, trans. by E.T. Donaldson, in *The Norton Anthology of English Literature* ed. by M.H. Abrams and others, 2 vols (New York: Norton, 1990), I, pp. 322–3 (p. 322).

5. John Skelton, ‘Philip Sparrow’, in *The Complete Poems of John Skelton*, ed. by Philip Henderson (London: J.M. Dent, 1964), pp. 60–100 (p. 86).

6. Edmund Spenser, *The Fairie Queene*, in *The Norton Anthology of English Literature* ed. by M.H. Abrams and others, 2 vols (New York: Norton, 1990), I, pp.622–863 (p. 669) (I.A.262–70).
potent image of body-related imagery, which accompanies the
description of envy, is one of the most powerful weapons in the
rhetorical arsenal of medieval moralists\(^\text{10}\). Lynn Meskill, discussing
envy in an early modern context, points to envy’s physiological
traits and to the contagion paradigm that follows this emotion
from ancient and medieval times, in order to explain envy’s
perception as a disease that requires a potent antidote. In turn, this
antidote is found in Ben Jonson’s drama\(^\text{11}\). Literary critics who
discuss the treatment of envy in poetry, such as Milton’s envy in
Paradise Lost, also take into account the emphasis on the bodily
decay to show this emotion’s base nature\(^\text{12}\). Such discussions offer
important insights into how this emotion was perceived historically. However, they are not primarily concerned with physiology,
and for this reason treat the physicality of envy largely as
symbolic and as purposefully hyperbolic. This approach is aided
by the fact that the physiological characteristics attributed to envy
are ostensibly overwrought. It is also common in analyses, with
some exceptions, to regard physiological aspects in earlier works
under the prism of medical metaphor. This is especially the case
when the concept of study relates to the concept of sin or to the
passions. In this sense, studies tend to focus on the extravagant
and the abstract in descriptions of envy, which confirm the trope
of disease as metaphor without necessarily accounting for the
pragmatic basis of these descriptions.

My aim is to consider the physiological elements in descriptions of
envy in order to establish whether they are meaningful according to
the relevant medical paradigms of the time in which they appear;
mainly the period from the 1500s to the late 1700s. This is a period
that covers the advent of publishing; hence, there is extensive dis-
semination of information on health, the body, and the emotions. In
addition, its latter part, from the late seventeenth-century onwards,
marks a transition in medical thinking that changes the perception
of emotions in the body and, by consequence, the perception of
envy as well. Therefore, this article is concerned with the physical-
city of envy in historical contexts. In this regard, it is aligned to
research on the history of emotions and health.

The research field of the history of emotions has seen a surge of
interest in recent years. New approaches to the history of emotions
have allowed us to expand both on the paradigms with which we
analyze emotional experiences of the past, and also on the kinds of
sources available to the historian. They have also resulted in a surge
of research inquiry in related fields, such as social and cultural
history\(^\text{13}\). A similarly renewed interest is noted in the field of
emotions in health contexts. Specifically to the period of study
here, the volume on Emotions and Health 1200–1700 edited by
Elena Carrera, where she also contributes a significant study on
the physiology of anger, and the work of Fay Bound-Alberti are
significant. The work brought together by Carrera points to a com-
plex picture of the experience and representation of emotion in the
medical discourse of the medieval and early modern periods. Overall, it showcases the affinities and tensions among the many
discourses, cultural, philosophical and literary, that overlap with
the medical view, painting a complex image of the connections
between body, soul, and mind in the period. It also very usefully
points to the idea of moderation in emotional expression as a
contributing factor to health and wellbeing\(^\text{14}\). Bound Alberti’s
defined volume is concerned with a later period, from the late
seventeenth onwards, when new discoveries in science helped
shape a different framework of the workings of the body, firmly
separating the corporeal and the non-corporeal, and articulating
new ways of explaining the effects of emotions on the body\(^\text{15}\).

In general, recent scholarship on the history of emotions has done
a lot to revise both our reductionist view of emotions in the past
in general, and also to revise the solely negative view of specific
emotions, such as anger. However, envy remains under-represented
in research. There is no work of the same scope on envy as there is,
for instance, on anger by Rosenwein\(^\text{16}\), or on anger and physiology
by Carrera\(^\text{17}\). The present work aims to contribute research to one of
its most defining aspects; its physicality. I will look to discussions
of envy within a health context in order to account for the condem-
nation of this emotion as dangerous to one’s health and wellbeing.
I will also take into consideration the language used to describe
envy in the period, both literal and metaphorical. I will seek the
literal basis of metaphorical and symbolic language, as my research
suggests that hyperbolic images often have a basis on actual physi-
ological principles. In this way, my work comes close to recent
research by Virginia Langum on medicine and the seven deadly
sins. Similarly to Langum, I also find the foundation of envy’s
physiology in the melancholy humour and in anger. My work
covers a later period, though, and also entails a change in the
medical paradigm and, consequently, to the perception of the
dangerousness of the bodily effects of envy. My additional objec-
tive, therefore, is to consider the reasons why the physiology of
envy always tends towards the pathological and the diseased
and why this ceases to be the case in the late eighteenth-century.
The terms ‘pathology’ and ‘pathological’ are used here to denote
deviation from a healthy condition and engenderment of disease.
They also denote deviation from the norm: that which is considered
as unusual and extraordinary, with adverse effects on health.

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\(^{10}\)N.M Diekstra, ‘The Art of Denunciation: Medieval Moralists on Envy and Detraction’, in In the Garden of Evil: The Vices and Culture in the Middle Ages, ed. by Richard Newhauser (Toronto: Pontifical Institute of Mediaeval Studies, 2005), pp. 431–54.

\(^{11}\)Lynn S. Meskill, Ben Jonson and Envy (Cambridge: Cambridge University Press, 2009). For an overview of this emotion in early modern context see especially ‘An Anatomy of Envy’, pp. 42–64.

\(^{12}\)Judith Anderson, ‘Satanic Ethos and Envy: The Origin of Evil and Death in Paradise Lost’, Milton Studies 51(2010), 137–164.

\(^{13}\)Selected scholarship on the history of emotions: Barbara Rosenwein, Emotional Communities in the Early Middle Ages (New York: Cornell University Press, 2006); Thomas Dixon, From Passions to Emotions: The Creation of a Secular Psychological Category (Cambridge: Cambridge University Press, 2006); William Reddy, The Navigation of Feeling: A Framework for the History of Emotions (Cambridge: Cambridge University Press, 2001); Jonas Lillequist (ed.), A History of Emotions, 1200–1800 (London: Pickering and Chatto, 2012).

\(^{14}\)Elena Carrera (ed.), Emotions and Health, 1200–1700 (Leiden; Boston: Brill, 2013).

\(^{15}\)Fay Bound Alberti (ed.), Medicine, Emotion and Disease, 1700–1950 (Basingstoke: Palgrave Macmillan, 2006).

\(^{16}\)Barbara Rosenwein, Anger’s Past: the Social Uses of an Emotion in the Middle Ages (Ithaca, N.Y.: Cornell University Press, 1998).

\(^{17}\)Elena Carrera, ‘Anger and the Mind-Body Connection in Medieval and Early Modern Medicine’, in Emotions and Health 1200–1700, pp. 95–146.
**Methods and sources**

To explore the physiology of envy in the past, I intend to focus on sources that are associated with medicine and health. Primarily this suggests texts that fulfil two criteria: firstly that envy is being discussed in terms of its effects on the body and, secondly, that there is a clear objective towards the preservation of health or cure. The sources discussed here were identified using advanced, subject, and also proximity search combinations in the databases Early English Books Online (EEBO) and Eighteenth Century Collections Online (ECCO). The subject searches enabled me to focus on the texts that relate specifically to health, whereas proximity searches allowed for a more extensive overview of the language associated with envy and also the organs of the body related to it. All the texts referred to here can be accessed electronically through these databases and can also be consulted physically at the British Library via the English Short Title Catalogue (ESTC). The manuscripts were located through the specific database compiled by Voigts and Kurtz on Scientific and Medical Writings in Old and Middle English (eVK). More details on the ways these works can be accessed will be provided in the course of this discussion and in the reference section.

With the exception of a small number of manuscripts the texts used here are usually print sources drawing, directly or indirectly, from the principles of the Hippocratic-Galenic tradition18. This means that they subscribe to a humoral interpretation of illness and cure. Under the humoral paradigm, the aetiology of disease could be found in some kind of disturbance in the systemic balance of the four recognised humours in the body: blood, yellow bile, black bile and phlegm. Each of these humours corresponded to particular qualities that they themselves invoked cosmic elements. Blood was moist and hot, like air, yellow bile was hot and dry, like fire, black bile was cold and dry, like earth, and phlegm was cold and moist, like water. In every individual, one of these humours was perceived as being preeminate ascribing to that person a particular ‘complexion’. Complexion was a person’s humoral type and influenced their personality traits and physical appearance. A predominance of yellow bile, for instance, resulted in the choleric type. Knowing one’s humoral type was crucial both for prevention and cure, as each of them made one susceptible to different kinds of diseases. In humouralism, a state of absolute health was never in fact attained. What was sought, instead, was a state of equilibrium, a best possible balance of the humours within the individual. Although this was the ideal, the individual was prone to different misbalanced states, in which any one humour would prevail in an abnormal way, with adverse effects on health19.

