

European Journal of Anatomy

Vol. 24 - Supplement 1

August, 2020



On
Disgust

Indexed in:

EMBASE/Excerpta Medica

IBECS / Índice Bibliográfico Español en Ciencias de la Salud

REVICIEN / Red de Revistas Científicas Españolas (www.revicien.net)

Official Journal
of the Spanish
Society of Anatomy



European Journal of Anatomy

August, 2020

Vol. 24, Supplement 1

On Disgust

Madrid, August 2020

Guest Editors: Dr. Javier Moscoso

Dr. Ivonne Donado Kerguelén

INDEX OF CONTENTS

On Disgust

Presentation

About Disgust: a brief introduction

Ivonne Donado Kerguelén I

Original articles

Salubrious disgust: excrement therapy in Eighteenth-century Medicine

Luis Montiel 07

Sick skin. The history of the dermatological representations in Olavide Museum

Amaya Maruri, David Aranda 15

Blood and pollution visualisations of menstrual flow in contemporary art

Pedro A. Cruz 23

Face transplantation and the anatomy of facelessness

Suzannah Biernoff 29

The faces of disgust. Death masks of famous and infamous

Gorka López 39

“A Weight of Carrion Flesh”: Measuring Disgust, Shakespearean Mimesis

Zenón Luis-Martínez 51

Illness and disgust. Compensation strategies of patients and healthcare professionals

Eva Sotomayor, Fernando Aguiar 63

Disgust in eating disorders, a basic emotion

Mónica Portillo, Marina Núñez, Mara Segura 69

Author Index 75

About Disgust: a brief introduction

Ivonne Donado Kerguelén

PhD Student Humanities, Universidad Carlos III de Madrid

It is unquestionable we all, as human beings, have felt 'disgust'. However, it is also interesting how people from different cultures, epochs, and contexts, have experienced this emotion as a reaction to phenomena so diverse, for example: worms, vomit, unwashed toilets, stools, menstrual blood, stenches, corporal malformations, personal practices or people that we may consider insulting or contemptuous (homosexuality, incest, corruption, racism, etc.). It is not less relevant how, in the everyday speech of different languages, we tend to use words or terms associated with the semantic field of disgust to express outrage or uneasiness. (What a repulsive conduct! What an awful day!) Some authors (Rozin et al., 2009; Rubio, 2008) explain that this feeling originated in mammals as a form of rejection to bitter flavors or scents and hazardous elements that could produce sickness or infections, instantly activating "a disgust output system" (Rozin et al., 2009). This was how this emotion acquired the form it has today in our complex social and cultural system. It evolved from being merely reactive conduct to a much more complex mechanism which we refer disgust to other circumstances much more related to our moral values than to our physiological needs.

Disgust also plays an important role in everyday life, in our mechanisms for making decisions, or in our moral agreements and legal or socio-political movements. Yet, it has not been exhaustively studied, nor has it received the attention that it deserves in comparison with some other emotions. This lack of attention may be understood, as Miller (1998) explains, because of sheer decorum. Because our civilization has turned our sensibility into a key element in social and political control it may seem a bit ineloquent speak about disgusting topics without feeling uncomfortable (p. 26). Rozin

(1999) states that this deficiency of investigations and scientific reports about disgust – especially in the decades after Darwin included this emotion in his list of the 32 basic emotions– depends on the fact that, as Miller puts it, maybe disgust is just disgusting (Ben-Zvi, 2013 p.17).

In this number of European Journal of Anatomy, we aim to examine in detail a topic that no doubt reminds us of our condition as mortal, visceral, and fetid human beings. We will move away from the morphological and descriptive nature of this journal. It is essential to specify that the most important contributions and reflections to the study of disgust came from very distant and different disciplines, such as evolutive biology, phenomenology, anthropology, cognitive psychology or even political philosophy. In this presentation, we will introduce a chronological organization of some of the most relevant authors and publications about disgust (some of them surely will be missing), and then we will introduce the different articles that we have selected for this publication.

DISGUST: SOME AUTHORS

In 1872, the naturalist Charles Darwin published *The Expression of the Emotions in Man and Animals*, a book where he argued that the expressive reactions triggered by any kind of emotions were innate and universal. He also claimed that those reactions were inherited by our ancestors and, as a result of evolution, they might have had some use or function (i.e showing the teeth as an expression of wrath), before they became a habit and integrated as part of our instinctive behaviors. In only a few pages, Darwin defines the emotion and the expression of disgust. He also exemplifies different situations that may trigger this reaction: "The term 'disgust,' in its simplest sense, means something offensive to the taste", he wrote (p. 257). He also adds that the changes in the facial countenance are simply natural results of the connection

Corresponding author: Ivonne Donado Kerguelén, PhD Student Humanities, Universidad Carlos III de Madrid
E-mail: 100349733@alumnos.uc3m.es, ivodoker@gmail.com

it has with eating or tasting (the action itself). "...by the mouth being widely opened as if to let an offensive morsel drop out; by spitting; by blowing out of the protruded lips; or by a sound as of clearing the throat" (p. 258). Nevertheless, since disgust is also unpleasant, it generally produces the need for taking distance from the repugnant object. The naturalist underlines how in some cases the consumption of some food, to which we are not used, could generate nausea and vomit. In some occasions, it is not food that triggers the emotion, but it is the relation of the edibles with a disassociated element. For example, we may very well find disgusting a stain of soup in the beard of a man without thinking that the soup itself is disgusting; in this case, the uncomfortableness is produced by its unusual presentation. For Darwin, the principal sense in the reaction of disgust is smell and touch. Since smell is closely related to taste, it is not weird that a repulsive stench could also provoke vomiting.

This close link that Darwin points out between taste and disgust, in particular the aversion for food, could originate, at least in some part, in the etymology of the English word. That comes from the French medieval term *desgoust* (modern French, *dégoût*), which has its origin in the word *desgouter* "have a distaste for", a compound term formed by the prefix *des-* (dis-) plus *gouter*, *goster* (to taste), from the Latin *gustus* (a tasting) (Online Etymology Dictionary, n.d.). From the same root, in French and in Spanish, the words *déguster* (*degustar*) and *dégouter* (*disgustar*)¹ are originated, thought these two words are antonyms they are related to food. Menninghaus (Silva, 2008) remarks that in the case of French the term *dégoût* is the contrary of *goût*, which means taste; and that in the translation of meanings it is fundamental the aesthetic categories of poetry considering that after all, are from these terms that new forms of "naming" have been standardized.

Fifty-seven years after Darwin's publication, in 1929, the Hungarian² philosopher Aurel Kolnai published a phenomenological work about hostile feelings: disgust, hatred, and arrogance (Kolnai, 2004; 2013). The etymology of the German word that titled the essay, *Der Ekel*, does not only relate to the connection to food but also to a feeling of loathing more generalized (Ben-Zvi, 2013) and this may have influenced Kolnai's decision to extend Darwin's statement. For Kolnai disgust, fear, angst,

and hatred are feelings of aversion as a defense mechanism. In fact, the deliberate reaction of disgust is directly projected to the object that provokes it and sticks to it outside of oneself, no matter the physiological effects it may cause (repulse, nausea). This author classifies physiological filth in putrefaction, corporeal secretions (by their sticky appearance), feces, filth or waste (by approximation to the atmosphere), animals especially bugs, rotten food, the human body –i.e. hugging undesired people–; fecundity –as in pathological disgust – and the sickness or physical abomination. There are three basic ideas in these elements that should be underlined as some of the most important contributions to this topic. For starters, virtually all of them are organic and remind us in some sort of way to "the vulnerability of the human body and its process of deterioration up to death" (Ben-Zvi, 2013). For Kolnai all the phenomena that are associated with putrefaction or that relate to the decomposition of a body and its transition from living being to death are fundamental for disgust (Kolnai, 2013).

Furthermore, the next idea that moves him apart from Darwin is that in his own list of objects that may produce disgust, only one refers to food. He remarks the struggle that usually may exist when someone tries to explain an aversion to some foods. Maybe, because the majority of these could possibly be disgusting: by their sticky appearance, their decomposed state, their presentation, or even by our scarce habit or custom of consuming it because of the ease that this may have to evoke extremely different reminiscences. This idea certainly dismisses taste as the most important sense in the experience of disgust. His third significant idea is that the most important generators of disgust are the smell, touch, and sight. In fact, for this author "the true place of origin of disgust is the sense of smell" (Kolnai, 2004 p.50), this may be the reason why he also includes taste, the palate –if ignoring the four basic tastes: bitter, sweet, etc. –, not only for its physiology but also for to what it relates. From this point of view, there is not a disgusting flavor that not be associated with a stench or unpleasant smell. However, the most important contribution done by Kolnai (2004, 2013) is the extended definition of disgust and his addition of the moral disgust. "By 'moral' here we understand not 'ethical' in a strict and narrow sense, but rather: mental or spiritual [*geistig*], albeit more or less with

¹Though in the Spanish language the word *disgustar* is more commonly used to indicate annoyance or indignation and not necessarily means the emotion of disgust. In this language, the term "asco" is a word etymologically inverse, since it comes from *asqueroso* from the Latin *escharosus* (which derives from *eschara*, scab).

²This essay was only translated to English in 2004, this is why some of the authors do not include it in their investigations. Although there was a translation to Spanish and the authorship is not clear it was published twice by the journal *Revista Occidente* (1929 and 1950), directed back then by Ortega y Gasset.

reference to ethical matters, in contrast to physical, as when one speaks of moral factors or of the morally relevant aspect of an issue,” (Kolnai, 2004 p.62). There are five distinguishable kinds of moral disgust: satiety (as related to excess); excessive vitality or vitality whose unfurling is misplaced. “Brutality, physical energy blustering in all directions, a concentrated odor of life, may occasionally be disgusting” (Kolnai, 2004 p.65), hence, chaotic forms of sexuality are included. It is also included lying, corruption and lack of character.

With his contribution, Kolnai³ even anticipated the anthropologist Mary Douglas when describing disgust as something inappropriate or out of place. In her 1996 book *Purity and Danger*, and without explicitly mentioning the emotion of disgust, Douglas (Douglas, 1973; Bericat, 2005) established a theory of the impure, polluted and contaminated states that filth does not exist per se, but it is just matter in the wrong place. Dirt is essentially disorder or offense of order, its removal is not a negative action but a positive effort for making a more organized environment (Douglas, 1973). Despite the needs of societies for structure and categorization –many of them are hierarchizing–, not all reality fits into these symbolic systems, so dirt represents ‘ambiguity’ or ‘anomaly’ (Bericat, 2005). Hence, Douglas states the reasons why in many different cultures the consumption of flightless birds or even birds that do not look strictly as such is refused or the repulsion for viscous or sticky materials. This ambivalence could also be extrapolated, in some sort of way to holiness. Even though sanctity and impurity are in poles apart, they are also restricted to avoid the jeopardy in which the profane could put in the divinity. The next author resumes a similar idea.

Paul Rozin, a psychologist at the University of Pennsylvania, along with his team is probably the most prolific author in the topic of disgust since the 80s. In his studies, he uses a biological and cultural approach. From the evolutionist analysis drawn up by Darwin, Rozin and Fallon defined a ‘core disgust’, which is a primal emotion that they interpreted as an ‘aversive perspective of the oral incorporation of a foul object” (Rozin and Fallon, 1987), as a defense mechanism of the body. Rozin and his colleagues (2000) support the cognitive component as a fundamental element for the feeling of disgust, related to the idea of contamination, impurity, and contagion; in other words, there are beliefs or judgments related to the disgusting object. In their studies, these authors took up Frazer’s ideas of resemblance and contact or contagion and analyzed how in different ways disgust could pass on from one object to another by mechanisms named ‘law of contagion’ and ‘law of simi-

larity’. These two laws address that once an object has been in contact with something disgusting; it is contaminated or infected (i.e. if any food has been near to a nasty or unpleasant substance or if it has been served in an inappropriate vessel such as in a toilet, the food will be rejected). In addition, if two elements are similar, so they are similar in depth (rejecting food that looks undesirable, i.e. feces) (Salles, 2010).

According to Rozin et al. (2009), from the principle of pre-adaptation, a system that evolves for a purpose and then is used for another one, disgust has been transformed and may be caused by objects that are not necessarily related to the organic or animal matter. Abstractly, “a class of moral offenses involving violations of purity and sacredness.” (p.1180). From anthropology, Shweder et al. (Rozin et al., 2009; Salles, 2010) have noted that there are at least three moral codes all around the globe: the code of autonomy, of a more liberal bias that underlines the regulations which prevent harm to those around, the most predominant in the western world. The code of community, respect for the collective values and the authority; and The code of divinity, which is associated with the divine, purity, holiness, tradition, and pollution. For Rozin and his colleagues (Rozin, 1999; Rozin et al., 2009; Rozin and Haidt, 1999) disgust is a violation of the latter. For example, the consumption of beef by Indian people, incest, treason, etc. Likewise, they have observed in many cultures where a vertical social organization is stronger, with gods above and demons and animals below, moral disgust is acknowledged when a person is considered to have been moved down to the inferior part of such scaled organization. Even though it is true that what Shweder stated as ‘code of autonomy’ prevails in west slightly losing relation with the code of divinity. The fact is that “disgust and divinity concerns still play a powerful role in many political controversies, from abortion and euthanasia to gay marriage and flag burning” (Rozin and Haidt, 1999).

One of the most prominent books that deal with this emotion is *The Anatomy of Disgust* (1997), written by the historian and law professor William Ian Miller. This author affirms that disgust as an emotion is paradoxical because it repels but also attracts, a duality that may have its origins in the symbolic confluence between what is biological and what is cultural. For Miller, this emotion is capable of structuring social, moral and political organization as long as it is related to the idea of danger: contamination and infection. Although disgust is associated with other emotions (contempt, shame, hatred, fear, wrath, etc.), it is its pejorative quality that constitutes the formulation and viola-

³Unfairly Kolnai is greatly unknown, at least by the English-speaking literature, perhaps by its late translation or the invisibility and little esteem that according to Menninghaus, the United States academics had on the German studies (7). The truth is that none of the authors that are cited in this text include Kolnai in their bibliographical references.

tion of some moral codes. This can be noticed, according to this author, in the linguistic expressions related to disgust that we normally use to make value judgments. Because of this emotion visceral nature, it is also considered to have some virtues such as seriousness, commitment, undebatable, presence, and realism. (Miller, 1998). After all, it seems that we feel more comfortable and secure recognizing what is wrong and unpleasant than to what is good and appealing. Maybe, caused by what disgust can make seem as correct: the expressions of disgust allow our bodies to shield behind these words, this safely guard us so that these words can be more than just mere expressions. Miller describes this as a sensorial experience that is built on metaphors, untasteful images, stench, and goosebumps: You are repulsive! Child abuse disgusts me!