Many factors could influence the state of the humours in the body. For this reason, in Galenism prevention was as important as treatment. The most effective method of preventing illness was practicing moderation, especially with regard to the six *non-naturals*: 1. Air; 2. Sleep and waking; 3. Food and drink; 4. Rest and exercise; 5. Excretion and retention; and 6. The passions20. Thus, preserving health entailed observing such rules as avoiding exhaustion, overeating, and indulgence in excessive passions. The passions were in need of moderation, since the complex unity of body, soul and mind underlying this tradition means they could act upon the spirits and humours and influence the humoral balance. Conversely, they could also be affected by it21. All passions were in need of moderation, both ‘positive’ and ‘negative’ ones. Joy, for example, was generally perceived as conducive to health, but sudden or excessive joy could have adverse effects. On the other hand, moderation could mitigate the effects of negative, harmful passions, such as anger, and even render them useful. For instance, Elena Carrera’s work has shown how moderated anger could be beneficial to health, or even therapeutic. Humouralism abided to the tenet of curing by contraries and for this reason, Carrera explains, the heat induced by anger could counteract the effects of coldness in the body22. Envy exists in no such positive state. This is because it is difficult to imagine gradation in envy and thus difficult to moderate it. Indeed, the positive counterpart to envy is a different emotional state: emulation. Although the distinction between envy and emulation appears in philosophical discourse, with regard to physiology the discussion is precluded to envy. The term ‘envy’ is the one being discussed for its effects on the body which are universally acknowledged as deleterious. The sources used here all use the term ‘envy’ and they imply malicious envy. They either focus on this term solely, or they discuss it within groups of certain other emotional experiences such as hatred, malice, jealousy and ‘revenge’; treated as a passion as in the desire for revenge. All of the above denote particularly opprobrious emotional experiences with no moderate state.

In the early modern period lay and learned people alike had access to knowledge concerning the humours and health preservation. The rules for a healthy life, in their sum a *regimen*, were the subject of many publications of domestic medicine. The majority of the sources studied here belong to this genre of medical writing23. However, as is evident from the literary descriptions of envy cited above, other kinds of sources, not obviously relevant to medical history, are also interesting in terms of what they reveal about envy and health. Such flexibility in the inclusion of sources is necessary, due to the paradoxical nature of the discussion of envy. Finding

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18 On the Hippocratic-Galenic medical tradition, see: Owsei Temkin, *Galenism: Rise and Decline of a Medical Philosophy* (Ithaca NY: Cornell University Press, 1973); Luis Garcia Ballester, *Galen and Galenism: Theory and Medical Practice from Antiquity to the European Renaissance* (Burlington, VT: Ashgate, 2002). For an overview of medicine in the period studied here, see Andrew Wear, *Knowledge and Practice in English Medicine, 1550–1680* (Cambridge: Cambridge University Press, 2000); also Mary Lindemann, *Medicine and Society in Early Modern Europe*, 2nd edn (Cambridge: Cambridge University Press, 2010).

19 The view of humoral imbalance as a cause of disease can, at some points, be reductive. See also Michael Stolberg, *Experiencing Illness and the Sick Body in Early Modern Europe* (London: Palgrave Macmillan, 2011), pp. 85–9.

20 On the non-naturals see Luis Garcia Ballester, *Galen and Galenism*, pp. 105–115. See also Lindemann, chapter 1, ‘Sickness and Health’, in *Medicine and Society*, especially pp. 13–14; 17–25.

21 Fay Bound Alberti, ‘Emotions in the Early Modern Medical Tradition’, in *Medicine, Emotion and Disease 1700–1950*, pp. 1–21 (p. 3).

22 Carrera, *Anger and the Mind-Body Connection*, pp. 139–143.

23 On the marketplace of printed vernacular works of medicine see Mary Fissell, *The Marketplace of Print*, in Mark Jenner and Patrick Wallis (eds), *Medicine and the Market in England and its Colonies*, c. 1450–1850 (Basingstoke: Palgrave, 2007), pp. 108–52.
evidence of the effects of envy on health is not as straightforward as consulting texts that traditionally address the subject of the effects of the passions on health. Envy is an emotion that is always described with reference to physiology, as noted above, but it is not an ‘interesting’ emotion in terms of physiology. I will clarify this phrase below.

Medieval and early modern medical writers explained the physical modifications caused by the passions through the concepts of natural heat and the movement of the spirits. The heart was the epicentre of the process. In the words of Pedro Gil Sotres: ‘the emotional dynamic was triggered by the introduction of heat and spirits into the heart or by their outflow from the heart’. This centripetal or centrifugal movement, as well as the quickness or slowness of this movement, is an integral part of the medical explanation of the effects of the passions. It is evident that under this theoretical system certain emotions have greater explanatory power. Anger, for instance, is fit for illustrating both the direction and intensity of movement: a quick displacement of the spirits and heat away from the heart. Conversely, fear is equally potent in illustrating the opposite effect while joy was the obverse of anger in instigating a centrifugal but slow movement of spirits and heat. Other passions do not share the same capacity. For this reason, the list of emotions that interest the medical writer is shorter than the list of emotions that interest the philosopher. Envy occupies the space between these two concerns: it is one of the most interesting emotions in philosophical and spiritual terms but it does not appear in the list of emotions that illustrate the effects of the passions on the body. For this reason, the data that inform an analysis of envy from the point of view of its physiology are necessarily fragmentary and derive from a multiplicity of sources. In this article, selected paradigms from spiritual and literary writing will also be included as long as they help illustrate a specific aspect of the physiology of envy.

The article begins by looking at the language associated with envy with a view to establish the main qualities of this emotion that underpin the discourse of its dangerousness. It proceeds to position envy within the humoral framework and to explain its aptness in suggesting pathology. The following section discusses how the diseased state is not only threatened, but realized in the envier’s body. Finally, the work discusses eighteenth-century views on envy and finds that the status of this emotion as disease becomes diminished under a new medical paradigm.

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25 For the medieval conception of emotions in medical theories see also the work of Simo Knuuttilla: Simo Knuuttilla, ‘Medieval Theories of the Passions of the Soul’, in Emotions and Choice from Boehmias to Descartes, ed. by Henrik Lagerlund and Mikko Yrjönsuuri (Dordrecht; London: Kluwer Academic Publishers, 2002), pp. 49–83, especially pages 56–58. Alternatively, see pages 212–218 of Simo Knuuttilla, Emotions in Ancient and Medieval Philosophy (Oxford: Oxford University Press, 2004).

26 Pedro Gil Sotres, The Regemins of Health’, in Western Medical Thought from Antiquity to the Middle Ages, ed. by Mirko D. Grmek (Cambridge, MA: Harvard University Press, 1998), pp. 291–318 (p. 313). This is a summarized version in the English language of Pedro Gil Sotres, ‘La hygiene des emociones’, in Regimen saniatis ad regem Aragonorum. Arnaldii de Villanova opera medica omnia, X.I, ed. by Luis García Ballestre and Michael McVaugh (Barcelona: Fundació Noguera-Universitat de Barcelona, 1990), pp. 803–27. available from the Wellcome library.

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27 Pedro Gil Sotres, ‘The Regimens of Health’ (p. 313): ‘Medieval physicians [...] reduced the number of passions from twelve to four or five, but they described in detail the somatic processes that they caused.’

28 On the lamp oil metaphor, radical moisture, and cause of death see Peter H. Niebyl, ‘Old Age, Fever, and the Lamp Metaphor’, Journal of the History of Medicine and Allied Sciences, XXVI (1971), 351–368; Jon Arrizabalaga, ‘Medical Causes of Death in Preindustrial Europe: Some Historiographical Considerations’, Journal for the History of Medicine and Allied Sciences, 54 (1999), 241–60.

29 London, British Library, MS Harley 7322, fol. 143’. The compilation includes moral and religious texts mainly in Latin. On the particular folio the diagram referring to envy is in the English vernacular but enveloped by Latin text.

30 John Harris, The Divine Physician, Prescribing Rules for the Prevention, and Cure of most Diseases (London: for George Rose, 1676), p. 53. ESTC no. 006086283.
‘corrosive’ or a ‘corroding’ passion. Common verbs associated with envy connote erosion and attrition. They include terms such as: ‘waste’, ‘wither’, ‘starve’, ‘pine away’, ‘consume’, ‘burn’ and ‘eat’. Most of these verbs converge on a sense of ‘eating away’. Jonathan Blagrave in 1693 discussed the nature of envy using a series of verbs that denote erosion. ‘Envy’, he noted, ‘pines [a man] away, it wastes his flesh, consumes his bones, eats his very heart’ 30. In general, a sense of the enfeeblement of the body always follows this emotion. ‘Envie’, Harris noted in 1676, ‘is the worst of all passions; and feedeth upon the spirits and they again upon the body’ 31. A text of 1600, concerned with practical advice on health, noted the physical aspect of envy: ‘it maketh a man to looke leane, swart, hollow eyed, and sicklie’ 32.