In 400 pages, Miller elaborates a bunch of interesting theories, some of them debatable; however, to give this reference an end, we introduce three of his ideas that may extend the discussion about this topic: the first one is that the relation between disgust and what is disgusting is not necessarily congruent. On the contrary, disgusting is a more large category that not only includes what causes us disgust but also things that should cause disgust (p. 48). Miller's second idea is the consideration of love as the opposite emotion since it is in filial, romantic and sexual loving relationships that we overcome disgust to establish emotional links and to acknowledge roles (like parents cleaning up feces and vomits of their children; people tolerating the bad breath of their partners, etc.) (pp 191-203). Finally, since disgust is an anti-democratic power the democratic principles should transform it in 'despise', a feeling more horizontal as long as the ones below also feel it for the ones above. (Miller, 1998; Silva, 2008).

To conclude with this section, which the only purpose was to introduce authors and publications more relevant about disgust, it is precise to refer to Martha C. Nussbaum. A portion of the bibliographical production (Nussbaum, 2006, 2008, 2010) of this political philosopher analyses some particular characteristics that could make of disgust a morally questionable emotion, therefore, it should not be able to be used as a legit basis for legal judgment. The pathology of repugnance has an as fundamental element the bifurcation between 'pure' and 'impure' that produces a flawless 'us' as in opposition to a more contaminated, dirty, and bad 'them'. It is important to mention that in the latter, many historical subordinate groups such as some formed by women, though not all of them, some ethnic minorities, homosexuals in some historical moments or the lowest Indian castes, etc. (Nussbaum, 2006). Politically controlled, disgust denies the reality of the bodies of the controlling group and projects their bodily vulnerability in the ones of the subordinated group, and then uses

such projection to intensify the subordination policy (Nussbaum 2014) with dreadful consequences in many cases (persecution, murder, imprisonment, etc.). Nussbaum wants to resume and enhance Rozin's idea about disgust as an expression of one's own animality. She remarks that human beings do admire some certain animal characteristics (force, speed); but resent the vulnerability we share, the disposition to decompose and transform into waste, and also the need for a group of humans to gather around and join to use as a division between what is really human and vilely animal (Salles, 2010; Nussbaum, 2006; Gil, 2014; Figari, 2009).

SOME ISSUES ABOUT DISGUST AND THE APPRECIATION OF OTHER ARTICLES

The essays of this monograph take up several of the authors presented in this brief review, as well as some of their most interesting approaches. Some deepen more or less theoretically into the subject of disgust, but all undoubtedly present examples of their cultural forms throughout history. Perhaps, all of them share, broadly speaking, how disgust is incarnated in our bodies, in our faces, in their deformities, in their excretions, and in the discourses.

The first article is from the professor of History of Science in Universidad Complutense de Madrid, Luis Montiel, and its title: Salubrious Disgust: Excrement Therapy in Eighteenth-century Medicine. In a very enjoyable form, Montiel introduces us to an unprecedented proposal of the physician Christian Franz Paullini (1643-1712), who suggested the use of excrements and urine as a medicine previously processed. A disgusting form of treatment that Paullini was probably pretty aware of. Through the revision of his biography, presenting other cases of cultures with similar treatments or rituals, describing of the publication made by Paullini, Montiel elaborates an interpretation on his treatise and on the concern of why a modern, erudite, and recognized doctor, would develop a similar proposal. Montiel agrees with the studies that point out feces and urine as inciting objects of disgust. For Nussbaum (Nussbaum, 2008), the excrement produced by the body itself is not seen as unclean when it still remains inside. However, it becomes repulsive and sinister once it leaves it, strange and contaminated. Defecation becomes an act of purification by which the individual cleanses his or her body (Douglas, 1973), but what it produces is alien and contaminated.

Some of the most repulsive secretions that are not linked to body holes are those produced by skin illnesses. Amaya Maruri and David Aranda present the text Sick skin. The history of the dermatological representations: Museo Olavide. In this article, they go through some aspects, from the history of dermatology and the conceptual and

medical change of the skin, Dr. Olavide role in 19th century Spanish dermatology, his investigations and contributions, to finally introduce a specific case that is closely related to the museum. In the same topic of bodily secretions, Pedro Cruz Sánchez (University of Murcia) reflects above menstrual blood, which according to Miller (1998) is universally considered one of the most disgusting and concerns to a historically subordinated group of people: the women (Douglas, 1973; Figari, 2009). In his article, *Blood and Pollution. Visualizations of Menstrual Flow in Contemporary Art*, Cruz remarks about how menstrual blood "is the only kind that neo-capitalist patriarchal decorum will not tolerate." At such a point that many artistic proposals related to menstrual blood have been censored in social media, or simply menstrual period and blood have never been able to be presented explicitly in the media or in the commercial advertisement of products for that specific purpose. Among the countless reasons for this, one that strikes the most is the idea of the virgin, the immaculate woman whose presence is restricted by the principle of purity. The main content of the article presents plastic female artists, whose proposals have surrounded the visualization of menstrual blood.

The next two articles do not only coincide in the object that may provoke disgust, the facial deformation, also they analyze how these are represented. The first one is *Face Transplantation and the Anatomy of Facelessness* by Suzannah Biernoff, an article in which she develops and reflects about the question: Why does face transplant arouse so much disgust but also fascination? For this, she goes back to the first woman face transplant story and all the controversy about this event. Then, she deepens in the relation between disgust and stigma, the imaginary malformation or the dehumanization of people with face transplants in the first movie that addressed this topic, Georges Franju's *Les Yeux sans Visage* (*Eyes Without a Face*, 1959). As for Gorka López Munaim of the Centre of Image Studies Sans Soleil, in his article *The faces of disgust. Death masks of famous and infamous*, he links disgust, death and faces, through the masks presented in the exhibition with the same name of this article of the Fringe Festival, which was composed by death masks of people with malformations. For López seeing death marks does not only provoke disgust because of the condition of the person that reminds us of our mortal nature but also produces moral disgust for his or her immoral conduct and behaviors.

"A Weight of Carrion Flesh": Measuring Disgust, Shakespearean Mimesis is the next article and it comes from the literary analysis. Zenón Luis-Martínez (University of Huelva) proposes to review and analyze: Thomas Wright's *The Passions of*

the Minde in General and some of Shakespeare's plays (*Hamlet*, *King Lear*, *The Winter's Tale*, *Timon of Athens* and *The Merchant of Venice*). It aims to explore the capacity of metaphors and tropes to test affective intensity, as measuring the passions were considered a necessary condition for moral and social well-being. This study points two notions of mimesis for an understanding of the early modern phenomenology of the emotions: the aesthetic element inherent in poetic mimesis and the envious emulation of others' ways of feeling. This analysis adds to a recent trend that seeks to historicize "disgust" before the term came of use or as it was beginning to appear.

Finally, the last two articles present disgust directed to two vital processes: illness and eating. The first one, written by researchers Eva Sotomayor and Fernando Aguiar, that is titled *Illness and Disgust: Compensation strategies of patients and healthcare professionals*. The main idea is to analyze disgust in healthcare settings. These authors argue that in this context, disgust occurs frequently. On the part of the patients towards their own wounds, surgical procedures, medical examinations, and treatments, even to the point of embarrassment. Health personnel also feel disgust, even if it seems contradictory to their professional practice. Sotomayor and Aguiar applied a survey to a group of professionals, in order to identify the types of disgust (in which the lack of hygiene of the patients stands out), as well as compensatory strategies to face them and avoid feeling uncomfortable. In any case, what this pilot study seems to indicate is the importance of facing disgust to adequately care for patients who, in turn, must sometimes overcome their own disgust to heal properly.

From a clinical psychological perspective, Mónica Portillo, Martina Núñez y Mara Segura, reflect on how certain eating disorders (bulimia nervosa, anorexia nervosa, and binge eating disorder) are originated. Besides, the perception of disgust that some people have about different types of food (or its compounds, i.e. calories), or about themselves or their bodies. To this end, they show various fragments of interviews done to people that have these eating disorders. Finally, they propose some techniques that may help them with their treatment. According to the authors, these techniques may result in a reduction of the negative appreciation that the patients have about themselves, and so, a decrease in the feeling of disgust. Their article is titled *Disgust in Eating Disorders, a Basic Emotion*.

We believe that this selection contributes to a diversification of the ways of thinking, approaching, questioning, and analyzing some of the many objects that could provoke our disgust. Although some of them may be uncomfortable, indecorous, unseemly, or just disgusting, they are necessary to comprehend the part of our cultural history, but

above all for the attempt to move forward, especially from those that sustain and uphold certain prejudices.

REFERENCES

- BEN-ZVI L (2013) Debates sobre el asco. *Beckettiana*, 12: 17-24. Available at: <http://revistascientificas.filo.uba.ar/index.php/Beckettiana/article/view/155> Accessed on 31st July 2018.
- BERICAT E (2005) La cultura del horror en las sociedades avanzadas. *Revista española de investigaciones sociológicas*, pp 53-90. Available at: <https://dialnet.unirioja.es/servlet/articulo?codigo=1302355> Accessed on 28th September 2018.
- DARWIN C (1872) The expression of the emotions in man and animals. London: John Murray. Available at: <http://darwin-online.org.uk/content/frameset?itemID=F1142&viewtype=text&pageseq=1> Accessed on 26th September 2018.
- DOUGLAS M (1973) Pureza y peligro. Siglo Veintiuno Editores, Madrid.
- FIGARI CE (2009) Las emociones de lo abyecto: repugnancia e indignación. In: Figar C, Scribano A (eds). *Cuerpo(s), Subjetividad(es) y Conflicto(s). Hacia una sociología de los cuerpos y las emociones desde Latinoamérica*. CICCUS, Buenos Aires.
- GIL M (2014) Las teorías de las emociones de Martha Nussbaum: el papel de las emociones en la vida pública. Doctoral Thesis, Universitat de Valencia.
- KOLNAI A (2004) On disgust. In: Smith B, Korsmeyer C (eds). Open Court Publishing, Illinois.
- KOLNAI A (2013) Asco, soberbia, odio. *Fenomenología de los sentimientos hostiles*. Ediciones Encuentro, Madrid.
- LEÓN E (2013) El Asco. Una emoción entre Naturaleza y cultura. *Cuestiones de Filosofía*, 15: 151-170. Available at: <https://doi.org/10.19053/01235095.2108> Accessed on 21st September 2018.
- MILLER WI (1998) *Anatomía del asco*. Taurus, Madrid.
- NUSSBAUM MC (2006) *El Ocultamiento de lo humano*. Katz, Buenos Aires.
- NUSSBAUM MC (2008) *Paisajes del pensamiento: La inteligencia de las emociones*. Paidós, Barcelona.
- NUSSBAUM MC (2010) *From disgust to humanity: sexual orientation and constitutional law*. Oxford University Press, Oxford.
- NUSSBAUM MC (2014) *Emociones políticas. ¿Por qué el amor es importante para la justicia?* Paidós, Barcelona.
- ONLINE ETYMOLOGY DICTIONARY (n.d.) Disgust. Available at: <https://www.etymonline.com/word/disgust> Accessed on 28th September 2018.
- ROZIN P (1999) The process of moralization. *Psychological Sci*, 10(3): 218-221. Available at: <http://www.jstor.org/stable/40063414> Accessed on 21st September 2018.
- ROZIN P, FALLON AE (1987) A perspective on disgust. *Psychological Rev*, 94: 23-41. Available at: 10.1037//0033-295X.94.1.23.
- ROZIN P, HAIDT J (2013) The domains of disgust and their origins: contrasting biological and cultural evolutionary accounts. *Trends in Cognitive Sciences*, 17(8): 367-368. Available at: <https://doi.org/10.1016/j.tics.2013.06.001> Accessed on 13th September 2018.
- ROZIN P, HAIDT J, MCCAULEY CR (2000) Disgust. In: Lewis M, Haviland-Jones JM (eds). *Handbook of Emotions*. Guilford Press, New York, pp 637-653.
- ROZIN P, HAIDT J, FINCHER K (2009) From Oral to Moral. *Science*, 323(27): 1179-1188. Available at: 10.1126/science. Accessed on 13th September 2018.
- RUBIO M (2008) El asco en defensa propia. ¿Cómo ves?, 120: 16-19. Available at: <http://www.comoves.unam.mx/numeros/indice/120> Accessed on 13th September 2018.
- SALLES ALF (2010) Sobre el asco y la moralidad. *Diánoia* [Online], 55 (64): 27-45. Available at: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-24502010000100002 Accessed on 21st September 2018.
- SILVA R (2008) *El Factor Asco: Basurización simbólica y discursos autoritarios en el Perú contemporáneo*. Lima: Red para el Desarrollo de las Ciencias Sociales en el Perú. Available at: <http://hdl.handle.net/11354/990> Accessed on 21st September 2018.

Salubrious disgust: excrement therapy in Eighteenth-century Medicine

Luis Montiel

Dpto. de Medicina Preventiva, Salud Pública e Historia de la Ciencia, Facultad de Medicina, Universidad Complutense de Madrid, Madrid, Spain

SUMMARY

The use of repulsive substances, often consisting of human or animal excrement, to treat numerous diseases was quite common in primitive and archaic cultures. Historical research has given this phenomenon the name of *Dreck Apotheke* or “excremental pharmacopoeia,” and it is precisely this term that is the title of a medical text published in 1699 by a German physician, Christian Franz Paullini: *Heylsame Dreck- Apotheke* (Salubrious excremental pharmacopoeia). This paper aims to explain, to the extent possible, the inopportune proposal of treating human diseases using feces and urine in an age when most doctors were against said doctrine.

Key words: Therapeutics – Baroque – Ch. F. Paullini – Excrement – Iatrochemistry – C.G. Jung

AN EARLY APPROACH TO THE STUDY OF DISGUST

The oldest study I could find on the psychology of disgust is a paper presented by its author as a first approach that, while not methodologically unassailable, presents sound arguments and, furthermore, aims to propose a methodology to study said emotion. As can be expected from this description, it does not include a finished definition, but does provide a provisionally suitable starting

point: “on asking people to name the first disgusting objects which occurs them, one obtains almost invariably some references to excreta, especially to feces. The list of such objects most frequently mentioned includes feces, urine, secretions of the various mucous membranes, sweat, and similar wastes of the human and animal body” (Angyal, 1941 pp. 393-394). If this is true (and I do not think there is any reason to question it), few things could be more surprising than a physician trained at a European university dedicating an entire book to treating diseases using excrement and urine, even taking into account that this man is from the Baroque period. This proposal was surprising, and even cause for scandal for many of his contemporaries, as can be seen in the first lines of the edition that we will be examining, the second edition of his work. However, as with all cultural occurrences, it is not entirely unexplainable. Therefore, this article aims to explain the controversial proposal of Doctor Christian Franz Paullini (1643-1712). To do so, we will begin by highlighting some of the ideas from the aforementioned study on disgust which are of particular interest in the case at hand.