The language of envy illustrates the fact that this emotion is extensively connected to pathology. Envy is ‘disease’ in its generic form, bestowing on the individual experiencing it the look of infirmity. Moreover, it has the capacity to signify different diseases, greatly dangerous to the sufferer. More than that, it is connected to fatality and incurability. The physiological attributes of envy are at once generic and specific. Leanness and wasting of the body can connote sickness in general, but along with dryness can point to a specific physiological composition: that of sorrow and the melancholic type. However, sorrow is not adequate to describe the experience of envy. It is considered a composite passion and also includes anger. Envy’s materiality involves both of these emotions, but to different degrees. Anger, as the present analysis will show, is present in the envious body, but does not affect it to the same extent. Dividing envy in its core elements is useful because it leads to specific and recognizable physiological effects. Anger and sorrow are paradigmatic passions in the list of the medical writer. They are also contrasting in their physiological effects and this bears significance for the physiological make-up of envy. This will be made clearer in subsequent parts of this article. Before going on to present this aspect of envy’s materiality, the following section will firstly address the physicality of anger within the emotional experience of envy.

**Envy and anger**

Envy and anger are traditionally paired together in the moral and literary discourses. In Spenser’s *Faire Queene* (1590), for example, envy is presented riding on a wolf and wrath follows. Moral and pastoral texts can argue the harmful nature of these emotions, as they contradict notions of moral behaviour towards others. Both envy and anger threaten harm to others, often without moral justification. There is evidence to suggest that they are paired together in health writing as well. There are manuscript sources that pair these emotions together strictly for reasons of health preservation. Three manuscripts in the Sloane collection, held at the British library, each contain a folio that repeats the same advice against anger and envy. The sentence is always located in the opening section of a text that offers dietetic and other advice on health and reads thus: ‘If thou will keep long health/then keep this rule/that is to say flee anger wrath and envy/give thee unto mirth and mean travall’ 33.

The specific manuscripts all belong to the scientific or medical tradition. Their contents are diverse, but all the material contained relate to proto-science or medicine. Their titles also attest to this. In more detail, they are: MS Sloane 213 ‘Medicine Charms and Receipts’; MS Sloane 1609, ‘The Wise Book of Astronomy’; and MS Sloane 2270, ‘Eamys, Book of Medicines’. The quote above is directly taken from MS Sloane 2270. All other texts feature the same sentence with some variations. The Sloane 2270 text begins with the incipit above and goes on to give specific advice on the preservation of health: avoiding sweat, especially in the hot summer days; the ways to eat meat; proper eating in general, including avoiding of overeating; and advice on when and how much to sleep. Other subjects that occur within this text, and also in the other compilations referred to here, are astronomy, geometry, lucky and unlucky days, physiognomy, complexion and humours, and the positioning of the stars, as this is relevant to the taking of certain medicines.

There are enough similarities in these manuscripts to suggest that there is a common origin for the advice on anger and envy. However, the advice contained in this specific part of the texts – as well as in these compilations in general – suggests that the information presented is common knowledge. Tellingly, the text that precedes the incipit on preserving health in the 2270 Sloane manuscript is one that explains the consequences of ‘thunder occurring in each month. This kind of advice is practical and eminently useful and usable. In the whole text introduced by the particular incipit, no medical authority is cited and bodily function is not explained. The advice provided needs no reference to authority. Some rules, for example, include: ‘flee strong drinke [...] and burning meate’; fast not long in the morning ne fast too late in the evening’; ‘sleep well in the weare of the night and be early up in the morning’ 34. It is easy to remember and disseminate these rules. They are simply phrased, and due to the fact that the text states rather than explains these rules for health, they acquire a kind of mnemonic quality. The significance of these findings lies with the nature of the texts. These manuscripts single out anger and envy among the passions as deleterious to one’s health for reasons give thee unto mirth and meane travall’. The British library dates the creation of the manuscript in 1530.

30London, British Library, MS Sloane 213, fol. 112. The folio is dated around the fifteenth-century. The other manuscript containing the same sentence is: London, British Library, MS Sloane 1609, fol. 49’. The eVK, a database of early English scientific and medical texts, cites another manuscript that contains the same incipit. This is the Ad sanitatem conservandum, Yale Medical Library 47, fol. 103–104. The electronic research tool can be accessed in the British Library: *Scientific and Medical Writings in Old and Middle English Writings: An Electronic Reference*, compiled by Linda Voigt and Patricia Kurtz, 2000. A second edition of this database can be accessed through a link at <http://medevalacademy.org>.

31London, British Library, MS Sloane 2270, fol. 5’. The text reads: ‘If thou wilt kiepe thee long hoale than kiepe this rule that is to say flee anger, wrath and envy e.
that are not connected to sinful behaviour and moral decay. The practical advice of these texts and the inclusion of anger and envy within that context show that these emotions are commonly accepted and understood as injurious by nature. On the other hand, the fact that advice against these passions is offered within a context of dietic advice on health may also have its meaning. There is evidence to suggest that envy is shown to affect the viscera and to be counter-indicated in diseases of the abdomen and the intestinal tract. For instance, Jean Goeurot’s *Regiment of Life* (1550) specified ‘yre, enveye and melancholye’ as passions to be avoided in diseases of the bowels, especially colic.\(^3\)

Crucially, anger is also part of envy. Virginia Langum finds that medieval sources merge physiological elements of anger with envy in the body. For example, envy is typically associated with jaundice, and this ailment can be connected to various kinds of choleric; the corresponding humour to anger. Most significantly, anger is manifested in the envious body in a particular kind of swelling that is attributed to it. Notably, Langland’s personified envy, described above, has a body ‘blown with anger’. Langum distinguishes between two kinds of swelling in the envious body: one that is visible, which is associated with anger and the movement of vital spirits away from the heart; and one that is internal, which is connected to envy and the withdrawal of spirits towards the heart.\(^4\) This is a useful distinction. In the early modern period references to swelling by envy persist in phrases, such as ‘puffed with envy’, an envious heart being ‘puffed with anger’, and ‘swell with envy’. These verbs are also associated with pride, and often there is a double construct, as in ‘swell with pride and envy’. Most of these cases use the notion of swelling as metaphor. However, on occasion, the metaphor works by threatening the physical limits and workings of the body. A political text of 1658, for instance, warned that an envious heart is ‘like a tympany which swells up the man until he burst asunder’.\(^5\)

Except for movement of spirits, anger is also connected to heat. The heat of anger, though, seems to be rendered ineffectual as far as the materiality of envy because the heat of choler is connected to envy and the withdrawal of spirits towards the heart.\(^6\) This is a useful distinction. In the early modern period references to swelling by envy persist in phrases, such as ‘puffed with envy’, an envious heart being ‘puffed with anger’, and ‘swell with envy’. These verbs are also associated with pride, and often there is a double construct, as in ‘swell with pride and envy’. Most of these cases use the notion of swelling as metaphor. However, on occasion, the metaphor works by threatening the physical limits and workings of the body. A political text of 1658, for instance, warned that an envious heart is ‘like a tympany which swells up the man until he burst asunder’.\(^6\)

The excerpt above, explaining the physicality of envy by analogy, effectively states that anger is only nominally part of envy and does not affect its materiality to a great extent. However, this omission is not without its consequences. The heat of anger can be a positively imbued physiological element. As has been noted above, it can be useful and even therapeutic in some cases. More than that, as the element of heat becomes negated, the constitution of envy cannot be mitigated. It thus remains primarily expressed through coldness and dryness, both qualities antithetical to the very essence of life posited by Galenism.

**Envy and melancholy**

It becomes evident, then, that the physicality of envy is primarily connected to sorrow. From a physiological perspective, envy is a branch of the melancholic complexion. Texts of regimen categorise envy under the melancholic type. In 1564 Philip Moore published *The Hope of Health*, a text on the preservation of health that aimed to disseminate knowledge of the qualities of medicinal herbs among the poor. As is usual with this type of medical writing, information on the humoural composition of the body is included as the basis of physiological and, mainly, therapeutic understanding. In the relevant section of Moore’s book the melancholic body is recognized by a list of signs. Among these signs are ‘coldness and dryness’, ‘leanesse and roughness of the whole body’, ‘blacknesse or swartnesse of the face and skinne’, and also ‘envie’.\(^7\)

In Goeurot’s *Regimen*, quoted above, envy is also assigned to the melancholic.\(^8\)

The idea that a melancholic was physiologically inclined to be envious also had currency in the moral discourse. The fourteenth-century *The Book of Vices and Virtues*, itself a translation of a significant medieval moral work, observed that each person is tempted according to their individual weaknesses. Thus, the devil leads one to temptation by taking advantage of each person’s physiological make-up and the fact that the predominance of a specific humour inclines one to certain sinful emotions and behaviours. Accordingly, he incites the choleric to wrath and the melancholic to envy.\(^9\)

As Lancelot Andrews explained in 1642, ‘for the melancholy [the devil] laies baites of envy: and so for every one according to their natural inclinations and humours, such baites as may entice them soonest’.\(^10\) In 1576 Levinus Lemnius reiterated the notion in his *Touchstone of Complexions*. Lemnius (1505–1568) was an eminent Dutch physician, but his work was well known in England, going through three editions in translation. The work is an amalgam of religion, rules for health and practical remedies, authoritative medical notions, and also arcane notions on the connection of the Holy Spirit to the spirits of the body. The occultism of *The

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3\(^{3}\)Jean Goeurot, *The Regiment of Life, Whereunto is added a Treatise of the Pestilence* (London: by T. Phayer, 1550; first publ. 1544), in *Early English Books Online* (http://eebo.chadwyck.com) (Accessed 5 June 2016) (img 69 of 197, unpaginated). ESTC no. 006177388.