Paullini proposes using excrement and urine as medications, whether administered orally, or applied as a salve on different parts of the body. It is precisely contact, or the mere thought of possible contact with these substances that awakens the greatest sense of disgust in people: “It is (...) more disgusting to touch them with one’s bare skin, and much more so to take them into the

Corresponding author: Dr. Luis Montiel. Dpto. de Medicina Preventiva, Salud Pública e Historia de la Ciencia, Facultad de Medicina, Universidad Complutense de Madrid, Ciudad Universitaria, 28040 Madrid, Spain.
E-mail: montiel@med.ucm.es

mouth, not to mention ingesting them" (Angyal, 1941 p. 394).

This would be reason enough to be perplexed by the strange therapeutic proposal by the German doctor, but Angyal's work allows us to delve deeper into how strange it really is. It is assumed that a medication must correct some type of imbalance caused inside the body. From the beginning of technical Western medicine, this imbalance has been associated with the archaic notion of impurity, devoid, in this case – at least in terms of intention – of all moral connotations. In the medicine to which I refer, Hippocratic medicine, an excess of one of the humors whose suitable balance maintains health is what causes a disease when it becomes *pyon*, *pus*: a repugnant substance. And healing, when it occurs, is also understood in a naturalist way: *katharsis*, purification or purging. It seems to require a true intellectual effort to accept that excrement could have such an effect. On the contrary, what is spontaneously experienced upon such intimate contact as that proposed by Paullini with "the wastes of the body," or even thinking about that contact, is the feeling of an enormous "danger of being soiled," given the substances' properties of "softness, stickiness, sliminess [which] particularly accentuate [their] repulsiveness" (Angyal, 1941 p. 395). Undoubtedly, Paullini, as a human being before a physician, is aware of this difficulty, of the irrepressible force of disgust that will surely overcome any consideration such as those that he presents in his treatise. However, as can be seen in the chapters dedicated to treating specific diseases, he has a solution to this problem: his treatments do not involve eating human or animal feces, ear wax, or urine, substances that constitute the basis of his foul pharmacopoeia, or at least not as they are found in nature: as with many other therapeutic principles they must be processed. And while he does not give the impression that he is familiar with the writings of our author, Angyal seems to be talking about this when he says "if any disgusting material were thoroughly dried and compressed into a solid block which would be just as compact as a block of wood or metal and from which no visible particles could attach themselves to the skin, one would have considerably less resistance to touch it" (Angyal, 1941 p. 395).

That is to say: you can make a person ingest fecal matter or disgusting substances in general as long as they do not seem disgusting, as long as they have lost those qualities that we mentioned in the above paragraph, which act as so many other signals in nature to alert us of the error of introducing substances into the human body that the same body or another similar one has discarded as useless or perhaps dangerous. However, this idea that

bodily senses and intelligence can be "tricked" still leaves the core problem intact: why should excrement be used to treat diseases, and even be given priority over other less disgusting remedies?

To try to answer this question, we begin by asking another: is *Dreck Apotheke* an invention of Christian Franz Paullini, *proles sine matre creata*? In some ways. He himself, in the pages we will analyze, refers us to the opinions of some wise men of the past, but the history of this treatment is much older. I cannot recreate this history in detail in a text such as this, but I can outline its fundamental aspects. This treatment was already present in medicine that we denominate primitive and archaic (Rothschuh, 1978; Stiehler-Alegría, 2007), and it would continue in Western folk medicine as well, specifically in German-speaking territories (Grabner, 1968). It was based on the animist conception common in those cultures and its persistence in the popular classes of the latter. In this way of conceiving reality, those diseases attributed to the presence of a living being with its own will – a demon, the spirit of a deceased person – could be cured by introducing a repugnant substance into the body to force the undesired guest to leave. The article I have been quoting mentions precisely this explanation: "The meaning of the disgusting object include some animistic notions. It is (...) regarded (...) as something related to life, as something "almost living" which has the tendency or is endowed with the capacity to sneak up on, and to penetrate, the body in some unnatural way. This notion is not clearly conscious (...) The use of excrements in the primitive pharmacopoeia ("*Dreck-apotheke*") and for various magical purposes is quite frequent" (Angyal, 1941 p. 397, 401). The aforementioned author supports this explanation with the testimony of contemporary French anthropologists: "Among (...) a savage jungle-tribe of French Indo-China (...) shamans who fear the temptation of becoming witches (...) will drink their own urine to disgust the supernatural being who gave them their unwanted shamanistic powers, and cause him therefore to take back that power," concluding: "The crucial point in this last example is that excrements are considered as very effective means to arouse disgust" (Angyal, 1941 p. 401). If this is true, how is it possible that a modern physician would try to turn excrement into a healing resource?

THE AUTHOR

Let us begin by getting to know the author of this proposal. Christian Franz Paullini was born in Eisenach on February 25, 1643. His parents died when he was young but he had the fortune to be assisted economically by some benefactors, so he

¹The following is a summary of the biographical study by K.F.H. Marx, cited in the bibliography (Marx, 1872).

was able to attend school, demonstrating his ability. After living in Mühlhausen and Gotha he began to study theology in Coburg which, it seems, was the wish of his deceased mother. He also studied medicine, which he privately hoped to dedicate his life to. With the aim of improving his education in this field, he then traveled to Copenhagen, where he was able to attend the lectures of Olaus Worm and Erasmus Bartholin, son of the famous anatomist.

His pilgrimage did not end there; travel would be one of his distinguishing characteristics. From Copenhagen he moved on to Hamburg and from there to Wittenberg, where he obtained the degree of Magister, and then to the mecca of medicine and natural sciences in the Baroque period: Leiden.

According to his autobiographical writings, his time at this university was decisive. He speaks with admiration of one of his professors, Franciscus de le Boë (Sylvius), as well as of his experiences in the classrooms and hospitals. However his desire to learn would take him even further: to England, where he survived thanks to his work as tutor to two young German noblemen, and where he achieved his goal of meeting Robert Boyle in London and Thomas Willis in Oxford. Finally, he returned to Leiden to complete his doctorate.

Given this information, we must believe that Paullini had a strong will and the audacity needed to embark on all these adventures; and adventures they were, at least some: according to his own testimony, he arrived in England with one mark in his pocket and without knowing what would happen to him when he landed. However, it is most important to note that this will and audacity had a purpose: to be educated in the best medicine that his era could offer; and in the case of his meeting with Boyle, also in the best scientific research on nature. Years later he would maintain a professional relationship with the Jesuit polymath Athanasius Kircher, thus demonstrating that his curiosity and desire to learn had not diminished with age and professional prestige.

It seems that his prestige was already quite high at the time he obtained his doctorate, which seems to be confirmed by an offer of employment from the Duke of Tuscany to be a professor at the University of Pisa. It appears that it was likely Nicolaus Stenon and the aforementioned Athanasius Kircher who suggested him to the Duke. Paullini rejected the offer because of, or perhaps under the pretext of, an illness. He decided to stay in Hamburg and practice his profession until he received another offer, which this time seemed to line up with his desires, as the personal physician and historiographer to the Bishop of Münster.

This latter fact demonstrates another very distinct trait of Paullini's personality: his interest in a wide variety of subjects. He was not just a physician, and did not only interest himself in natural

sciences: history, poetry, classical languages, and anthropology were also topics of interest to him, which is expressed in several parts of his work. This variety of interests, and perhaps of masteries, led to his appointment as a member of the Academy of Sciences Leopoldina, where he published a large number of papers.

In 1689 he returned to the city of his birth where he continued to practice as a physician. In 1706 he suffered a stroke that paralyzed the right side of his body, although that did not keep him from working up until shortly before his death on June 10, 1712. As a motto for his life, Paullini chose *candore et labore* (honesty and hard work). Given the above, one must agree that he was exemplary in the latter of these values, and nothing – except the work we are going to analyze, in some sense – can be found in his biography that would contradict the first. Before analyzing his *Dreck Apotheke* we will take a brief look at how our author viewed medicine, its teaching, and its practice.

Paullini held the practice of medicine in very high esteem, and therefore he was truly upset by something he frequently pointed out: that often people who practiced medicine did so without adequate theoretical training and, above all, without an adequate knowledge of anatomy. His high esteem for anatomy is interesting with regard to what I will later say in my proposal to interpret his coprophilic work. He claimed to value simple medications more than extremely complex treatments. Within this simplicity, in addition to his excremental pharmacopoeia, he proposed therapeutic flagellation. This was based, on the one hand, on the observation of the practices of some cultures which used flagellation with green birch branches, with the leaves still on them (he most likely refers to the popular Scandinavian practice), and, on the other, on a curious argument based purely on language and its symbolic nature. This information provides a clue that I will follow later: "Attila was called the Scourge of God, *flagellum Dei*; all diseases are similar scourges and, surprisingly, one scourge cures another" (Marx, 34). Here we are entering moral territory. Disease, typically the plague, has been conceived since ancient times as a punishment, or the warning of a benevolent God to save humanity from an evil one thousand times worse: sin. But this territory is beyond the material; or, rather, the material is only the means for something more subtle to be expressed. That is why language must be limited to expressing thought through metaphors. In the essential world, words do not describe things, they are not fixed to them; they only indirectly refer to their hidden reality.

Along with this clue, we find another of equal interest, as it brings us closer to the topic of this study: salubrious excrement. Although he does not apply it specifically to this topic, the aforementioned author gives us a sort of key to approach Paullini's *Dreck Apotheke*: in some territories the

plant called Asafoetida is known as *stercus diaboli*, the devil's excrement, while in others it is called *cibus deorum*, food of the gods (Marx, 19). The first of these names undoubtedly answers to a spontaneous reaction of repulsion due to the odor which justifies the description in its botanical name (*foetida*), a reaction which is none other than that which corresponds to the emotion that concerns us here: disgust. However this is the reaction of the common man, as it is spontaneous, primitive, emotional. To come to believe that something that resembles the devil's excrement could be a divine food is precisely a complex intellectual operation and undoubtedly based on a theoretical idea that could provide it with a foundation. One would need to have a wisdom – *Weisheit* in Paullini's native German – that would allow the mind of its holder, *der Weise*, to go beyond appearances, and even in the opposite direction. We know what this wisdom is: it is that which sees the philosopher's stone, *lapis philosophorum* (in German *Stein der Weisen*) in the stone scorned by builders, *lapis exilis*.

With this, I do not mean to say that Paullini's *Heylsamen Dreck Apotheke* is a treatise of Hermetic medicine, as it is not, but I do wish to say that the author's mentality operates, I believe unconsciously, within the same symbolic universe of his alchemist predecessors and contemporaries, which I will try to demonstrate through an analysis of his arguments.

THE WORK

I worked with a digital version of the second edition, from 1713, which is available on Google Books. I will focus on the prologue addressed to "the upright German reader." This is an extensive text loaded with references to classical authors, not always of the first order, as well as anecdotes that could be grouped under the classic heading of odd, which have no other purpose than to provide evidence, at the best dubious, in defense of excremental therapy. In fact, in just the first five or six pages, we can find theoretical arguments aimed at supporting the rationality of the practical application of excrements (*Koth*) and urine (*Urin*) in treating a wide variety of diseases. Paullini dedicates the first lines to those who criticized the first edition of his work. Therefore, we must understand his defense of these therapeutic resources as an attempt to convince those who, in his opinion, are wrong. His arguments appeal to religious tradition, although through a way of reasoning that is based on literalizing something that no Christian would disagree with on a metaphorical level: that all of

nature, and therefore human beings, are made of the most vile material by express design of their creator. Clay, mud, and, in the words of some especially radical prophets, as well as some Church priests, excrement, constitute the *prima materia* of human beings. Thus, he is also able to send an implicit message to his detractors: "humble yourself, you arrogant man," he seems to say, "it was the Lord who in this way wished to show us just how low we are in his eyes." However, at the same time he performs an inversion of values that was very rooted in a philosophical-natural discourse that was well known in the period. This inversion consists of elevating the inferior: "for all those who exalt themselves will be humbled," proclaims the Church, "and those who humble themselves will be exalted." Furthermore, as we have seen, alchemy, with its language tinged with religiosity, says that it will be the *lapis exilis*, the stone scorned by builders, which will become the cornerstone of the building of the Kingdom of God and, closer to Earth, the *lapis philosophorum*, *Stein der Weisen*, the stone of the wise: our philosopher's stone. Later I will return to this topic, where we owe much to the interpretation of Carl Gustav Jung.

Throughout these first few pages with a largely religious focus, the author uses a set of concepts that have an analogous meaning only in the framework of this specific perspective (Paullini *A recto and verso*, A2 r.): excrement (*Koth*), dust (*Erde*), mud (*Leimen*), and clay (*Thon*). These terms are presented as synonyms in the context of the Biblical story of human creation: God created man from dust, from a malleable dust that, at the mercy of a semantic shift (clay-mud-silt) ends up being equated to organic waste (*Dreck*, *Mist*) and finally feces (*Koth*). The most humble substance is worked by the hands of the Supreme Potter to give rise to the most noble of his creations, as if he wanted to make his problematic son understand: "overcome your disgust and make the best rise up from that which is insignificant and repugnant." If it is natural to be repulsed by defecation, what is proposed here is an *opus contra naturam*. Again, I refer the reader to the end of this paper to draw the most interesting conclusions from this statement.

Changing register and, incidentally, bringing us closer to the specifics of his defense of the usefulness of shit for life, Paullini reminds us that without it "we wouldn't have bread." Furthermore, he claims, if we look at it carefully, in some ways, this human or animal shit is in the bread we eat, as, what else is the compost we use to fertilize our fields? The same is true of wine, as the vines are also fertilized. Therefore, although without this time saying it explicitly, he is again invoking the reli-

²¹ I have maintained the Baroque spelling in which the text is written, which may surprise readers who find erroneous meanings for some of these terms in modern dictionaries: *Thon* today means *tunna*, and the German word for "clay" is *Ton*. *Leimen*, or more exactly *Leim*, today translates as "glue." In the context of the work we must refer to the Latin etymology of the terminus technicus chosen by Paullini: *limus*

gious, even the sacred, in the reader's mind, as it is well known what bread and wine represent in the Christian world view shared by the defenders and detractors of his *Dreck Apotheke*. He also reminds readers, or makes those who do not know aware, that the Romans, who were wiser on this point than the great majority of his own readers, and who were aware of the necessity of agriculture based on fertilizing the ground to their survival, had a god of feces, *Sterculius* or *Sterquilinus* (Paullini, A2 r.).

Moreover, continues Paullini, humans are so illogical that they do not realize an obvious fact: some of the most valuable perfumes, that can only be used in small doses due to both their intensity and their price, such as musk, civet, ambergris, or storax, are none other than excretions from certain mammals, sometimes produced from such suspicious organs as the testicles (Paullini, A3 r.).

Little more conceptual information can be found in the following pages, which are dedicated exclusively to amassing testimony from historical physicians and surprising news about coprophilic attitudes. Some of these attitudes are based on popular beliefs and others clearly have a psychopathological aspect; our author uses them indiscriminately to support his theory. However, what has been highlighted here is sufficient to offer a historical and psychological interpretation of this inopportune defense of "salubrious excremental pharmacopoeia."