4\(^{3}\)Virginia Langum, *Medicine and the Seven Deadly Sins in Late Medieval Literature and Culture* (New York: Palgrave, 2016), pp. 113–14.

5\(^{3}\)C. D., *Vindiciae Magistratuum, or a Sober Plea for Subjection to the Present Government* (London: by Henry Hills, 1658), p. 21. ESTC no. 006116915.

6\(^{3}\)David Papillon, *The Vanity of Lives and Passions of Men* (London: by Robert White, 1651), p. 404. ESTC no. 006145300.

7\(^{3}\)Philip Moore, *The Hope of Health wherein is Contained a Goodlie Regimente of Life* (London: by Iion Kyngston, 1564), p. xv. ESTC no. 006181709.

8\(^{3}\)Goeurot, *Regimen*, (img 9 of 197).

9\(^{3}\)The *Book of Vices and Virtues: a Fourteenth Century English Translation of the Somme Le Roi De Lovens D’ Orleans*, ed. by W. Nelson Francis (London: Early English Text Society, 1942), p. 156. On the connection of melancholy to envy and anger see also ‘Appendix A: Acedia and the Humours’ in Siegfried Wenzel, *The Sin of Sloth: Acedia in Medieval Thought and Literature* (S.I.: University of North Carolina Press, 1967), pp. 191–94.

10\(^{3}\)Lancelot Andrews, *The Moral Law Expounded* (London: for Michael Sparke et al., 1642), p. 48. ESTC no. 006105825.
Touchstone is not an oddity within an early modern medical context. Although the medical paradigm is ostensibly Galenic, early modern medical discourse was characterized by heterogeneity. Philosophical, metaphysical and also religious ideas could be accommodated within this discourse paradoxically without leading to its questioning. In the words of Margaret Healy: ‘Religious, alchemical, Neoplatonic and Paracelsian ideas are all implicated in the rise of an occult discourse in some medical books’. It is this plurality that reiterates the connection of material melancholy (black bile) to envy within a health context. The fact that Lemnius can incorporate religious notions in his medical text articulates and propagates the connection of black bile with envy. A text that would be based solely on medical theory and without an objective towards medicine as practice might not have done so. Although there is evidence of the association of black bile with envy in authoritative texts of the medical tradition, it is in the health preservation publications that it is sustained. Works such as The Touchstone and, generally, published medical works of the time, are not solely deposits of medical knowledge. They are also vehicles for reputation and authorship. In addition, their objective towards medical practice and therapeutics, rather than medical theory, affords them flexibility of interpretation. Writers can posit their own definitions of health, referring to authorities, but also subsuming authority to experience. Nicholas Culpeper, a prolific author of medicine-related works, could maintain in his English Physician (1652) that the benefits of the thistle to health are important, although contemporary medicine found them controversial. He insisted that a ‘decoction of the thistle in wine being drunk, expels superfluous melancholy out of the body’. He found this greatly beneficial as excess of melancholy in the body, leads to ‘many evils’ and also to ‘envy’. The implication here is significant because it emphasizes the connection between the humour of black bile and inducement to envy. Thus, separating himself from common opinion, Culpeper preserves an association within the medical discourse that was most commonly found in different traditions, mostly moral and pastoral.

Culpeper was a physician and an astrologer. This branch of medical discourse, still operating in the early-modern period, offered additional affirmation of the connection between melancholy and envy. In Astrological-physical discourse, envy and melancholy are ascribed to the influence of the same planet: Saturn. Texts that use astrological information as part of therapeutics repeatedly articulate the link between Saturn and envy. They also commonly ascribe images of social strife and social harm to this planet. These usually follow on the emotions governed by Saturn, such as envy and hatred, and include war, murder, suspicion, and evil thoughts. Significantly, this association can account for the fact that melancholy and envy share some of their most important signifiers. Famously, Saturn was the planet governing the melancholy disposition, and it correlated to the spleen. Saturn was associated with bitterness and coldness, due to its distance from the sun, and with dryness since antiquity. As accounts expanded from the basic qualities governing the god-planets of ancient astrology to include physiognomic and characterological attributes, Saturn acquired the properties that reflected onto the image of the melancholic person. Bitterness, dryness, excessive leanness, despite consuming food, and the ‘black colour’ became some of the characteristics associated with Saturn and the melancholic – and, by implication, with the envious.

Envy, then, shares a common frame of reference with inherently pathological and pathogenic elements. Coldness and dryness are qualities that threaten the organism’s vital life essences, moisture and heat; melancholy is a condition that suggests a series of bodily and mental states of disorder; Saturn is vested with a malevolent influence both on the person under its influence and also with connotations of greater strife. These factors all speak to the unique place of envy in conveying the pathological. Taking into account the physiological connection of envy to melancholy, it helps not only to elucidate its dangerousness to the individual and to society, but also to better understand its nature as disease to the one experiencing it.

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44Levinus Lemnius, The Touchstone of Complexions Generallye Applicable, Expedient and Profitable for all such, as be Desirous and Careful of their Bodylye Health, trans. by Thomas Newton (London: by Thomas Marsh, 1576), fol. 23: ESTC no. 006203107.
45Margaret Healy, Fictions of Disease in Early Modern England: Bodies, Plagues and Politics (London: Palgrave Macmillan, 2001), pp. 40–1. On this subject see also: Angus Gowland, The Worlds of Renaissance Melancholy: Robert Burton in Context (Cambridge: Cambridge University Press, 2006), especially pp. 33–4 ‘The nature and Status of Medical Inquiry’ and pp. 50–3 ‘Neo-Galenic Occultism’. On how to approach the heterogeneity of the early modern medical world, see also Stolberg, Experiencing Illness, pp. 84–5.
46Two of the works that serve as the basis for the scheme of the four temperaments – dividing healthy people into categories according to humour and attributing separate features in each of them – ascribe the term ‘invidioso’ to the humour black bile. These are, according to Klubansky et al., ‘A treatise falsely attributed to Soranus, but possibly dating from third century A.D.’ and Vindician’s Letter to Pentadius. Raymond Klubansky, Erwin Panofsky and Fritz Saxl, Saturn and Melancholy: Studies in the History of Natural Philosophy, Religion and Art (London: Nelson, 1964), p. 62.
47Nicholas Culpeper, The English Physician Enlarged […] Being an Astrological-Physical Discourse of the Vulgar Herbs of this Nation (London: by Peter Cole, 1653, first publ. 1652), p. 354. ESTC no. 006086018.
48Culpeper, p. 354.
49The connection is mostly made in the tradition of vices and virtues, but see also Virginia Langum, Medicine and the Seven Deadly Sins for the actual medical basis underlying this tradition. See Wenzel, ‘Appendix A’ for some examples of medieval works that link melancholy to envy and anger, p. 193.
50Alan Chapman, ‘Astrological Medicine’, in Health, Medicine and Mortality in the Sixteenth Century, ed. by Charles Webster (Cambridge: Cambridge University Press, 1979), pp. 275–300; for a discussion on astrology and the meaning of the disease experience, see Michael McDonald, Mystical Bedlam: Madness, Anxiety, and Healing in Seventeenth-Century England (Cambridge: Cambridge University Press, 1983); also Stolberg, Experiencing Illness, pp. 39–41; and for information on earlier periods see Roger French, ‘Astrology in Medical Practice’, in Practical Medicine from Salerno to the Black Death ed. by Luis Garcia Ballester and others (Cambridge: Cambridge University Press, 1994).
51Examples include: Robert Greene, Planetomachia (London: for Thomas Cadman, 1585), in Early English Books Online (http://eebo.chadwyck.com/home [accessed 5 June 2016]) (img 8 of 60), ESTC no. 006177546; Thomas Tryon, A Way to Health, Long Life and Happiness (London: by H.C. for R. Baldwin, 1691, first publ., 1683), p. 321, ESTC no. 006126080; J. S. The True Fortune-Teller (London: for E. Tracy, 1698), p. 123, Wellcome Catalogue no. b10771876.
52Klubansky et al., Saturn and Melancholy, p. 147.
53Klubansky et al., pp. 137–8.
54Klubansky et al., p. 146.
The discussion of envy that is concerned more with the pernicious effects of this emotion to society, places emphasis on the eyes, the malevolent gaze, the noxious breath, or the dangerous touch. In essence, factors that enable infection and contagion. When the focus is on the ways envy is deleterious to the envier, the discussion turns to the withering of the body and mostly to the abdomen. ‘Envy’, John Scott wrote in 1696, ‘swells the hypochondries’.[55] A satirical work from 1683 described envy as a ‘melancholy wight’ and ‘a thin-chop tretch with shrunk-up gut’.[56] The references can be understood as linked to the humour of the black bile. The seat of black bile is the spleen and is most commonly associated with diseases of the intestinal tract. Black bile, moreover, is connected to malnutrition and thus to leanness and also to all the main signifiers of envy. The connection to black bile goes a long way in explaining the physicality of envy. More than that, the nature of black bile can account for this emotion’s particular aptness for the disease metaphor.