A NEW THEORY OF DISGUST

At this point, and to proceed with the interpretation I propose, we must return to the literature on disgust in general terms, but in this case turning to a more current work than that of Angyal, where we started our reflection. I am referring to the work by McGinn (2011), which has the advantage of being based on half a century of research on the topic; research which, although still relatively scant, has allowed for a deeper understanding of the matter. Along with this advantage, this work has the indisputable merit of introducing the reader to successive interpretations of disgust, which the author debates until conveniently arriving at his own conclusions. These conclusions, as we will soon see, are surprising and quite valuable for our purposes of understanding Paullini's seemingly senseless proposal.

Both Angyal's interpretation as well as several more recent interpretations were based on the assumption that disgust is "a sense-based emotion (...). It is, in this way, a primitive perceptual emotion" (McGinn, 2011 pp. 44-45). Let us remember this wording, as we will examine the notion of "primitive" below. Continuing with his discussion of the authors that have gone before him, McGinn highlights a characteristic trait of the experience of

disgust: "the ambivalence is part of the point," to the extreme of noting, based on specific examples, that the objects that cause disgust are often likely to provoke a "morbid fascination" (McGinn, 2011 p. 47). In his opinion, the reason behind this fascination, behind this ambivalence in the supposedly primitive reaction of disgust, is that the majority of the substances that cause disgust, which almost without exception come from the body, unconsciously or semi-consciously evoke the association between something alive (our own body, producer of disgusting substances) and that which no longer belongs to it; that which, coming from life, having been alive, has fallen under the dominion of death. "Disgust rests upon certain thoughts about the world, specifically in relation to life and death" (McGinn, 2011 p. 56).

There is something in the above sentence that is more relevant than what the sentence itself states, and the author is sufficiently aware of this so as to highlight it through the use of italics. We are talking about an emotion, about something supposedly "primitive" according to what we saw above, and suddenly an unexpected word, even paradoxical in this context, appears: "thought." To clarify this seeming incongruity, McGinn (2011) returns to the exceptional world of excrement (exceptional in the field of studying disgust), pointing out that animals do not show disgust before excrement, and even investigate it with their senses, and sometimes ingest it. Angyal, our first reference in this field, had also observed that "there is nothing particularly threatening or dangerous about the wastes of the body which could explain the strong avoidance reaction. These substances do not imply obvious noxiousness" (1941 p. 397). To McGinn, there can only be one explanation: "[Animals] just don't conceive the world in a certain way (...) The perceptual stimuli has to be interpreted by the subject (...) The stimuli has to be seen as representing something beyond themselves- as signs of a deeper truth" (2011 pp. 57-58).

Here he suggests something truly unexpected: in order for the feeling of disgust to arise, there must be, even if only on an unconscious level, interpretation. This leads us to ask if, really, we can continue to consider disgust to be an emotion. Although perhaps there is a more interesting definitive question: must we broaden our idea of emotions? The answer, if yes, would greatly help us to interpret Paullini's provocative excremental therapy. Effectively, this question can be answered in the affirmative. Comparing human attitude to that of other mammals (cats or dogs for example) we can conclude that disgust does not have a protective function in the phylogenetic or adaptive sense, as other emotions do: "Disgust is not useful in the straightforward way that fear and distaste are (...). Disgust is not adaptive in this way (...). In humans no obvious biological need is served by our disgust reactions (...). It is, in a sense, a philosoph-

ical emotion (...) Disgust is an advanced emotion – and hence a late arrival on the evolutionary and ontogenetic scene” (McGinn, 2011 p. 58).

Disgust is a “late arrived” and “philosophical” emotion, an emotion that is not based on the mere relationship between what we observe and the reaction, as it is mediated by an interpretive operation which, according to McGinn’s proposal, is also symbolic, because it links the waste products of a living body with death: “The disgusting processes of life (...) [show] the grim static reality of death” (McGinn, 2011 p. 82). However, this statement requires more explanation. As he himself notes, a skeleton or bones in general are also something that was once alive and is now dead, to the extent that they are often used to allegorically represent death. Yet they do not usually cause disgust, at least not as much as feces, the focus of this work. “Death may be a necessary condition of disgust, but it is not a sufficient condition” (McGinn, 2011 p. 87). It is more complicated, more philosophical than that, in the following sense. In the author’s opinion, this other sufficient condition is as follows: “The disgusting is “death-life” and “life-death” – neither one nor the other, but both” (p. 90). Or to put it more clearly: “In all disgust objects a process of transition seems essential, where the two poles of the transition are life and death” p. (91).

In effect, if McGinn’s idea is correct, a high degree of elaboration is required, even if this elaboration is performed almost exclusively unconsciously, in order for this disgust reaction unique to human beings to take place; and this elaboration takes us to another level: “Disgust is death speaking to us, a little too plainly, a little too tactlessly. We are a disgust species because we are an awareness-of-death species” (2011 pp. 86-87). In the case of human beings, whenever the awareness of our own mortality is involved, we can speak, to a greater or lesser extent, of philosophy and of psychology: “Shit, shockingly, is the sine qua non of the soul” (McGinn, 2011 p. 74).

Excrement, *conditio sine qua non* of the soul! Do we not see here echoes of Paullini’s statements in the introductory pages of his treatise? “He who has a soul also has an anus –he who thinks also shits (...) the ‘fine’ part of our nature is dependent upon the ‘gross’ part, the ‘higher’ on the ‘lower,’” insists our contemporary philosopher (McGinn 2011 p. 137). Now, as promised, let us turn to the interpretation.

INTERPRETATION

A discourse based on antinomy, of which the above sentence is an example, the discourse that is the basis of Paullini’s arguments, is characteristic of alchemy, or at least of a certain type of alchemy. It is characteristic of alchemy that uses a mystic, religious language, which is precisely that

which piqued the interest of Carl Gustav Jung, giving rise to his psychological interpretation of both that language as well as the conception of the work that was expounded using said language. According to the Swiss psychologist, this antinomic nature is typical of the manifestation in our consciousness of the archetypes of the collective unconscious. Therefore, when we find this type of expression in a text we can guess that, whether the author knows it or not, the text is dealing with depth psychology. If we accept this hypothesis, the religious rhetoric of the first pages of Paullini’s text, as well as this desire to invert values that underscores praise for the most despicable and repugnant (human and animal feces and urine) would represent an unrecognized, perhaps not even conscious, legacy of the chemical medicine of Paracelsus, iatrochemistry. This can hardly surprise us knowing that Paullini was a disciple and admirer of the two greatest masters of Baroque iatrochemistry, Silvio and Willis. This legacy, in turn, may refer to an as yet unrecognized field that was, however, intuited by certain lines of medical thought: that of depth psychology. To attempt to back this hypothesis I will use some quotes from Jung and others from James Hillman, perhaps the most influential of the so-called post-Jungian authors to date (Samuels, 1985).

We will begin with the latter because of the possibilities offered by the part of his work that consists of highlighting the main strengths of his teacher’s line of thought. The first matter to consider is the caution that we must use when examining texts that offer an approach to the reality of the psyche, and more specifically those that do so through alchemical metaphors. Therefore I will focus on his volume of studies dedicated exclusively to alchemical psychology (Hillman, 2014). In the first of these, the topic of which is precisely alchemical language, he warns against the “literalism of our own language” and quotes Jung (CW 8: 223-225): “Psychology (...) is still afflicted with a (...) mentality in which no distinction is made between words and things” (Hillman, 12).

It goes without saying that this is the same thing that happens with Paullini. He is also the victim of literalism, to the point of suggesting the administration of real feces and urine. However, inasmuch as he justifies this administration from religious discourse, as the alchemists that preceded him did, he is recognizing his debt to them. Although, to his misfortune and that of his patients, he ignored the essential part of the message: that it refers to another dominion of reality. For Paullini, as for all those in search of the *medicina catholica* sive *universalis* who limited themselves to following exactly what they found written in the books of the experts, “sustantives bec[a]me substances” (Hillman, 12). However we are not interested in defending Paullini, but rather in understanding, in the perspective of the culture of his time, his odd

therapeutic theory. In my view, along with the influence of iatrochemistry, this is the manner to do so.

"Alchemy is animism" (Hillman, 28), not "materialism", as much as, in theory, alchemy claims to concern itself with materials. "By treating the materials as ensouled, by invoking the spirits of metals (...) alchemy found gods in nature, and soul, or animation, in the physical world" (Hillman, 28); and some of these materials are sometimes not even described as metal, but as feces and urine: "the alchemists sought their prima materia in excrement, one of the arcane substances from which it was hoped that the mystic figure of the filius philosophorum would emerge ("in stercore invenitur") (Jung, 5, 276). Once again, this must be taken in a figurative sense, allegorically, never literally. The same is true of urine: *urina puerorum* is not simply children's urine in alchemy texts, but rather a way of referring to mercury, which is also not the metal we know by that name, but *Geist mercurius* – the *spiritus mercurialis* of Paracelsus. The same is true of dog urine, *urina canis* (Jung, 16, 408). It should be added that along with these two substances Jung lists eight other names for philosopher's mercury that are loaded with negative meanings in everyday language.

Here is where we begin to find the possible root of the therapeutic tree of Doctor Christian Franz Paullini; a tree which was already starting to be too exotic for his contemporaries. This is not something that should surprise us. As much as it seems like said author intuited something about a profound relationship between the material and that which it is not, in his case limited to religious-transcendental considerations, neither he nor his contemporaries could establish connections of meaning like those postulated by Jung between the old alchemy and a psychology that would still take centuries to be born. The connection had been lost with that symbolic thinking that reached its peak in the Renaissance and the early years of the Baroque, which enabled one of its most conspicuous alchemists, Gerardus Dorneus (Gerhard Dorn, 1530-1584), to warn those who read his work or that of other experts of the error of considering "that the philosophic matter consists on animal or human blood (...) [or] urine, milk, eggs, hair" (Jung, 1971 pp. 380-381). This is the error which Paullini, with all of his good intentions, commits, allowing a modern reader to detect the trace of a theory whose interpretive key was lost in medicine somewhere between the seventeenth and eighteenth centuries. This key would be that presented by Jung in *Psychology and Alchemy*. "The alchemical opus deals in the main not just with chemical experiments as such, but something resembling psychic processes expressed in pseudo-chemical language. The ancients knew more or less what chemical processes were; therefore they must have known that the thing they practised was, to say the least of it, no ordinary chemis-

try" (Jung, 12, 342).

At the end of the seventeenth century this key appears to have been lost. To the prevailing mentality in Paullini's era, his work could only be judged as foolish, as it was opposed to the most natural and spontaneous thing in human beings: an emotion, disgust, which seemed to protect the body from terrible damage. However, we have already seen how more recent psychological research has cast into doubt this emotion's nature as primary instinct, turning it into something "philosophical" (McGinn, 2011 p. 58). Tying this information in with that from Jungian studies on alchemy, we can reach a deeper understanding on a psychological level of *Dreck-Apotheke*: if the ingestion of excrement and urine, or their use in ophthalmic ointment, to use an example from Paullini's work (Paullini, 38-54), seems *contra naturam*, it is because the alchemists' task was, in the eyes of the common man, an *opus contra naturam* (Jung, 16, 469), as is, to Jung and his disciple Hillman (1975), the task of depth psychology: "Freeing the psyche from its material and natural view of itself and the world is an *opus contra naturam*, a work against nature (...) Although working with natural materials such as urine, quicksilver, or antimony, alchemy changed these substances into fantasies. It recognized the substantial nature of fantasy and the fantasy aspect of all natural substances. This was its true *opus contra naturam*: the transmutation, within the alchemist himself, of the natural viewpoint into the imaginal viewpoint" (p. 91).

CONCLUSION

Despite his emphatic vindication of excremental materials, neither Paullini nor his work achieved their purpose. Thanks to the first lines of the prologue we know that the first edition was the subject of more criticism than praise. The lack of follow-up to the second edition, which relegated it to the level of a mere peculiarity in the history of medicine, is the best evidence that there was no longer anyone willing to listen to a message which, moreover, in my opinion, its own author never really understood.

In my view, Heylsame *Dreck-Apotheke* is above all a type of medical-literary fossil that, on the one hand, with regard to conceptual aspects, is not aware of its true sources. These sources can be traced to iatrochemistry, not so much in its specific proposals (which certainly do not include the use excrement as the therapy of choice to treat dozens of diseases, as Paullini does) as in its ultimately religious rhetoric, especially in terms of this exaltation of that which is disregarded, vile, and repugnant. Additionally, with the symbolic connection between the words and what they aim to designate lost, any intuition of an imaginal, psychological nature is impossible. In the text we have stud-

ied literalism has failed to make the vindication of the salubrious potential of the “excremental” (in quotes) understandable; it has killed the life that was sustained by the symbolic, as it was unable to take the reader beyond the appearances of material and concrete feces and urine. It could be said that it has killed this secret and subtle life... of disgust.

REFERENCES

- ANGYAL A (1941) Disgust and related aversions. *J Abnormal Social Psychol*, 36-3: 393-412.
- GRABNER E (1968) The History of Research in Folk Medicine in German-speaking Countries. *Journal of the Folklore Institute*, 5-2: 152-157.
- HILLMAN J (1975) *Re-Visioning Psychology*. New-York-London, Harper.
- HILLMAN J (2014) *Alchemical Psychology*. Putnam, Spring.
- JUNG CG (1979) *Collected Works*. London Rutledge.
- McGINN C (2011) *The Meaning of Disgust*. Oxford University Press.
- MARX KFH (1872) *Zur Beurtheilung des Arztes Christian Franz Paullini*. Göttingen, Dieterich.
- PAULLINI KF (1713) *Neu-vermehrte Heylsame Dreck-Apotheke*. Frankfurt am Main, Knochen, 1713.
- ROTHSCHUH KE (1978) *Konzepte der Medizin in Vergangenheit und Gegenwart*. Stuttgart, Hippokrates.
- SAMUELS A (1985) *Jung and the Post-Jungians*. London, Routledge & Kegan Paul.
- STIEHLER-ALEGRIA G (2007) Hatte die Zoothérapie Ägyptischer und Babylonischer Pharmakopoen Einfluss auf die “Dreck-Apotheke” des 17. Jahrhunderts? *Isimu*, 10: 183-201.

Sick skin. The history of the dermatological representations in Olavide Museum

Amaya Maruri, David Aranda

Museo de Olavide de la Fundación Piel Sana de la AEDV, Universidad Complutense, Madrid, Spain

SUMMARY

This article presents a review of the history of dermatology through the visual teaching aids employed, including both two-dimensional illustrations in texts such as the dermatological atlases, and three-dimensional representations through moulages. We will examine the Olavide Museum and its contextualisation within 19th century dermatology, concluding with an analysis of a pathology within the institution's systems of representation. The guiding thread throughout this study will be the emotion of disgust in relation to disease. We aim to show how disgust does not invariably respond to an atavistic mechanism but rather can be influenced by our knowledge, our methods of observation and our ability to "transform" reality.

Key words: History of dermatology – Olavide Museum – Skin pathologies – Dermatological representation

INTRODUCTION

Pustules, papules, ulcers, sores, buboes, rashes, dandruff, scars... a few words to describe skin lesions that, for most of us, cause at least a sense of unease. Beyond ugliness, disgust is an emotion that manifests itself through strong feelings of repulsion towards objects, people or even morally reprehensible conducts. Disgust causes rejection, repugnance and horror, expressed through strong physiological responses such as nausea or fear. We tend to avoid formal objects that have been in

contact with something disgusting, as well as those that resemble something we consider repugnant. Disease can also produce in us this kind of feelings, particularly "visible" ailments such as those associated with its pathologies.

The human skin weighs around 5kg and has a surface area of approximately 2 square metres. It is the body's largest organ and protects it from external aggressions, helping to preserve its structural integrity while allowing communication with the surrounding environment. From an emotional and social viewpoint, our skin represents, together with our clothes, the outside image we present to the world, though unlike clothes it is not replaceable. The visible parts of the skin, especially face and hands, uncovered by body hair and therefore more exposed, present the palpable layer of our organism. In a sense, they can be compared to a "visiting card" to others. By a simple glance or a handshake, we gain our first impression regarding age, race and even some information about the person's state of health. Hence from antiquity humans have painted and/or otherwise made up the skin depending on what the relevant occasion, rite or event required.

Diseases of the skin are patently visibly expressed upon it, yet its study as an organ did not commence until well into the 17th Century. Throughout antiquity and the medieval period, skin was considered simply an external covering, wrapping the body. It was believed that skin afflictions were mere seepage of deeper pathological humours affecting internal organs and that, therefore, one had to let them follow their course. Theoretical medical knowledge had not advanced significantly

Corresponding author: Amaya Maruri, Museo de Olavide de la Fundación Piel Sana de la AEDV, Universidad Complutense, Madrid, Spain
E-mail: museo@museoolavide.es

since Galen's times and it is therefore not surprising that there was no great demand for illustrations of cutaneous pathologies. A rare example can be found in Hans von Gerssdorff's (1455? –1529) 1517 manual of battlefield wound surgery, containing 24 woodcuts representing what was then known as anatomy and, as the title suggests, instructions on the bandaging of wounds. This image shows a leper with lesions on his head, chest and legs. He is surrounded by three practitioners who examine him closely: one looks at his urine, another presses on the lesion on his forehead. A third, on the left, is charged with washing his bandages (Fig. 1).

However this type of illustration is rather uncommon. The only developed systems of diagnosis at the time were, indeed, those referring to pathologies already known such as leprosy, plague, syphilis or smallpox, due to the devastating consequences of these diseases. Anyone with such ailments was isolated and stigmatized. The resulting deformities, the fear of contagion and the "divine punishment" imposed by religious morality required their confinement in hospitals or leper colonies. Medical advances during the middle ag-

es were above all found in the Islamic world. According to Sierra Valentí, the Islamic world, thirsty for knowledge, absorbed the Greek and Roman heritage into their own culture and further built upon these foundations. Figures like Rhazés of Persia (860-932), Avicenna (980-1037), Albucasis of Medinat al Zahra (1092-1161), most originating from Al-Andalus, furthered and advanced medical knowledge through pharmacology, alchemy, descriptions of cutaneous diseases (such as smallpox, chicken pox, leprosy or scabies) and even the use of cosmetics. (Sierra, 1994 p 85-98).

In the Western world meanwhile, we find books populated with frequent illustrations of monsters and marvels. Monsters were generally fantastic creatures, inhuman or part-human and part-animal, drawn from the collective imagination and presumed to inhabit strange lands yet to be explored. Marvels on the other hand were humans with "natural" deformities such as anencephaly, polydactyly or hermaphroditism, considered harbingers of imminent misfortunes (Eco, 2016).

It is pertinent here to note that, while "known" diseases of "cutaneous" or other nature led to the confinement and social rejection of the afflicted, disgust playing the role of atavistic mechanism, in the case of genetic pathologies that caused disfigurements, this feeling was not manifest in the same way. The enormous deformities that nowadays might provoke feelings of aversion or even disgust were instead seen as intellectually exciting, later leading to the creation of so-called cabinets of curiosities or chambers of wonders, the precursors of today's museums. In the context of relative ignorance of the body and its diseases, disgust did not emerge when faced with a patent deformity, but from the latter's potential consequences, for example contagion of the affliction.

Dissection of cadavers allowed medicine to move beyond the anatomical knowledge provided by books. Even though Mondino de Luzzi (1270-1324) and Guy de Chauliac (1290-1368) had already performed dissections in the middle ages in Italy and France respectively, it was Andreas Vesalius (1514-1564) who ushered in a definitive break with Galen's heritage. The first edition of "De humani corporis fabrica", published in 1543 with more than 300 woodcuts attributed to Jan Stefan van Kalkar (1499-1550), a disciple of Titian's, for the first time shows anatomy as an independent discipline, in which the different parts of the body were described objectively, separate from their organic functions (Martínez, 2004 pp. 123-125).

Starting from Vesalius' impulse, throughout the 17th Century we see detailed and progressive investigation of every human organ. The body is opened, dissected, no longer secret. It appears as a border against the outside, as a factor of singularity and individualization. Smooth, soft, white skin is synonymous with purity, generally attributed to the aristocracy, while darker skins evoke corrup-



Fig 1. Hans Von Gerssdorff. *Feldtbuch der Wundartzney*. Estrasburgo. 1517. Photo: Wellcome library.

tion (Martínez, 2011).

In the history of dermatology, the discovery of the fact that the skin constitutes a discrete organ capable of contracting diseases led to the study of cutaneous lesions. Linnaeus's (1707-1778) classification of the vegetable kingdom prepared the way for the elaboration of a system of classification similar to that applied to cutaneous pathology. The many and varied changes in the skin's appearance, especially those that appear during the first phases of disease, were divided in basic typical changes or "lesions". Afterwards, the surgeon Joseph Jacob Plenck (1735-1807) would describe lesions in such detail that any reader could imagine them and thus reach a diagnosis. (Ehring, 2005 pp. 7-10). The knowledge of the skin as an organ, its mechanisms and its pathology rediscovered a rational and objective approach to the study of this organ, already begun in the preceding centuries. The scientific method minimized subjectivity and with it the possible emotions generated by it.

The observation is systematized. It is no longer through the ordinary, unscientific, gaze that casual or occasional perceptions are made without prior hypothesis, but rather it becomes a tool for scrutinising the phenomenon before one's eyes, grouping the information from certain criteria set and tending towards elimination of any previous cognitive bias. On the other hand, for such "rational observation" to occur, the observer must learn to modulate their sensations and to discriminate in their perception of forms, producing a specific blindness that, according to the historian of science Ludwick Fleck, "enables medical observation without the feeling of disgust occurring" (Fakiner, 2014 pp. 82-83).

Fear, disgust or aversion no longer had a place faced with empirical knowledge. The appearance and integration of these new fields of medicine complicated and enriched dermatological terminology, leading to the description of new diseases and the creation of diverse classifications. The atlases and textbooks increased in size, with illustrations being increasingly used with the aim of providing a graphic and objective description of new perspectives. Dermatology as a medical specialty grew, developed and defined itself throughout the 19th Century. In hospitals, patients with cutaneous pathologies were segregated from others. Venereal diseases were also included in the field of dermatology since syphilis, by far the most abundant pathology, visibly projected itself on the patient's skin. This is evident in the fact that, to this day, the world's leading dermatological medical associations continue to show venereology as an inalienable part of their specialty (EADV, European Academy of Dermatology and Venereology, AEDV

Spanish Academy of Dermatology and Venerology, etc.).

SPANISH DERMATOLOGY IN THE 19TH CENTURY: SAN JUAN DE DIOS HOSPITAL AND DR. OLAVIDE

Since its foundation by Antón Martín in the year 1552, the San Juan de Dios Hospital in Madrid was devoted, practically in its entirety, to caring for the sick "wounded" poor. Among the patients, all suffering from affliction of the skin, were those with ringworm, leprosy, mange or tuberculosis but also those with syphilis and carriers of all types of venereal diseases. Afflictions that had not only physical repercussions, but also moral implications.

To give an image of how the San Juan de Dios Hospital was in the mid-nineteenth century is to approach a world of suffering and misery. As Justo Leal (1903) describes in his article "Visit to a hospital" in the *New World* magazine in March 1903: "San Juan de Dios is a different kind of hospital. It has its own personality, very bitter by the way, and its characteristic hurts human sentiment". He proceeds to remind us of the unhappy trajectories of the hospital's inmates in a subjective and moralizing way:

There can be found those who, pushed by vice or misery, tumbled from hand to hand on the streets until ending up in a bed upon which there is no more than a number and a sheet with the diagnosis. They live a life of pains and anguish there, young women, almost girls, sentenced to death through terrible illness. There can be found the female who succumbed without love, without being loved, the victim of hunger, the whore by temperament, the wretched (Leal 1903).

Finally, he provides an overview of the hospital environment "The air breathed in that building weighs and terrifies. All that is heard are screams of pain, all that is seen are young women that appear old, and wretches from whom all flee from disgust or fear. It is unforgettable."

This dramatic first impression of life inside the Hospital of San Juan de Dios shows us to what influence the presence of an institution that harbored such "bad fame", right in the center of Madrid, had on the author's contemporaries. The original location was centered between the streets of Atocha and Santa Isabel, in the square that bears the name of its founder.

In fact, from the mid-nineteenth century until almost the extinction of the same, the institution had to contend with protests from its neighbours, intent on moving this establishment, which "[...] deals with the most disgusting and repugnant skin diseases [...] and houses impudent and prostituted

¹Own translations

women", to a less central place because "among all civilized people the sick of this class are kept apart from the population". In addition, the women peering out of the hospital "infect, offend morality and public decorum" as recounted by a neighborhood letter of 1853 addressed to Mr. Antonio Benavides, responsible for Charitable works. The solution given to put lattices in the windows was not very well received because "although they impede the view, they certainly also intercept the air, so that in summer you can not live in, or pass in vicinity of the Hospital" (García, 2016 p. 543).

It is within this apparently desolate framework that the figure of Dr. José Eugenio Olavide, (1836-1901) considered the "Father of Spanish Dermatology", emerges. In 1860, he entered the San Juan de Dios Hospital, in charge of the wards of skin diseases. However, the sorrowful and heartbreaking atmosphere that he breathes there did not seem to intimidate him. What's more, he describes the hospital's infirmary as "a great natural museum where the eye quickly becomes accustomed to observing the minutest details of different dermatoses" (Olavide, 1871 p. 5). This fact underlines again the different "attitude" of the doctor towards the object of observation, approaching it instead of avoiding it, aware of the perception of the forms and discriminating some in favor of others, perhaps more specific and subtle, but necessary to enable medical observation without feeling disgust (Fakiner, 2014 p. 83).

Olavide observes, experiments and deduces to elaborate his own theory of "classification of dermatological lesions". He records analogies and differences, collects observations, orders, groups, synthesizes ... He focuses on the essential, the useful and practical, away from erudition, scholastic minutiae or theoretical abstraction. These scientific observations and with the firm purpose of teaching "this medical specialty as important as it is unknown in Spain" (1871 p. 6) will give shape to his two fundamental legacies: the written work, "iconographic Clinic of skin diseases or dermatosis" and the Museum of Dermatological Ceroplasties, the "Olavide Museum".

Atlas de la Clínica Iconográfica de las enfermedades de la piel o dermatosis

Spanish dermatology is considered to emerge with the publication of Olavide's Atlas (Madrid 1871-1881?), based on his and his disciple's work in the San Juan de Dios hospital.

It is a complex work, stretching over a long period of time and consisting mainly of two volumes. The first corresponds to the text of the work and consists of the lessons on the main cutaneous affections taught by Dr. Olavide. The second volume is the "atlas" proper, consisting of 166 chromolithographs and clinical observations made directly from patients admitted to the San Juan de Dios Hospital. We will deal with the latter below.

El Atlas de la Clínica Iconográfica de las enfermedades de la piel o dermatosis is an ample tome, edited in double folio pages with the intention of representing lesions at real size. It started out was released by instalments from 1871 and in 1881 publication continued. (Del Rio, 1996 pp.126-130). Although Olavide says that he produced this publication for practical reasons since he "lacked the necessary practical teaching that, unfortunately, is not imparted in our Medical Schools", (Olavide, 1871 p5) the truth is that this type of objective and systematically illustrated dermatological atlas already existed since the late eighteenth century.

The majority of clinical cases appearing in the atlas are of patients interned in the hospital. The oldest illustration dates from August 1866 and shows the inside of an arm and hand on which syphilitic lesions can be seen. The folio is titled "Sifilide tuberculosa generalizada" and corresponds to a 33 year old patient (Fig. 2).

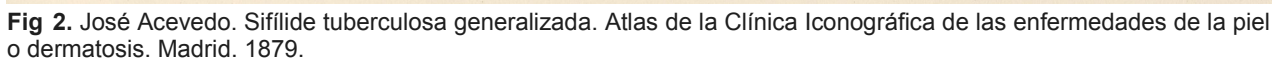
The drawings were by José Acevedo, whom Olavide praises in his prologue to the Iconographic Clinic of skin diseases or dermatosis: "he has given evidence, not only of his artistic talent, but of his abnegation for a science that demanded from his brush the exact copy of the ugly, of the disgusting, of the horrible, instead of his ideal of beauty." And he continues: "He is, in my opinion, the most important of those involved in the creation of this work, because he reproduces the very patient and describes him with his art, better than I with my scarce science" (Olavide, 1871 p. 96).

The collaboration between doctor and artist for the elaboration of this type of works must have been a close one. In the 18th century, the illustrator became an essential member of any scientific project. One consequence was the necessary training, in many cases, of the doctors themselves as illustrators, which would remain until the emergence of photography. In other cases requiring the participation of an artist, their selection was fundamental as well as highly complex. As the physician, naturalist and draftsman Tilesius already asserted in 1801: "skilled artists do not find it easy to reproduce objects that are not aesthetically pleasing to their eyes. Even when applied to this task, they work with aversion and inadequate knowledge of the pathological characteristics (...)" He concludes: "Their work, abundant in proof of their artistic ability and idealized beauty, speaks to us more about the splendor of the Greek civilization than of the nature or properties of the disease" (Ehring, 1995 p15).

Again, we find two different gazes upon the same object. The artist will have to adjust theirs by means of a process of "relearning" if they want to achieve an objective illustration of the disease.