Black bile is unique among the humours because it was not as fixedly defined as the others were. ‘The concept of black bile’, Rudolph Siegel notes, ‘was based partly on observation, partly on speculation, and unfortunately, too often on conclusion by analogy’.[57] With no firm empirical foundation, black bile lent itself easily to the assumption that it was found at the root of a variety of grave diseases, both of body and mind. This was helped by the extensive and pejorative connotations of the term ‘melas’ (black) in its name. This humour was associated with such disparate diseases, including fever, jaundice, leprosy and mental ailments. It was also present in ulcers and cancers and in excessive quantities in tumours and wounds. Its presence often connoted incurability. Difficulty of cure was also commonly attributed to envy. All the diseases that converge on the black bile are part of the language of envy. Envy is like a wound and tumour, an ulcer of the mind, and canker of the body. Envy’s corrosive action on the body can also be referred to an integral quality of black bile. Galen explained black bile’s sharpness and acidity (the quality of oxys) as ‘stinging without heat’.[58] Envy, then, acquired many of the attributes of this humoural element. What is more, as black bile was vested with an extensive capacity to convey the pathological, so was envy also capable of suggesting disease. Indicatively, when Lemnius wanted, in Touchstone of Complexions, to explain to his readers the dry complexion, he encouraged them to bring to mind the ‘physiognomy and shape of envy’, described by Ovid.[59] He felt that this image best illustrated the swart, grim face and the body of the person toiling under this condition. Lemnius was not referring to the passions in this section. He was describing, in most vivid terms, a pathological state of the body. The dry state, he noted, was ‘repugnant to the laws of nature’ and a threat to the prolongation of life. By illustrating this state through the representation of envy, Lemnius equates the image of envy with the image of pathology.

### Envy and improper nourishment

The previous sections positioned envy within the humoral framework of physiology as closely linked to the melancholic humour and to the qualities of dryness and coldness. This association helps explain this emotion’s unique capacity to suggest pathology. This section will focus on the ways the pathological regarding envy can be realized. A common element in representations of envy is the idea that it hinders the proper digestion of food and prevents or interferes with the proper nourishment of the body. This is an especially dangerous notion in a concept of health as heavily based on diet as Galenism was.

The medical model that is based on Galenic principles and prevails, in various forms, until the late seventeenth-century posits, in essence, a dietetic view of health. Nutrition is paramount to maintaining, and restoring, the healthy state. The importance of diet and food consumption within this medical thinking cannot be overstressed. Under the early modern paradigm, food is not fuel but replenishment of the body’s vital sources. Through digestion and assimilation food becomes blood, humourus, flesh, and spirits. The whole physical and mental framework of the body depends upon proper food intake and, most importantly, proper assimilation of food into the body’s frame and function. In brief, the process can be outlined in these essential steps. Food is broken down in the stomach in a process that was imagined as being similar to ‘cooking’. The breaking down of food was achieved by means of the body’s internal heat. The concocted food would then pass into the intestines to be further refined and for the wastes to be evacuated. Crucially, before this stage of evacuation, the juice, which was the product of concoction, would pass into the liver where it was believed to turn into blood. At this stage the unrefined blood contained all the other three humours. At later stages, as blood was distributed around the body, it was drawn to the organs that further refined it into each humour accordingly (e.g. gallbladder-choler, spleen-black bile). Furthermore, the blood that was the result of concoction, first in the stomach and then in the liver, was drawn to the other organs of the body and assimilated to their nature. The blood that was drawn to the heart was turned into the spirits. Hence in this model, all the operative functions, both physical and mental, depended on the process of concoction and proper digestion.[60] Conversely, improper digestion is considered especially disruptive of health. In the words of Ken Albala:

> An improperly digested meal not only causes mild discomfort but is the origin of many diseases. One upset stomach will have resounding effects through every physiological function of the body. One corrupted food product will foul not only the blood and the humors but ultimately the flesh, the spirits, and the mind that is nourished by them. This is not merely a matter of proper nutrition but the foundation of all health [...]’[61]

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53 John Scott, The Christian Life Part III: wherein the Great Duties of Justice, Mercy, and Mortification are fully Explained and Inforced (London: for Walter Kettilby, 1696), p. 309. ESTC no. 006125320.
54 Robert Dixon, Canidia, or The Witches, a Rhapsody in five parts (London: by S. Roycroft for Robert Clavell, 1683), in Early English Books Online. <http://ebo.chadwyck.com/home> [accessed 5 June 2016] (ting 160 of 304). ESTC no. 006077608. The work is a verse satire on social ills by a religious author.
55 Rudolph Siegel, Galen’s System of Physiology and Medicine: an Analysis of his Doctrines and Observations on Bloodflow, Respiration, Humors and Internal Diseases (Basel: Karger, 1968), p. 258.
56 Scott, p. 258.
57 Lennius, Touchstone, fol. 69r.
58 An overview of the processes of digestion and assimilation can be found in Ken Albala, Eating Right in the Renaissance (Berkeley and Los Angeles: University of California Press, 2002), pp. 54–63.
59 Albala, p. 54.
In light of the above we can understand more fully the impact of the many representations that depict the figure of envy in the act of eating. This is a common component of literary representations. Ovid’s enduring image presented envy ‘eating viper’s flesh’ while Spenser’s envy chews on a ‘venemous toad’. In general, envy is presented as eating flesh, specifically eating raw and rotting flesh. At times, the meal of envy is not a physical one. Langland’s envy, for instance, complains of stomach pains and seeks adequate medicine because he is constantly feeding on envy and ill will and these are ‘hard to digest’:

For many years I might not eat as a man ought
For envy and ill will are hard to digest
Is there any sugar or sweet thing to assuage my swelling
Or any diapenidion\(^a\) that will drive it from my heart
Or any shrift or shame, unless I have my stomach scraped\(^b\)

These representations often include references to all the important organs necessary for the function of digestion: Ovid’s envy has ‘black, decayed teeth’ and a tongue coated in venom\(^a\), Langland’s envy obsessively bites his lip and has ‘a serpent’s tongue’\(^a\). Spenser’s envy has ‘canker’d teeth’, poison running down his jaw and is presented in the act of chewing, not only his horrid food, but also his own entrails\(^a\). The grotesque nature of these meals affirms two of the most defining and contradicting characteristics attributed to envy: that it combines baseness with extraordinariness. Envy is a base emotion in the desires it records, but also vested with destructive, supernatural power in its version of the evil eye. Here, the fictional representation of envy suggests a powerful ability to take food that is raw, poisonous, or corrupt, the ingestion of which would kill any figure defined within normal physiological limits. With the exception of Langland’s envy, which suffers the expected physical effects from its fictional meal, all other representations suggest that horrid food is the natural meal for envy. By itself this depiction reveals something of the nature ascribed to envy. As early modern food is directly assimilated to one’s flesh, the implication is that the food that is similar to one’s nature is more easily digested. Envy’s capacity to suffer a meal that would kill another suggests its horrific nature.

In a system of thought that assigns such importance to digestion and assimilation of nourishment into the body, food can also become a powerful pathogen. This is especially the case with raw or partly digested food. As Michael Stolberg observes, in discussing the experience of illness in an early modern context, lay people may not have been fully conversant with the practicalities of concoction, but for them ‘it was sufficient to know that raw food needed to be heated in the body so as to lose its “raw”, impure, and harmful nature’\(^a\). Indeed, the harm of raw and unrefined food is directly connected to corruption of the body’s processes and a cause of ‘swellings, ruptures and innumerable diseases’\(^a\). Accordingly, the imagery of raw, or half-eaten, horrid food that accompanies depictions of envy would have been a clear sign of this emotion as disease.

The association of envy with improper nourishment is repeatedly made both metaphorically and literally. As has been noted in a previous section, the verbs associated with the effects of envy converge on the sense of privation and withering of the body. In addition, envy is shown to specifically affect the organs and process of sustenance. Envy is said to ‘fret the heart’ and ‘to marre digestion’\(^a\). Other texts show envy associated with abnormal swelling, which also interferes with proper nourishment. Envy, John Scott explained, ‘swells the hypochondries, which by drinking up the nourishment of the neighbouring parts, makes the whole body lean and meagre’\(^a\). Scott, a spiritual writer, essentially provides a physiological explanation for the weakened appearance of the envious body. In general, the two token signs of the envious body, its dryness and leanness, can be attributed to a lack of moisture and a kind of debility, which is the result of improper nourishment. Excessive thinness directly suggests undernourishment. However, moisture, especially in its sense as a humiral quality, is generated in the body by relevant, appropriate nourishment as well. Indeed, the direct and visible effects of this emotion in the body of the envier seems to be connected to the disruption of the vital process of nourishing and sustaining the body. In a ‘tragical anecdote’ aiming to illustrate the ‘baneful effects of envy’, cited in a work of health prolongation, a young lady is shown in a state of dire physical weakness due to envy: 

| Original | Translation |
|----------|-------------|
| ‘her flesh withered away, her appetite decayed, her strength failed, her feet could no longer sustain her tottering emaciated body, and her dissolution seemed at hand’\(^a\) | ‘her flesh withered away, her appetite decayed, her strength failed, her feet could no longer sustain her tottering emaciated body, and her dissolution seemed at hand’\(^a\) |

The lady herself admits that chronic envy ‘preying on her vitals’ proved fatal to her. The actual physical cause of her death seems to be undernourishment and under-sustenance of the body.