THE BIRTH OF THE OLAVIDE MUSEUM

The dermatological representation was not lim-



Actually, "models" are not artistic objects, or at least not in the first instance. Like the illustrated scientific atlases, these artifacts were used as an aid in the medical field to focus on knowledge, ideas and discoveries. Their very creation results from the desire to teach. And the wax used in their creation is what produces their "veracity". This fact is especially relevant in the case of dermatological

Olavide's restless and teaching spirit led him to also explore this field as a didactic technique. We assume that he encountered the sculptor Jules Baretta's moulages at the Saint Louis Hospital during his stay in Paris. The sight of such realistic reproductions must have seduced him because he began to conceive the idea of the use of moulages as didactic material.

According to Conde-Salazar's research (2006), the Museum opened on the 26th December 1882, calling itself "Anatomopathological, Chromolithographic and Microscopic Museum of the San Juan de Dios Hospital". After Olavide's death in 1901 the museum was renamed Olavide Museum, in honour of its founder, the name by which it remains known to this day.

The teaching mission of the museum justified the creation of wax casts or moulages. The museum's

figures, which enjoyed great prestige throughout Europe, were made life size, representing more or less extensive areas of skin, unlike those found in the Parisian Saint Louis Hospital, where only the lesion was reproduced, thus providing a surprising level of realism. The wax mould was surrounded by a white gauze, by which it was fixed to a wooden board upon which were attached labels with a number and diagnosis as well as identification of the clinic and the sculptor. Nevertheless the most unique characteristic of this collection is the existence of medical histories for each model, attached to the back of the board, which tell in a subjective, almost literary style, the clinical details, evolution and treatment and providing additional details about the patient, their life, history, profession or their fears and uncertainties faced with the disease.

The majority of the museum's wax figures were created by the sculptor Enrique Zofío created the majority of the museum's wax figures in its heyday. José Barta Bernadotta and Rafael López Álvarez were his twentieth-century successors, completing the museum's collection. With the advent of photography and, above all, the discovery of new effective cures for venereal and dermatological afflictions, especially syphilis, the Museum languished until its permanent closure in 1966. The collection was finally put into storage by Rafael López Álvarez and remained in silent obscurity for almost forty years, until the rediscovery of the complete wax collection in the basement of Madrid's Niño Jesús hospital in 2005.

A CASE STUDY: HOW CONTAGION THROUGH PARASITES CAN BECOME SOMETHING BEAUTIFUL: RINGWORM

Disgust in relation to disease touches a range of concepts, from contagion to death and decomposition of the body. They all generate in us feelings of repulsion that, in our opinion, are related to loss: loss of health (contagion), loss of identity and facing nothingness (death) or loss of the corporeal as a consequence of death (decomposition).

Next we will study a case of disgust of the "tinea" disease caused by a parasitic fungus, through the representation systems that the Olavide Museum possesses: the illustrations and texts of the Atlas of the Iconographic Clinic of skin diseases or dermatosis "and the moulages (Olavide, 1873).

Contagion is defined as the transmission of a disease from a sick individual to a healthy one. This can happen directly or indirectly. Indirect contagion implies propagation of the disease through an intermediary. This can be a medium like air or water, a vector like protozoa or an insect, or it can happen through contaminated objects like clothing or food. In any case, the infectious agent is invisible and avoiding contagion implies previously learned experience. In direct contagion, however,

disgust is more patently manifest as an alarm and protection mechanism, faced with disease propagation. This happens through body fluids like blood, sweat, semen or saliva, indicating the requirement for intimate contact with the diseased body. In the case of syphilis, gonorrhoea and other venereal diseases, the concept of disgust is more complex and requires exploring from a different perspectives since the idea incorporates a variety of linked and often opposite terms such as the intimate, the hidden, desire, fear and morality.

We will not examine disgust in venereal pathologies, as this requires a deeper reading beyond the medical sphere, linking psychological, cultural, social and ethical factors, far beyond the scope of this article. Instead, we will attempt to approach disgust from a "medical" viewpoint, through infections of the skin.

Close intimate contact is not necessary in order to produce a feeling of rejection or repugnance. In a hygienic society like ours, it suffices to review cases of ringworm (*tinea Favosa*), present in the most disadvantaged layers of society little more than a century and a half ago, whose skin was extensively colonised by fungal infestations. Evoking the nauseating smell generated by these "honeycomb cells" and the presence of insects and parasites within are sufficient to terrify us even now.

Let us examine, for example, illustration VII of the Phito-parasitic dermatoses contained in the Atlas, entitled "Tinea or tonsural herpes (second period)". It is a chromolithography divided into two well differentiated parts. The upper part consists of a framed image of a child, showing the reader the top of its head. Below the illustration, the medical record of this patient can be read, divided into two sections: "Observations" and "Healing Plan". Between the two parts can be read the image's title, doubling as the medical diagnosis: "Tinea or tonsuring herpes (second stage)" (Olavide, 1873 p.578) (Fig. 3).

The text usually begins with patient data such as their initials, place of birth, age and date of admission:

A. García, five year-old child, natural of Madrid, orphanage dweller, of lymphatic-nervous temperament and usually good health, entered the hospital on the 9th of January 1868, occupying bed number 2 in Santa Barbara ward. They attribute his ailment to contact with other children that have spots on their heads. Over a month ago he too began noticing them and frequently scratched himself. He brought this to the attention of the wardens who saw a red plaque formed on the crown, covered in small vesiculous spots and forming a circle about half an inch in diameter, within which the hair had somewhat changed in colour and lost its normal shine and consistency, breaking at the lightest friction (...).

The description of the disease's evolution is es-



Fig 3. José Acevedo. Tiña o herpes tonsurante (segundo periodo). Atlas de la Clínica Iconográfica de las enfermedades de la piel o dermatosis. Madrid. 1879.

pecially graphic, with a great profusion of adjectives that lead us to imagine, without much difficulty, the patient's condition:

At the same time, and maybe because the boy did not stop scratching, numerous scabs appeared all over the head, humid and yellowish or amber in colour, exuding an unbearable stench, and he was covered in parasites, which increased the itching, and coinciding with the complete loss of hair from the tonsure, which increased daily. The day of his admittance to the infirmary the head was covered by eruptions of different types, erythematous plaques, groups of vesicular pustules, yellow scabs, furfuraceous scales excoriations or scratches.

There is a particularly striking paragraph that evokes in us a sense of horror:

In between the hair, which it was deemed necessary to shave immediately, ran infinite parasites and on the head's vertex one could see a circle or tonsure of two inches in diameter, covered by a white substance (...).

The medical records are, in general, very extensive. They are written following a narrative style, with long phrases, a large number of attributes and few line breaks. For that reason, sometimes they



Fig 4. Enrique Zofío. Tiña tonsurante. Museo Olavide. 1881. Madrid. Photo: David Aranda Gabrielli.

can be arduous to read, although their literary style makes some passages really entertaining and suggestive. They follow the style predominant in scientific texts of the time, very different from the aseptic narration that is generally used in scientific communications nowadays (Heras, 2010 p55). Its illustration is also scientific in nature. The child shows the viewer the upper side of his head where the main lesion described in the case notes is located. The lesion's location on the upper side of the skull is significant for the differential diagnosis. On the upper left side of the illustration, we can see the microscopic representation of the fungus' hyphae.

Nevertheless, not all iconographic representations in the Olavide Museum present the same neutrality. If we compare the preceding illustration with the moulage number 441 that shares the same diagnosis "Tonsural ringworm" and shows a boy of approximately the same age and with the same clinical characteristics, we see that its representation differs, adding a more aesthetic feel (Fig. 4).

The figure adopts a central position, though slightly angled to the right side so that the patient's expression may be seen. The ringworm on the

other hand is located, as we already mentioned, on the upper side of the skull and not visible at first glance to the observer. The child's gaze and expression are downcast. This model was sculpted with great sensibility. The child's pale skin, delicate traits and the rosy colour of his mouth all contrast sharply with the idea of a fungal infestation provoked by poor hygiene and malnourishment.

We have found no evidence from which to deduce predominance in certain cases of the aesthetic character over the scientific in the same pathology, the reason behind the most poetic representation of certain works instead of the most objective option. We could argue that with wax representation giving the pathology three-dimensionality and increased realism over mere illustrations, the contemplation of a certain "beauty" is used as a "tool" to avoid the observer feeling disgust. However, as we have previously argued, the observer of this type of artifact was a "trained" observer. It could be on the other hand, that the type of patient represented leads to an idealization of the disease, because children are symbols of naivety and purity, and these qualities generate attraction and protective instincts, something clearly opposed to the feeling of disgust. Finally we must not forget the alternative of creating a "work of art". Bearing in mind that the sculptor / illustrator rarely lived in proximity to the kind of beauty that inspired artists and that they were required to, in any case, submit in their artistic creation to a more objective and rationalistic language, it is possible that they wanted to manifest the "idealization" of the disease in certain subconsciously permitted occasions. Or, perhaps, the choice was more in the artist themselves and in their inspiration.

In any case, the doctor-artist tandem worked for several centuries, complementing and enriching, proving that you could modulate and even transform the sensations, sometimes sublimating the feeling of disgust produced by the vision of diseased skin, most often rationalizing this feeling, to give rise to the great works of scientific knowledge that have survived to this day.

ACKNOWLEDGEMENTS

We would like to thank Luis Conde-Salazar, for his generosity and indefatigable attitude in the rescue of the Olavide Museum. Many thanks to Javier Moscoso for giving us the chance to write this article. We are very grateful to our dear friend Felix von Reisz, for his invaluable collaboration in the English translation of this article.

REFERENCES

- BALLESTRIERO R (2013) Efigie, cadáver y cuerpo enfermo en la ceroplastia. Doctoral Thesis, Universidad Complutense de Madrid. Available: <https://eprints.ucm.es/22304/>
- CONDE-SALAZAR L et al (2006) Piel de Cera. Olavide, San Juan de Dios y el Museo. Editorial Luzán, Madrid.
- DEL RIO E (1996) Los orígenes de la escuela madrileña de Dermatología. Doctoral Thesis, Universidad Complutense de Madrid. Available: <https://eprints.ucm.es/2866/1/T21137.pdf>
- ECO U (2016) Historia de la fealdad. DeBolsillo, Barcelona.
- EHRING F (1995) Ilustración Científica en Dermatología. Cinco siglos de historia. Edika Med, Barcelona.
- FAKINER N (2014) Propiedades materiales y experiencias subjetivas: los modelos anatómicos de Gustav Zeiller (1850-1904). Doctoral Thesis, Universidad Complutense de Madrid. Available: <https://eprints.ucm.es/24826/>
- GARCÍA L (2016) Antón Martín: historia y arte del madrileño Hospital de la Orden de San Juan de Dios. Doctoral Thesis, Universidad Complutense de Madrid. Available: <https://eprints.ucm.es/37015/>
- HERAS F (2010) Figuras e historias clínicas del Museo Olavide: estudio dermatológico. Doctoral Thesis, Universidad Autónoma de Madrid. Available: <https://repositorio.uam.es/handle/10486/4299>
- LEAL J (1903) Rev. Nuevo Mundo. 25 March, 10(481).
- MARTÍNEZ J (2004) La ilustración como categoría. Una teoría unificada sobre arte y conocimiento. Ediciones Trea, Gijón.
- MARTÍNEZ S (2011) La piel como superficie simbólica. Procesos de transculturación en el arte contemporáneo. Fondo de Cultura Económica de España, Madrid.
- OLAVIDE JE (1871) Dermatología general y clínica iconográfica de las enfermedades de la piel o dermatosis. Imprenta T. Fortanet, Madrid.
- OLAVIDE JE (1873) Atlas de la clínica iconográfica de las enfermedades de la piel o dermatosis. Imprenta T. Fortanet, Madrid.
- SIERRA X (1994) Historia de la Dermatología. MRA ediciones, Barcelona.

Blood and pollution: visualisations of menstrual flow in contemporary art

Pedro A. Cruz

Lecturer in Art History, University of Murcia (Spain)

SUMMARY

Nowadays menstrual blood is the only kind that neo-capitalist patriarchal decorum will not tolerate. At a time when the visual industry has successfully monetarised the “seduction of blood”, the representation of this type of female fluid remains completely barred and relegated to invisibility. The identification of menstrual blood with pollution has become a hegemonic cultural construct that seeks to safeguard the ideals of purity and whiteness through which women’s bodies are socially coded. Contemporary artistic practice has reacted against this state of affairs by turning this cultural dirtiness into a political tool with which to expand the limits of female body experience. From the early 1970s to the present, a number of women artists have made crucial contributions to this field of work known as menstrual art, in which the primary aim has been to formulate an alternative image of periods that could put women back in control of the most intimate aspects of their physical and emotional identity.

Key words: Art – Female – Menstruation – Blood – Pollution – Dirtiness

INTRODUCTION

In 2015 Instagram censored a series of photographs which the Canadian poet and illustrator Rupī Kaur posted on her wall under the title *Period*. In one of them, Kaur, sitting on the toilet and framed so that only the lower half of her body can be seen, is about to drop a blood-stained sanitary

pad into a bin. In another, the artist is shown lying on a bed, with her back to the viewer, in an apparently calm, innocuous scene, the “only” unusual element being two menstrual bloodstains that have soaked through her trousers and the sheet. Faced with such a disproportionate response from the Instagram administrators, the question that immediately arises is: What is it about menstrual blood that merely visualising it on one discreet, isolated occasion should trigger this repressive reaction? Why do social and news media tolerate other types of blood, but not the kind that emanates from women during their period? Elissa Stein and Susan Kim point out, not without a certain astonishment, how in films, television programmes and advertisements menstruation is not referred to by name and not the slightest sign of it can be seen: “in fact, although you can watch buckets of fake blood merrily splooding out of heads and torsos because of fists, bullets, knives, car accidents, grenades, bombs, breaking glass, garrotes, machetes, falling buildings, swords, laser beams, airlines crashes, or hungry mutant zombies, rarely will you ever see a single drop as a result of menstruation” (Stein and Kim, 2009 p.2). An analysis of the strategies of representation of the menstrual cycle over the last forty years would tend to confirm the standardisation of a language that “has been essentially purged of menstruation” (p. 4) and has codified a “bloodless” visual environment, characterised by a self-interested neutrality (p. 3).

Nowadays menstrual blood is the only kind that neo-capitalist patriarchal decorum will not tolerate. At a time when the visual industry has successfully monetarised the “seduction of blood”, the representation of this type of female fluid remains completely barred and relegated to invisibility. In

Corresponding author: Pedro A. Cruz Sánchez. Lecturer in Art History, University of Murcia (Spain)
E-mail: pacruz@um.es

this sense there is no doubt that a biological event, which is what menstruation is, has ended up turning into an ideological phenomenon (Kissling, 2002 p. 5). And that when we examine this ideological dimension, policies on representing menstruation promoted up till now have served to reinforce the dichotomy between masculinity and femininity, rather than to challenge the gender stereotypes that underpin it (p. 11).