In essence, it can be said that the physiological discourse complements the established idea of envy as an emotion connected to deprivation. Specifically, envy records the relative deprivation of the subject experiencing it with regard to the envied person and the envied quality\(^a\). That is, envy registers a perceived inferiority of the subject experiencing it in relation to the object of envy. As such, it is an emotion that suggests more about the envier than about the object towards which it is directed. What it is more

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\(^a\) Ovid, *Metamorphoses*, p. 47, (II. 769).
\(^b\) Spenser, *Faire Queene*, p. 669, (I.4. 266).
\(^c\) Langland, *Piers Plowman*, p. 669, (I.4. 266).
\(^d\) Ovid, *Metamorphoses*, pp. 47–8, (II. 777–8).
\(^e\) Langland, *Piers Plowman*, p. 322, lines 83 and 86.
\(^f\) Spenser, *Faire Queene*, p.669, (I.4. 263–64).
\(^g\) Stolberg, p. 123.
\(^h\) Albala, p. 54.

\(^70\) ‘Envy’, in *The Rich Cabinet furnished with a Variety of Excellent Discriptions* (London: by John Beale, 1616), pp. 41–46 (p. 44).

\(^71\) John Scott, *The Christian Life Part III*, p. 309.

\(^72\) The anecdote appears as a note in a translation of Luigi Cornaro’s *(1467–1565)* *Sure and Certain Methods of Attaining a Long and Healthy Life* (Philadelphia: Reprinted for the Rev. M. L. Weems, 1793; first publ. 1558), pp. 36–37, p 36. ESTC no. 006457396. It is difficult to ascertain the exact date and author of this anecdote on envy as Cornaro’s work went through multiple editions from its original conception to the nineteenth century, with differences in the text. According to William Walker, the 1793 American edition is based on the 1737 translation, ‘Luigi Cornaro, a Renaissance Writer on Personal Hygiene’, *Bulletin of the History of Medicine* 28 (1954), 525–34 (p. 531).
suggestive of is this perceived lack on the part of the envious person. The image of the envious body as a malnourished body, deprived from all vital elements of life undoubtedly bears great power for metaphor, but it is also, in the early modern context, a literal, logical consequence of the nature of this emotion. As envy is to begrudge others of what they have or of whom they are, it also does begrudge the body its nourishment and deprives the body of it. In 1684, Richard Allestree, a bestselling author of devotional and conduct literature, made exactly this point when speaking of the dull eye of envy:

'Tis true indeed that discontent and envy shed themselves into the eie, they dwell there in a cloud, the eie flags and is dull, and do's so certainly betray a niggard, envious heart, that we may see it grudges spirits to its own eies, and do's restrain that current that is to feed them with a vigorous life.

This passage is of great interest both for the physicality of envy and also for the way it reverses the concept of the evil eye. The all powerful evil eye associated with envy, which can cause harm, is in reality a harmed organ, deprived of the life-giving spirits. In a healthy body, the blood that is the product of concoction leaves the liver through the venous system to follow different directions and carry nourishment to the whole body. The blood that reaches the heart is involved, along with the intake of air, in the production of the life-sustaining vital spirits. Allestree uses this physiological principle to create an image of envy as suppression of vital nourishment. The envious heart functions in the opposite way to that of the healthy heart: instead of supporting, distributing, and sustaining, it deprives the body. In short, envy signifies and works by negation: it negates sustenance and the proper nourishment of the body. It is this aspect of envy that most aptly materializes the pathology threatened by this emotion.

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The representation of envy as pathological and its connection to dryness, coldness, and improper nourishment are meaningful mainly under the humoural paradigm, but can appear until the early part of the eighteenth-century. It also seems to be the case that this representation persists even at times when the Galenic theory meets with opposition, as happened for instance, in the latter part of the seventeenth-century with the Helmontians. Helmontians were supporters of the Flemish doctor Jan Baptista van Helmont (1579–1644), himself influenced by the Swiss physician Paracelsus (1493–1541), who rejected much of the concepts of Galenism and the idea of humoural imbalance as cause of disease. They were briefly influential in England in the 1660s. Everard Maynwaringe was a Helmontian and advocate of chemical medicine. In his work on the prolongation of life, he also characterized envy as ‘disease’ and understood it as ‘enfeeblement’ of the body. He wrote: ‘Revenge, jealouisie and envy are the ulcers of the mind, continually lancinating, corroding or inflaming; introducing a secret consumption, wasting the spirits and radical moisture, and infeebling all the faculties’.

Although Maynwaringe does not follow the humoural theory, he primarily assigns dryness to envy. In addition, in this particular work his language is not completely novel. He describes passions as ‘dyscracies’ of the mind and he understands the effects of passions similarly to the established paradigm. For example, the effects of melancholy are mainly understood through the spirits of the body, but they also include ‘increasate humours’ and the diseases traditionally associated with it. Moreover, he envisages an indissoluble connection between body and mind that underpins this emotion’s capacity to affect all the faculties.

In short, Maynwaringe’s work does not offer a substantially altered view of the effects of envy on the body. Envy remains pathological in a way that is keeping with the discussion here. Helmontian medicine does not represent a turning point in the physiology of the passions. Its peak was brief and, despite professing a strong antithesis to Galenism, it failed to replace it and was later subsumed to it. A change in the perception of this emotion will come in the following century when new medical theories displace the long-ingrained humoural paradigm.

The following section considers this change in detail.

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Eighteenth-century envy: Stimulant or sedative

In 1799, Dr Willich described the effects of envy on the body and the life of the envious in recognizable terms. Envy was linked to fever, loss of appetite and sleep, and was characterized as ‘corrosive’. In spite of this, the description had one significantly novel characteristic: it posited that envy was deleterious to the envious under certain, not all, conditions:

Envy deprives those addicted to it of an appetite for food, of sleep, of every enjoyment, and disposes them to febrile complaints; but in general it is hurtful to those only who brood over and indulge in this corrosive passion. For the world contains vast numbers, who show their envy at almost every event productive of good fortune to others, and who yet often attain a very great age.
Willich was writing at the end of the century and by then the medical definitions of health and disease had undergone a shift away from humoralism towards medico-scientific theories involving the laws of matter and motion. The physiology that came to prevail in medical discourse towards the late seventeenth-century is spurred by the impact of scientific discoveries, primarily William Harvey’s discovery of the circulation of the blood (1628), and the influence and impact of Newton’s physics. The former broke decisively with Galenic tradition and the notion of the production of the blood in the liver. The latter introduced a concept of dynamics with extensive applications to fields other than physics, including medical theory. This led to the creation of various schools of thought that offered explanatory models of the workings of the body based on scientific principles. Bound Alberti traces this transition and demonstrates how the combined impact of the iatrochemical approach of Thomas Willis, the mechanical physiology of Pitcairne and Hoffman, the hydrodynamic physiology of Boerhaave, the models of sensibility and irritability of Von Haller and the neurophysiology of Cullen created new interpretations of the workings of the body. Specifically, it ‘helped redefine relations between the corporeal and the incorporeal functions at the level of theory, and facilitated a concept of the body that operated according to distinct laws of motion, with or without the presence of a soul’. In the ensuing modified physiology, the heart, hitherto equated with the seat of the soul and the passions, loses its prominence. The body ceases to be a ‘vehicle’ for the soul and is progressively perceived as a ‘machine’, the operations of which follow natural laws and can be measured and analyzed according to them. This has profound implications for the way the effects of the passions on the body are comprehended and articulated.

At the turn of the century, mechanical theories conceive the body as a closed system of solid parts containing fluids, the pressure and flow of which are governed by hydrodynamic principles. Herman Boerhaave (1669–1738), a leading figure in eighteenth-century medicine, posited new definitions of health and disease which followed on this model:

> For as the very being of health consists in a moderate, free and equal motion of the blood, or in the equality of pulse and tone of the just temperament and quantity of fluids; so the seat of every disease, and the immediate cause thereof, is placed in the motion, as it is immoderate, obstructed or unequal, by reason of the lost distinction of the pulse and tone of the solids, as also the intemperament and disproportion of the fluids.

As the passage above illustrates, and as Luyendijk-Elshout notes, in Boerhaave’s system of physiology ‘action’ instead of function becomes the key. In this action-oriented conception, the circulation of the fluids is paramount. Accordingly, health for Boerhaave depends on free and unobstructed movement, whereas disease is described in terms of stagnation, or constriction in the body that results in unusual or defective motion. Both disease and also ‘pathological’ emotional states could be explained in such mechanical terms. Melancholia for Boerhaave could be understood as caused by the accumulation of pathogenic materials in the brain as the result of defective motion in the body. The Boerhaavian model remained highly influential for a great part of the eighteenth-century and was consolidated through medical teaching. For Willich as well, passions can be dangerous because they can produce irregular motions in the body. Whereas the ‘happiest’ physical state is to be found in ‘a moderate degree of gaiety’, which allows for ‘the circulation of the fluids and perspiration [to be] carried on with proper vigour; [and] thereby obstructions [to be] prevented or removed’.

In order to define the effects of envy on the body, it is necessary to understand what kind of movement it produces in the body. This new perspective brings more pressingly to the fore the composite nature of envy. As William Falconer noted when writing on the influence of the passions on the disorders of the body:

> Envy is a passion of a rather equivocal nature, being stimulant or sedative, according to circumstances, which is natural enough to suppose, it being composed of passions of an opposite kind, namely, sorrow and anger. It is said to cause paleness of the complexion, and to excite the biliary discharge. Its other effects resemble those of the passions of which it is composed, accordingly as either of them predominate.

The key terms in this description are the words ‘stimulant’ and ‘sedative’. They encapsulate the concern with acceleration or retardation of the fluids and the tension of the solids. They also...
emphasize the move away from the significance of natural heat and the qualities of the humours as factors in pathology. This bears significant implications for the way envy is comprehended. In the humoural paradigm, the physiological disorder that envy threatens to induce in the body is far graver than the one Falconer’s description would allow. The experience of the envious in a system that is governed by the humours includes the impairment of vital processes, such as the loss of moisture and heat, which threaten to thwart its very survival. In this sense, envy is always pathological. The kind of envy that Falconer describes above is a passion with a physiological manifestation which, as given here, is not necessarily any more harmful to the body than any other passion, or indeed, more potentially dangerous than any of the passions of which it is comprised.

This change is cemented by the fact that these new discussions of envy tend towards ellipsis. This is different from the language tropes that characterized the previous discourse. The early modern paradigm tended towards abstraction and high symbolism. However, it used terms with significant physiological connotations intelligible by all. The description by Falconer cited above does not fully articulate the effects of envy on the body. Rather, it requests that the reader extrapolates from the effects of the passions that compose it to the make-up of envy. This is common. Henry Rose, in his dissertation of the effects of the passions on the body, remarked on the paleness of envy, the biliary discharge associated with it, and he also ended the section by the statement: ‘its other effects resemble those of the passions of which it is composed’98. This new trope in the discourse of envy bears witness to the modified position of this emotion. Envy is effectively de-pathologized. It is no longer singled out, nor does it command the same gravity that it did under humouralism. In other discourses, such as the sociological, the spiritual, and within conduct literature, envy will continue to impress terrible images of strife and disorder. However, where the workings of the body are concerned, envy can never again hold the same capacity to shock. As the quotation that opens this section suggests, envy is only hurtful to those who ‘are addicted to it’, ‘indulge it’ or ‘brood over’ it. In essence, this sentence suggests that envy is not pathological in itself, but one’s attitude to it can be. The harm no longer derives from the ontology of the emotion, but from the modern idea of obsession. Essentially, Willich and his remark on attitudes towards envy makes it possible to ascribe gradation to a passion that was previously defined in the absolute. It is now possible to articulate a non-harmful experience of envy.

Conclusions

This article has shown that the language associated with envy, which paints a grotesque image of it, frequently connoting disease, suffering, and fatality, can be said to have a basis in the physicality of this emotion, as was understood under the humoural paradigm. It has further shown that under a humoural, cardio-centric, and heat-based economy of body and emotion, envy is always pathological. This means that it is always experienced as disease and engenders disease. Firstly, the nature of this emotion is closely linked to elements that denote deviation from a desired healthy state. If the humoural paradigm posits a spectrum of health, rather than an absolute state of it, then black bile and the qualities of dryness and coldness are positioned the furthest away from the ideal condition. Dryness and coldness directly contradict the necessary qualities of life – moisture and heat – while black bile is a controversial humour with few benefits. Secondly, its action on the body interferes with vital processes of both health preservation and also cure. Proper concoction, of which heat was an agent, was a process integral to recovery from disease in the same way that improper concoction and digestion could lead to disease99. It can be said, therefore, that under the humoural paradigm, envy is properly and comprehensively pathological. Moreover, this article has shown that this ceases to be the case by the end of the eighteenth-century. Envy is still viewed negatively as a cause of conflict and animosity within society; however, its physicality does not command the same gravely pejorative connotations. Once the medical framework changes from humoural to medico-scientific, the notions of health, disease, and the way bodily processes are described change also. The new language of physiology, the language of ‘ebb and flow’, as Alberti terms it100, places the focus on envy’s composite nature. Unlike the previous paradigm, where envy is primarily understood by the signifiers of sorrow, in the new vocabulary of physiology anger and sorrow have an equal bearing in the nature of this emotion. Their inherent contrast means that envy is perceived in a dichotomy with diametrically opposed effects on the body. This dichotomy, in turn, diminishes the impact of envy as it pushes the discourse away from specifics and into constant references to the effects of other emotions. Envy is effectively de-pathologized and loses its standing as disease.

The change in the status of envy can be epitomized by the difference in attitude towards envy between the advice on health in the fifteenth-century manuscripts cited here and Willich’s account of envy. In the manuscripts, and generally in texts concerned with the preservation of health and the prolongation of life, long health

98Henry Rose, An Inaugural Dissertation on the Effects of the Passions upon the Body (Philadelphia: by William W. Woodward, 1794), p. 24. ESTC no. 006434984.
99See, for example, Hannah Newton, “Nature Concocts & Expels”: The Agents and Processes of Recovery from Disease in Early Modern England’, Social History of Medicine 28.3(2015), 465–86 (pp. 475–6).
100Fay Bound Alberti, ‘Emotions in the Early Modern Medical Tradition’ (p. 11).
is dependent on altogether avoiding envy. In the beginning of the eighteenth-century, works on health, of practical rather than theoretical medicine, can still be found that use the trope of envy as disease. In 1799, in Willich’s text, the dangerousness of this emotion to the body is dispelled before evidence from common observation. Not only do the envious not suffer harm, Willich says, but actually live long lives, undeterred by an emotion that once was connected to everything contrary to it: disease, enfeeblement of the body and, even, death.

Competing interests
No competing interests were disclosed.

Grant information
This work was supported by the Wellcome Trust [202652/Z/16/Z].

The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Acknowledgments
During the course of research for this particular project I was based at Loughborough University, UK. I especially wish to thank Drs Anne-Marie Beller, Carol Bolton, and Nicholas Freeman from the School of English for their continuing support and encouragement at various stages of this process. I also wish to thank Dr Rachel Adcock, Keele University, UK, for reading and commenting on the first draft of this article.
Open Peer Review

Current Peer Review Status:  

Version 1

Reviewer Report 23 January 2017

https://doi.org/10.21956/wellcomeopenres.11222.r19111

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Javier Moscoso
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This is a very interesting and informative paper about the physiological symptoms of envy, as they were described in, mainly, English medical treatises of the early modern period. The paper claims that the modern discourse on envy was always pathological, essentially due to the way in which envy was interpreted and understood within a humoral theory of disease. The paper sees a historical change in the physiological, but also an evaluative, understanding of envy, corresponding with the transition from humoralism to a mechanical conception of disease; a shift that the author associates with the coming about of a new “paradigm” in the 18th century. The paper focuses on the physiological effects that envy has on the envier, but also touches on some other wider issues, like the social consideration of envy as a dangerous social passion that connoted social strife and disorder.

To begin with, the paper does not include any kind of geographical restrictions in its methodological assumptions or in its conclusions. Though the bulk of the text is based on English sources or English translations, the author seems to discuss emotional shifts in an ideal territory that could perhaps be identified with Europe, but not necessarily so. This should be clarified, for two important reasons.

First of all, the tendency to identify English history with the whole of European, or Global History, does not seem to agree with current historiographical trends, including post-colonial or global history. Though these kinds of restrictions should always be clear, it is even more so when dealing with the history of the emotions, a field in which geographical or linguistic differences may reflect important cultural distinctions, as cultural anthropology but also cultural history has come to show very often. From a cultural point of view, the expression, but also the physiological experience of emotions may vary depending on the cultural forms in which those very emotions, or passions, are discussed, expressed, or repressed. Still more important for the general thesis of the paper, it might well be that the shift from a physiological experience of envy based on humoralism to a more enlightened model, does not simply apply to many other European or American cultural regions. In Spain and Italy, but also in France, discussion on passions was very
often based on humoral theory well up to the mid-19th century. A simple look at early 19th century French medical thesis on passions will suffice to make us gain a different picture regarding the continuity or discontinuity of humoral theory of passions beyond the Enlightenment.

Secondly, the discussion on envy touches on many other passions, including anger or sorrow. In some occasions, the paper seems to imply that “envy” is a kind of entity that could be divided into “its core elements” (p. 6). The connection between envy and melancholy, of which the papers offers plenty of examples, seems to rely on this kind of relation. On the one hand, the melancholic “was physiological inclined to be envious” (p. 7), whereas on the other, the envious was also described with melancholic features “All the diseases that converge on the black bile are part of the language of envy” (p. 9). This association between the physiology of passions and their moral or philosophical characterization remains the most intriguing and exciting part of the paper. The author might consider, however, to drop the mechanical understanding of history, based on “medical paradigms”, and consider instead, the analysis of the signs of envy inscribed in the body or verbalized by the use of the language. This might offer a much better understanding of the connection between envy and similar passions and conditions: melancholy, of course, but also different forms of ambition, including social and economic ambition. From this point of view, the discussion about the fate of envy during the European Enlightenment would take a quite different approach in terms of continuity or discontinuity. By focusing on the history of the physiological signs, independent of their social or conceptual framing, the paper could also introduce new considerations regarding the history of cancer, and some other incurable diseases, described very often in terms of a corrosion of the body caused by sadness, envy, ambition of different kinds, and so on.