MENSTRUAL ART: POLLUTION AND ASCO

The image of menstrual blood has been socially constructed over the course of history in a way that has turned a benign process essential to the production of human life into something that evokes fear, disgust, and comparison to toxic waste (Johnston-Robledo and Chrisler, 2013 p. 9). Coincidence or not, it is worth noting the close homophonic relationship between “menstruate” and “monstrous”, predetermined by their respective Indo-European etymons: *mehns* for menstruation and *men* for monster. Similarly, it is indicative of the degree of contamination with which menstrual blood is perceived that Julia Kristeva not only includes it in the category of abject materials but couples it with excrement when discussing it (Kristeva, 1982 p. 71). Although it is true that the excessive emphasis on the identification of menstrual blood with pollution has sometimes obscured collaboration between the sexes, as occurs in Papua New Guinea (Hoskins, 2002 p. 300), it is indisputable that this type of blood is interpreted as a dirty fluid, a cause of disease and of all kinds of mental illnesses.

To understand why even today the redness of menstrual blood still represents a threat to the prevailing regime of visibility, its level of pollution should be examined against the contrasting background of the myths of purity and whiteness on which the ideal of Western femininity is founded. Far from being an anachronistic hermeneutic code that does not fit easily into current social dynamics, the “purity = whiteness” equivalence has been experiencing a rapid resurgence which deserves attention. Indeed, the increasing importance that the idea of the “perfect virgin” has been acquiring in societies such as the United States has led to the “virginity movement”, as it is known, becoming the new authority within the realm of sexuality (Valenti, 2010 pp. 31, 62). Its obsession with the purity of the female body exerts violent pressure on the processes of constructing women’s physical identity, subjecting it to a restrictive experience of the body. The Virgin Mary is an inescapable paradigm in this context, and it is no accident that she is identified as the supreme exemplar of “feminine white-

ness” (Dyer, 1997 p. 74). This identification of women’s bodies with the purity of whiteness underwent a particular upsurge in the years following the Second World War. In France, for example, as a reflection of what was happening in idealised US society, magazines like *Elle*, *Femmes d’Aujourd’hui*, *Marie-Claire* and *Marie-France* took on the task of defining a model of womanhood linked to housework, selflessly dedicated to keeping the home as clean as possible. “If the woman is clean, the family is clean, the nation is clean”, as Kristin Ross puts it (Ross, 1999 p. 78).

This model of the immaculate, untainted woman subjected to politics of representation governed by the “cleanliness principle” obviously does not allow for the intrusion of any menstrual stain that might impair the purity of her image. Indeed, the coercion imposed by this whole visual culture leads the female subject to interiorise the notion that “a pure/purified woman would hardly menstruate” (Laws, 1990 p. 34). The dirtiness that menstruation entails perverts the ideal of womanhood constructed by the patriarchal gaze. And this leads to the leakage of menstrual blood being experienced traumatically as something that taints her femininity and must therefore be kept out of sight (Johnston-Robledo and Chrisler, 2013 p. 10). In contrast to the social acceptance and inclusive effect of white, the red of menstrual blood is categorised as a reality to be despised and forbidden, with the capacity to wound women (Shuttle, 1986 p. 21).

The question that arises from observing this purificatory visual culture, hegemonically white and with no room at all for the visualisation of menstrual blood, is how art has handled this “forbidden red” in the last few decades. What are the representational strategies devised by women artists to give menstrual flow a public, dehierarchised image? If we consider the variety of works that have explicitly confronted this challenge scattered through the history of art from the 1970s to the present, three models of representation of menstrual blood can be distinguished: decorporealised visualisation of bleeding and political reinterpretation of its contaminating effects, “in-corporation” of the flow as “free bleeding”, and creative aestheticisation of menstrual blood.

DECORPORALED VISUALISATION OF BLEEDING

In 1971 Judy Chicago produced one of her most iconic works: *Red Flag*. This photolithograph shows, in full detail, a woman’s hand removing a bloodstained tampon from her vagina. A year later, in 1972, Chicago took part in the legendary, semi-

¹Before it was identified, in 1931, premenstrual syndrome (PMS) was labelled by doctors as the product of neurotic, nervous or hysterical states. Indeed, Elissa Stein and Susan Kim establish a line of descent between PMS and hysteria (68), to the extent that both sets of emotional symptoms are reduced to diagnoses that emphasise mental disorder and, in short, a breakdown of the rational regime determined by patriarchal society

nal exhibition *Womanhouse* with her installation *Menstruation Bathroom*, in which she shows a bathroom overflowing with all kinds of menstrual hygiene brands and products: spots of blood on the floor, a bin full of bloodstained sanitary pads, shelves displaying dozens of packets of pads, tampons and other paraphernalia of feminine hygiene... And in 1973, Mako Idemitsu created the video piece *What a Woman Made*, in which we see the blurry image of a tampon slowly oozing blood into a white toilet bowl. Finally, in 1998, Tracey Emin delivered her famous and controversial work *My Bed*, an intimate diary of two weeks shut away at home depressed, showing an unmade bed and a rug covered with a mass of detritus, prominent among which is underwear stained with menstrual blood.

The salient points emerging from these few precursors that appeared in the early 1970s, with an interesting addendum in the late 1990s, are, firstly, the need these pioneering women artists felt to transgress the taboo of menstrual blood and construct an image for it. The motif of bleeding in itself includes women's subjectivity without having to be contextualised in the reality of the body. So urgent was it to rescue this flow from the marginalisation of invisibility that blood is treated as an absolute requiring no supplementary framework of visualisation. In a sense, this lack of interest in the body marks a trend that was to remain unchanged over time, namely the lack of interest these artists show in exploring the connections between menstruation and sexuality (Fahs, 2011 p. 151). Menstrual art, as it is known, has explicitly opted for the strand of feminism that refrains from representing the body as a way of avoiding the inexorable sexual objectification of women to which any kind of bodily presence leads.

This limitation of visual strategies to the phenomenon of blood itself is not, contrary to what one might think, an exercise in redemption of its culturally constructed dirtiness. As Breanne Fahs argues, menstrual art "teeters on the edge of inducing outright panic and introducing chaos into such social hierarchies" (Fahs, 2016 p. 107). Although it is more difficult to appreciate in the blurred image used by Mako Idemitsu, in the case of both Judy Chicago and Tracey Emin there is a predominant aim of launching the "pollution bomb" of menstrual blood against the hygienic regime of patriarchal society. Faced with the notion of dirtiness as an element of humiliation and discrimination codified by the male gaze, the response of both artists is to exhibit it as a political weapon. It is not a matter of "cleaning" the image of blood but of contaminating the pure identity of femininity. Moreover, this counterattack from the abject seeks to infuse an activist meaning into what had been reduced — by exclusion — to passivity: the female genital organ. Indeed, the idea that the penis is cleaner than the vagina (Valenti, 2010 p. 42) has

its roots in antiquity, as is shown, for example, in the invective launched by Seneca against the consul MamerCUS Scaurus, whom he considered unworthy of his post because he drank the menstrual blood of his young slave women. As Dunstan Lowe explains, Seneca's reason for denouncing this practice stems not so much from the existence of a sexual habit widespread at that time (known as *menophilia*) as from the conviction that *cunnilingus* was a dirtier activity than *fellatio*: "throughout antiquity the Greeks and Romans stereotyped women's genitals as repellent to all senses besides touch" (Lowe, 2013 p. 346). Undoubtedly, the reinterpretation of menstrual blood by both Chicago and Emin as "political pollution" immediately calls into play the whole weight of derogatory discourse directed at the female genital organ. And the vagina is thereby empowered through the reorientation of its contaminating capacity. This new power of the vagina and of menstrual blood no longer lies in its reproductive biological potential (Stewart and Strathern, 2002 p. 352) but in a cultural fertility that uses the historical dirtiness of the female genital organ to invert the hierarchies imposed by patriarchal society.

Mako Idemitsu's and Judy Chicago's decision to locate the visualisation of menstrual flow in the context of the bathroom emphasises this notion of the "subversion of the dirty". One of the main social topoi surrounding menstruation is that it always happens inside the bathroom, behind a door which blocks vision and by that very fact limits the effects of the pollution. A factor that has helped to reinforce this eminently masculine perspective is an intensive film and television culture, through which the bathroom has become enshrined as the out-of-frame in which menstrual blood flows in the appropriate and proper sanitary conditions. As Lauren Rosewarne argues, "periods may not actually be done there, but on screen they are frequently experienced there" (Rosewarne, 2012 p. 10). In this sense, the fact that works like *What a Woman Made* and *Menstruation Bathroom* show a partial or complete view of this place that is outside the patriarchal field of vision amounts to literally "opening the door" to allow pollution to transgress the limits of its confinement and be freely exhibited as an alternative to the masculine strategy of "hygienic segregation". For both Idemitsu and Chicago the bathroom is the space that no longer separates visual territories but generates an inclusive, impure gaze.

"FREE BLEEDING" AND "IN-CORPORATION" OF MENSTRUAL FLOW

One of the most vividly remembered moments at the 2001 Michigan Womyn's Music Festival was the protest by the self-titled Red Brigade, in which — as Chris Bobel recalls — about half the participants carried cardboard signs with various slogans

painted in red: “Tampax Evil!”, “Join the Red Revolution”, “We Have Our Own Wings” and “Get Corporations Out of Our Cunts” (Bobel, 2010 p.2). This exercise in performance activism was one of the landmark events in what has come to be called Third-Wave Feminism, which emerged in the early 1990s and marked itself out from the Second Wave of the 1970s by a greater presence of radical activists and their critiques of multinationals in the menstruation sanitary products sector (Stone, n.d. p. 2). Defending the use of remedies less harmful to women’s health during their periods and of free bleeding has turned into a combative viral awareness-raising strategy that has obviously given rise to powerful and highly publicised visualisations of menstrual bleeding. In contrast to the “decorporealised” images of this flow produced by Mako Idemitsu, Judy Chicago and Tracey Emin, free bleeding involves a “corporeal contextualisation” of the blood. Within the strategy of deconstructing the ideal of feminine purity constructed by the patriarchal scopical regime, the visualisation of stains or trickles of blood perverting the ideological whiteness of women’s bodies introduces a greater measure of dirtiness and disquiet.

A famous action in this respect was that of the drummer and feminist Kiran Ghandi, who ran the London marathon in 2015 during her period without wearing a pad or tampon to hide her flow. Photographs of this “challenge” to the hygienic status quo of Western society spread all over the planet, in some cases with a circle around the “stain of shamelessness”. Kiran Ghandi herself acknowledged in her blog that “if there’s one way to transcend oppression, it’s to run a marathon in whatever way you want. On the marathon course, sexism can be beaten” (Kafai, 2016 p. 3). This transgression of the expectations of women’s bodies also lies at the root of the Trophy Wife Barbie project, which the artist Annelies Hofmeyr is currently developing. A collection of photographs shows the Barbie doll in a series of situations that the Western ideal of beauty would consider “anomalous” and “anti-feminine”, prominent among which are those representing a body freed from subjection to the decorum of “invisible blood” and committed to free bleeding.

In 2004 Carlota Berard produced *Aqua permanens*, a performance in which she dances a choreographed piece on a white cloth while her menstrual blood drips over it. Whereas in the cases of Ghandi and Hofmeyr, just mentioned, the visualisation of free bleeding served the general purpose of releasing women from social control over their bodies and granting them an irreducible subjectivity (Bobel and Kissling, 2011 p. 123), with Berard’s choreography the objectives focus on more specific questions. Indeed, *Aqua permanens* has obvious connections with the legendary performance *Vagina Painting* (1965), by Shigeko Kubota. In this seminal action, the Japanese artist

dripped paint over a white canvas from a paint brush tied to her inner thigh. Through this gesture, Kubota was claiming the same artistic authority for the vagina and its fluids as for the penis and semen. There is an obvious reminiscence of the famous photographs of Jackson Pollock athletically pouring his drippings, so identifiable with the sperm expelled by the male sex organ, over a canvas spread out on the floor. The red of the blood that Berard drips onto the white of the cloth involves going a step beyond merely demanding the free flow of menstrual bleeding to endow it with an artistic, and therefore creative, dimension.

CREATIVE AESTHETICISATION OF MENSTRUAL BLEEDING

Attributing a creative capacity to menstrual blood establishes a new framework of representation for female fluids as a means of seeking to overcome the traditional polarisation between the minor role of woman as a mere agent of reproduction and the major role of man as a creator of transcendental experiences. In the words of Sherry B. Ortner, “woman’s body seems to doom her to mere reproduction of life; the male, on the other hand, lacking natural creative functions, must (or has the opportunity to) assert his creativity externally, ‘artificially’, through the medium of technology and symbols. In so doing, he creates relatively lasting, eternal, transcendent objects, while the woman creates only perishables — human beings” (Ortner, 1972 p. 14). The possibility of menstrual blood flowing in a different way from that of a “waste product”, useless, “infertile material”, makes it possible to break the essential knot linking artistic creation to the male genital organ, thereby constructing an alternative aesthetic model. Blood, from this perspective, is no longer limited to expanding in the form of a “stain”, a mere “biological mark”, but rather has the ability to articulate itself linguistically.

The multitude of notable examples in this field of work makes creative aestheticisation of menstrual blood the favoured line of action among current practitioners of menstrual art. Artists such as Petra Paul, Vanessa Tiegs and Zanele Muholi have opted for an eminently painterly model of production that ranges from Paul’s abstract compositions to Muholi’s geometric patterns and includes Tiegs’s more natural floral motifs. In the case of Jacquelyn Rixon and Chen Lingyang, the processes of aestheticising menstrual blood acquire greater complexity, combining painstaking handicraft with three-dimensional sculpturality to achieve a more refined inclusion of the fluid. In *Encrusted Lace* (2009), Rixon brings together menstrual blood and glass beads on antique brocade, showcasing the visceral qualities of blood-staining (Fahs, 2016, p. 109). Lingyang, in turn, in a work like *Twelve Flower Months* (1999-2000), juxtaposes the flower associated with each month

in the Chinese calendar and a mirror reflecting the artist's genitalia with a "mark" of her bleeding. For Lingyang, linking menstrual blood with flowers arose from the experience of spending months in a state of isolation, which led her to focus both on the physical aspects of her identity and on the slightest changes in the living and atmospheric conditions of her surroundings — such as the slow growth of plants (Jinli, 1972 p. 163). Finally, in her well-known photographic series *Red is the Colour* (2009) Ingrid Berthon-Moine reproduces portraits — full-face, like typical passport photos — of twelve women wearing their own menstrual blood as lipstick.