In brief, this is a very interesting paper based on first class research. It could be indexed with two important modifications. First, the author should clarify its geographical and cultural scope. The general thesis that the paper defends does not simply correspond with evidences from other European sources and languages. Secondly, the historiographical model that informs the text, based on a mechanical substitution of medical paradigms could be informed by a discussion on the transformation of (physiological) signs into (medical or moral) symptoms. The history of physiological signs will also provide some interesting connections with the history of some other conditions, including the experience of cancer in early modern Europe.

Some other minor, considerations:
Note 25: please check Pedro Gil Sotres, La higiene de las emociones (instead of des emociones). In the same note, Luis García Ballester (and no Garcia)

**Competing Interests:** No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 25 Jan 2017

**Lina Minou**, Independent researcher , UK

Thank you very much for your review. You make some very fair and significant points and I
am grateful for your insights. I will work to address these points in the forthcoming revised version of this article.

**Competing Interests:** No competing interests were disclosed.

Reviewer Report 16 January 2017

https://doi.org/10.21956/wellcomeopenres.11222.r19112

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**Hannah Newton**

Department of History, University of Reading, Reading, UK

This is a richly textured analysis of the perceived effects of the passion of envy on human health in England between the sixteenth and eighteenth centuries. The author argues convincingly that this emotion was regarded – both by medics and spiritual writers - as unequivocally pernicious to the body, unlike some other related passions, such as anger. Associated with the dry, cold humour, ‘melancholy’, it hindered the vital process of digestion, and ultimately could kill by depriving the body of vital heat. The article makes a valuable contribution to the growing historiography on ‘embodied emotion’, and the links between mental and physical health in early modern culture. There are, however, a number of ways in which the article could be developed and strengthened, outlined below.

**Opening section**

I wondered if the opening could be made slightly more imaginative, perhaps with use of one of the colourful quotations in the section on the language of envy. The personification of envy, as a leathery-eyed, creaky-boned individual is very striking, and might make a nice way in. In the Introduction, it would also be helpful to be told how early modern people defined emotion (or ‘passion’ to use their terminology), together with envy (and how it differed – if it did – from jealousy); at the moment, envy is defined on p.2, but the definition has been paraphrased - it would be more powerful to have a contemporary quotation here, and for it to be moved up to the first page.

**Historiographical contribution and engagement**

The article displays a sound knowledge of the literature of emotion, both of what has been written specifically on envy, and on the broader scholarship of early modern health and the passions. Several additional important monographs, however, could be brought in where relevant, including:

- Sandra Cavallo and Tessa Storey, *Healthy Living in Late Renaissance Italy* (2013): contains a chapter on emotions and health.
- Erin Sullivan, *Beyond Melancholy: Sadness and Selfhood in Renaissance England* (Oxford, 2016); this wonderful book is very relevant to your interest in the humour melancholy, and its
effects on the body as well as the mind.

- Alanna Skuse, *Constructions of Cancer in Early Modern England: Ravenous Natures* (Basingstoke, 2015): discusses the imagery of cancer in a way that resonates nicely with your analysis of the metaphors of ‘worms’ and ‘cankers’ in descriptions of envy.

When thinking about the ‘gap’ in the literature, and how this article advances knowledge, it occurred to me that one thing it does well, is reveal the interrelationships between individual passions (envy and anger, envy and sadness, etc); as far as I know not a huge amount of work has been carried out on this subject, and it is one which I think you could highlight more explicitly.

**Methodology and structure**

In the Methods and Sources section, it is useful to hear how the sources have been selected, but I think a bit more needs to be said about the potential limitations of the sources and search methods. What are the pitfalls to using key word searches, and how have you got around them? For instance, were there other words, which have fallen out of use today, that may have been used in place of the word ‘envy’? How far do the chosen primary texts reflect the attitudes of most people in society? Is it ever possible to access the perceptions of poorer people, who left few records? I expect some popular ballads could be found on envy, which may provide some insights, albeit indirect ones.

In this section, it would also be useful to be given a little more information about the purposes, authors, and nature of the various primary sources, including the spiritual/philosophical texts which at the moment are not defined. Indeed, whenever a quotation or example is given, it would be worth giving a word or two of biographical information about the author (even if just their dates). Later in the article (p.8), when discussing Lemnius’ treatise, an interesting point is made about how medical texts tend to mention envy less frequently than religious/philosophical texts, owing to the fact that this emotion did not illustrate the point they wanted to make about the heart and spirits; the heterogeneity of texts in the period is also highlighted here. I felt that this observation needed to be moved to the Methods section, as it justifies why you’ve used philosophical/religious texts as well as medical ones.

My other comment about the methodology section is that at the moment it is interspersed with quite detailed explanations of medical theory, e.g. the non-naturals. It might be clearer for the reader if this information could be put into a separate introductory section, perhaps headed ‘Background on Emotion and Health’. The passage explaining the concepts of the spirits and natural heat (currently on p.5) could be inserted here too. The rest of the article’s structure seems effective.

**Argument and scope**

I think the argument that the effects of envy were physical as well as symbolic, is convincing, especially in relation to the loss of nutrition and natural heat. What I felt could be clarified slightly is whether the disease-specific metaphors (comparing envy to plague, leprosy, etc) were meant literally. Did envy actually make people more susceptible to contracting these diseases? If so, how did it do this? Perhaps such phrases were meant both metaphorically and literally. Could envy also cause forms of mental illness, like love sickness and mania?

Continuing the subject of metaphors, on p.1 it is stated that medical metaphors were also applied to the spiritual impact of envy – this passion was a disease of the soul, a deadly vice, etc; the
implication is that the whole idea of ‘spiritual health’ is a metaphor. From a secular viewpoint, I can see why this language seems metaphorical, but I don’t think that early modern people would have viewed it in this way. They believed that human beings consisted of two parts – the body and soul – and both were capable of health and disease. Thus, when the soul was said to be sick of sin (of which envy was one), they did not mean this metaphorically, but literally. I think this could be clarified in the text.

When discussing the ‘evil eye’ of envy, there might be scope to bring in the sense of sight. Why was this sense associated with envy? Do different passions connect with different senses?

Finally, a comment on the final section on change over time: I was convinced by the argument that envy was no longer regarded as pernicious to everyone in society (i.e. it was only dangerous to those who ‘indulged’ in it etc). However, the statements about the radical transformation in medical theory and practice perhaps over-state the extent of change, and could be softened. Various historians have shown that the basic belief in the humours (or ‘morbid matter’), and the need for rebalancing and purging, persisted into the eighteenth century, despite the ‘discoveries’ of the likes of Harvey and Newton. Although Boerhaave’s new emphasis on the role of motion and stagnation might seem new, it did in fact bear some resemblance to the older humoral idea that disease could be caused by the obstruction or putrefaction of the spirits/humours, and that health depended on a continual flowing. Many of the traditional humoral remedies aimed at unblocking obstructions, and the reason that emotions like cheerfulness were good for health was because they encouraged the lively movement of the spirits about the body (see Cavallo & Storey’s chapter).

In order to incorporate some of the above ideas within the word limit, I think there’s potential for a bit of pruning of words, especially in the introductory section.

Minor comments
○ Top of p.3: the sentence ‘potent image of body-related imagery’ – use of ‘image’ twice in one sentence. Could one of them be removed?
○ p.3 ‘concept of study relates to the concept of sin’- do you mean ‘concept under study’?
○ p.3. the word ‘surge’ is used twice in 2 sentence close together.
○ p.3 missing comma after Fay Bound Alberti.
○ p.3. ‘late seventeenth’ needs ‘century’ adding I think.
○ p.4: missing comma: ‘with the exception of a small number of manuscripts the texts used here are usually print sources drawing, directly or indirectly, from the principles of the Hippocratic-Galenic tradition’. The comma is needed after ‘manuscripts’.
○ p.5 first column: missing comma after ‘opposite effect’.
○ p.5. I think the tense needs to be changed: ‘By contrast, hectic fever has different connotations. It is a very specific pathological condition that is the result...’ – should this be ‘hectic fever had different connotations. It was a very specific pathological...’?
○ p.5. The sentence, ‘This tendency towards the ultimately harmful is usual to envy’ – could be rephrased for clarity- e.g. ‘This tendency to view envy as potentially fatal is usual’.
○ p.5. The quote from the Harley collection needs a little bit more contextualising I think.
○ p.6. The sentence, ‘sorrow is not adequate to describe the experience of envy’ – might need re-phrasing for clarity – e.g. ‘the experience of sorrow was not the same as that of envy’.
at the end of the section on language, the relationship between anger and envy is introduced. This could be moved to the start of the next section (on Anger and Envy).

- p.7: ‘Except for movement of spirits, anger is also connected to heat’. This should be rephrased, as the meaning isn't quite clear. Do you mean that besides the different movement of spirits, anger was similar to envy in terms of its association with heat?

- p.11. ‘the idea of humoural imbalance as [the] cause of disease’. (missing ‘the’).

- p.11, in the section on Helmontians: as Helmontians supposedly didn't believe in the humours or the qualities they represented, it might seem strange that they could associate envy with dryness. Maybe comment on this and offer a possible reason. Was it simply too ingrained in the culture of the time not to use?

**Competing Interests:** No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 25 Jan 2017

**Lina Minou,** Independent researcher, UK

Thank you very much for your review. I will work to address your concerns, alongside the points expressed in the second referee report, in a revised version of this work. Thank you also for taking the time to be detailed in your review and for suggesting relevant sources.

**Competing Interests:** No competing interests were disclosed.