What links all these works is that their "creative management" of bleeding, as well as their consequent normalisation as "artistic material", involve hygienising menstrual flow. The strategies of aestheticisation of the latest menstrual art have purged the various visualisations of blood of that element of dirtiness that made its political empowerment possible. It is one thing to conceive menstruation, in the manner of Carlota Berard, as an other way of painting that defies the monolithic regime of phallocentric painting, and quite another to use blood, as all the latest cases do, in the same terms as traditional paint. Might menstrual art be in danger of letting the transformation of blood into aesthetic material become a new form of invisibility? To what extent might the loss of its polluting power lead to a "representational accommodation", whereby it is permanently deactivated by the restrictions placed on it by canons of beauty? Blood that is excessively "immersed" and "camouflaged" in an aesthetic context could be not so much the fruit of a social and artistic victory as the result of a capitulation disguised as political activism.

CONCLUSIONS

Since the early 70s, feminist art has had, among its priority objectives, endow menstrual blood with visibility and thus challenge the attitude of contempt and asco that patriarchal society has shown towards it. As it has been verified, three have been the strategies used by the artists when transgressing the visual taboo of the menstrual blood:

1. Decorporealised visualisation of bleeding: The motif of bleeding in itself includes women's subjectivity without having to be contextualised in the reality of the body.
2. Free bleeding" and "in-corporation" of menstrual flow: In contrast to the "decorporealised" images of this flow produced by Mako Idemitsu, Judy Chicago and Tracey Emin, free bleeding involves a "corporeal contextualisation" of the blood. Within the strategy of deconstructing the ideal of feminine purity constructed by the patriarchal scopic regime, the visualisation of stains or trickles of

blood perverting the ideological whiteness of women's bodies introduces a greater measure of dirtiness and disquiet.

3. Creative aestheticisation of menstrual bleeding: Blood, from this perspective, is no longer limited to expanding in the form of a "stain", a mere "biological mark", but rather has the ability to articulate itself linguistically.

The contemporary hegemony of this last artistic strategy leads to the question of whether the greater visibility of menstrual blood has been achieved as a result of its aestheticization and at the expense of the loss of its political potential -that is, its capacity to provoke a feeling of asco among the patriarchal gaze.

REFERENCES

- BOBEL C (2010) *New blood: third-wave feminism and the politics of menstruation*. New Brunswick, NJ & London: Rutgers University Press.
- BOBEL C, KISSLING EA (2011) Menstruation matters: introduction to representations of the menstrual cycle. *Women's Studies*, 40: 121-126.
- DYER R (1997) *White*. London & New York: Routledge.
- FAHS B (2011) Sex during menstruation: race, sexual identity, and women's accounts of pleasure and disgust. *Feminism Psychol*, 21(2): 155-178.
- FAHS B (2016) *Out for blood: essays on menstruation and resistance*. Albany: State University of New York.
- HOSKINS J (2002) Introduction: blood mysteries: beyond menstruation as pollution. *Ethnology*, 41(4): 299-301.
- JINLI H (2011) The second sex and contemporary chinese art: a case study on Chen Lingyang's work. In: Wiseman MW, Yuedi L (eds). *Subversive Strategies in Contemporary Chinese Art*. Leiden: Brill, pp 147-169.
- JOHNSTON-ROBLEDO I, CHRISLER JC (2013) The menstrual mark: menstruation as social stigma. *Sex Roles*, 68: 9-18.
- KAFAL S (2016) Re-coding blood: menstruation as activism. *Steam J*, 2: 1-6.
- KISSLING EA (2002) On the rag on screen: menarche in film and television. *Sex Roles*, 46 (1/2): 5-12.
- KRISTEVA J (1982) *Powers of horror: an essay on abjection*. New York: Columbia University Press.
- LAWS S (1990) *Issues of blood: the politics of menstruation*. London: Macmillan.
- LOWE D (2013) Menstruation and Marcus Scaurus. *J Classical As*, 67 (3-4): 343-352.
- ORTNER SB (1972) "Is female to male as nature is to culture?" *Fem Stud*, 1(2): 5-31.
- ROSS K (1999) *Fast cars, clean bodies: decolonization and the reordering of french culture*. Cambridge MA & London: MIT Press.
- ROSEWARNE L (2012) *Periods in pop culture: menstruation in film and television*. Plymouth: Lexington Books.

- SHUTTLE P & RP (1986) *The wise wound: menstruation and everywoman*. London: Harper Collins.
- STEIN E, KIM S (2009) *Flow: the cultural story of menstruation*. New York: St. Martin's Griffin.
- STEWART PJ, STRATHERN A (2002) Power and placement in blood practices. *Ethnology*, 41(4): 349-363.
- STONE A (n.d.) The art of activism: menstruation and media. Available: www.inter-disciplinary.net/critical-issues/wp-content/uploads/2014/04/stonefempaper.pdf
- VALENTI J (2010) *The purity myth: how America's obsession with virginity is hurting young women*. Berkeley: Seal Press.

Face transplantation and the anatomy of facelessness

Suzannah Biernoff

Department of History of Art, Birkbeck, University of London, UK

SUMMARY

Heather Laine Talley locates the still-experimental technique of face transplantation within a contemporary 'disfigurement imaginary' that equates facial difference with social death. This paper extends Talley's account by considering the ideological and affective components of 'facelessness' as a shared cultural idea. The first part of the paper argues that 'facelessness' has a history that links the stigma of facial war injuries in early twentieth century Europe to current assumptions about the horror of disfigurement. The second part of the paper uses Georges Franju's *Les Yeux sans Visage* (*Eyes Without a Face*, 1959) to examine the aesthetics of horror and the uses of cinematic disgust. The paper concludes with a discussion of the 'framing' or management of disgust in the contexts of transplant medicine and anatomical illustration. Face transplantation, it is argued, presents a particular challenge to the 'spare parts' model that has dominated the biomedical approach to organ transfer.

Key words: Face transplantation – Disfigurement – Facelessness – Horror movies – Surrealism – Medical illustration – Disgust – *Les Yeux sans Visage* – Georges Franju – Isabelle Dinoire

INTRODUCTION

Isabelle Dinoire, the world's first face transplant recipient, died in April 2016, eleven years after the controversial surgery that turned her into a medical

celebrity. She was no stranger to the global news media: Getty Images alone has several pages devoted to her on their website, the operation was filmed by British documentary maker Michael Hughes (2006), and international coverage of the story included graphic pre- and post-operative images. Isabelle's death, at the age of 49, was tragic, but not completely unexpected: cancer is just one of the serious risks of long-term anti-rejection treatment (Siemionow and Ozturk, 2012). Despite the redemptive narrative that has dominated the many retellings of her story, disgust has never been far from the surface. Both the circumstances of the injury (caused by the family dog while Dinoire was unconscious) and the pioneering surgery were easily sensationalised. Dinoire herself provided a vivid account in Noëlle Châtelet's 2007 biography, *Le Baiser d'Isabelle* (*Isabelle's Kiss*) (Châtelet, 2007). The description of the inside of her new mouth turns disgust into a symptom of existential crisis:

"And then inside, there was a sensation. It did not belong to me. It was soft. It was atrocious. It was, I do not know whether it is right to say this, it was disgusting. When I think about it, the hardest thing to accept was this: having the inside of the mouth of someone else (p.239)."

The psychological and ethical implications of this new form of reconstructive surgery have been extensively debated since 2004, when the *American Journal of Bioethics* published a special issue on the subject. Its broader cultural significance, however, is only now starting to be discussed (Bluhm and Clendenin, 2009; Bound, 2016; Edkins, 2015; Lafrance, 2010; Talley, 2014a; Pearl, 2017). When

Corresponding author: Dr Suzannah Biernoff. Department of History of Art, Birkbeck, University of London, 43 Gordon Square, London WC1H 0PD, UK.
E-mail: s.biernoff@bbk.ac.uk

I first started thinking about this article, the presence of disgust in these debates seemed easy to explain. In the *Handbook of Emotions*, Paul Rozin, Jonathan Haidt and Clark McCauley identify four categories of disgust: core disgust (primarily linked to food and oral ingestion, but extending to other forms of symbolic incorporation); animal-nature disgust (including reminders of mortality and violations of the body); interpersonal disgust (which serves to maintain social conventions, norms and hierarchies) and moral disgust (where offensive views and behaviour are condemned as 'disgusting') (Rozin et al., 2000). A form of composite-tissue allograft, face transplantation involves the transfer of skin, nerves, blood vessels, muscles and sometimes bone from a cadaverous (brain dead) donor to a live recipient. The donor tissue is literally 'incorporated' into the recipient's body if the transplant succeeds (although the risk of chronic or acute rejection is ever-present) (Rumsey, 2004 p.23). Rozin, Haidt and McCauley's examples of animal-nature disgust are especially pertinent to transplant surgery. They include 'contact with death and corpses,' 'violations of the ideal body "envelope" or exterior form,' 'gore,' 'deformity,' 'strangeness, disease [and] misfortune' (p.641-43).

In spite of its etymology – from the Latin *gustare*, 'to taste' – disgust can be triggered by any of the senses and by objects that are both real and imagined. In Dinoire's account, although the 'atrocious' thing is inside her mouth, what disgusts her is the sensation of her tongue touching the soft inner surface of a mouth that isn't hers: that belongs to a dead woman. William Ian Miller (2005) argues that 'before the word "disgust" entered the English lexicon in the first quarter of the seventeenth century, taste figured distinctly less prominently than foul odors and loathsome sights' (p.335). Today, he contends, 'the qualities of consistency and feel provide the bulk of our lexicon of disgust.' His examples read like a tactile map of the body's interior:

"it is easier to come up with words to describe disgusting sensations when these are moist, viscid, pliable, than when they are dry, free flowing, or hard. For every disgusting scabby or crusty thing there are tens of disgusting oozy, mucky, gooey, slimy, clammy, sticky, tacky, dank, squishy, or filmy things. And even the scabby and the crusty borrow their disgustingness from the fact that they are formed from the coagulation of viscous substances (p.338)".

The problem is that simply cataloguing the disturbing things about face transplantation, or anything else, doesn't get us very far. It collapses the different perspectives on Isabelle's story – her own, that of her medical team, yours, mine – into a single taxonomy of disgust. Focusing exclusively on the phenomenology of disgust, or on the qualities of the disgusting object, also risks overlooking

the relationship between disgust and stigma, between visceral responses and interpersonal effects. Rozin et al. (2000) present a developmental and evolutionary picture of disgust in which it 'expands through animal-nature disgust, interpersonal disgust, and moral disgust' (p.639). What starts out as a defence of the body against real or imagined contamination becomes a symbolic defence of the soul and of civilization (to which we might add ideas of normality and deviance) (p.637, 643-44). In keeping with their culturally inflected, psychosocial model of disgust, this article begins to address the more difficult questions of context and function. How is disfigurement culturally framed in relation to face transplantation? What is the social and imaginative role of disgust? How is aversion evoked, performed and culturally managed, and to what effect?

FACELESSNESS AND THE 'DISFIGUREMENT IMAGINARY'

Face transplantation existed as an idea before it became a medical possibility, and the media coverage of Dinoire's story was shaped by this history (Biernoff, 2018). Modern plastic surgery is often traced back to the sixteenth-century Italian surgeon and maker of noses Gaspare Tagliacozzi (1545-1599). But it is not until the middle of the twentieth century that we find surgical transplantation of the face from one individual to another represented in graphic detail. The example I will focus on here is the first cinematic face transplant, in Georges Franju's *Les Yeux sans Visage* (*Eyes Without a Face*, 1959). For the film historian Joan Hawkins (2000), *Les Yeux sans Visage* belongs in 'a subgenre of mainstream horror films concerned with medical ethics and the birth of the modern clinical method,' alongside more iconic examples like Robert Wise's *The Body Snatcher* (1945), and James Whale's *Frankenstein* (1931) and *The Bride of Frankenstein* (1935) (p.69). During the film's European premiere at the 1960 Edinburgh Film Festival, seven members of the audience reportedly fainted and had to be carried from the auditorium (Durnat, 1967 p.79; Ince, 2005 p 50). Robert Vas began his underwhelmed review for *Sight and Sound* by noting that 'the British press as a whole rejected [*Eyes Without a Face*] out of hand, finding it no more than nauseating' (Vas, 1960). Indeed, it was not until the film's international re-release in 1995 that it acquired critical attention outside France, despite its cult status among fans of classic horror cinema (Pharr, 2008 p.105). In the film, Pierre Brasseur plays Dr Génessier, a renowned surgeon whose daughter Christiane (Edith Scob) has been tragically disfigured in a car accident caused by her father. Aided by his devoted assistant Louise (Alida Valli) the professor performs a series of experimental 'heterografts' in a secret operating theatre in his basement, using the faces

of kidnapped young women to try and restore his daughter's appearance.

The film critic Pauline Kael (1994) recalled seeing the dubbed American version – retitled *The Horror Chamber of Dr Faustus* – in San Francisco in 1963, as part of a Saturday night double bill with George P. Breakston's *The Manster* (1959):

"The theatre, which holds 2646, was so crowded I had trouble finding a seat. Even dubbed, *Eyes Without a Face* ... is austere and elegant. ... It's a symbolist attack on science and the ethics of medicine. ... Even though I thought its intellectual pretensions silly, I couldn't shake off the exquisite, dread images.

But the audience seemed to be reacting to a different movie. They were so noisy the dialogue was inaudible; they talked until the screen gave promise of bloody ghastliness. Then the chatter subsided to rise again in noisy approval of the gory scenes. When a girl in the film seemed about to be mutilated, a young man behind me jumped up and down and shouted encouragement. "Somebody's going to get it," he sang out gleefully. The audience, which was, I'd judge, predominantly between 15 and 25, and at least a third feminine, was ... pleased and excited by the most revolting and obsessive images (p.7-8)".

Les Yeux sans Visage sits uneasily within the medical history of plastic surgery, but as a cultural text it reveals a great deal about popular perceptions of disfigurement and medicine – and the intimate relationship between disgust, horror, curiosity and pleasure. At its core is an idea that has surfaced repeatedly in recent discussions of face transplantation: the idea of facelessness. 'Nothing in the spectrum of human injury, disease and disfigurement compares to the trauma of losing your face,' wrote *Salon* magazine contributor Jon Bowen in one of the early articles on the face transplant race in May 1999. Dinoire described her appearance before the operation as 'monstrous, traumatic, unshowable. [...] It was like science fiction' (Cojean 2007). Part of her jawbone had been exposed as a result of the injury and she wore a surgical mask to cover the wound. 'Was it possible for her to live without a face?' remarked Sylvie Testelin, one of Dinoire's surgeons, following the operation. 'Before she had no life, she scared herself. You can't live like that' (Austin 2006).

The tendency to see severe facial disfigurement as a traumatic loss or horrific absence of face (and by extension, of humanity, or identity) is very common, despite being challenged by evidence that many people with acquired and congenital disfigurements cope well with an unusual appearance. In fact, the severity of disfigurement is not a predictor of difficulties with social interaction or psychological adjustment (Rumsey and Harcourt, 2004 p.86; Partridge, 1990). In her 2014 book *Saving Face: Disfigurement and the Politics of Appearance*, the sociologist Heather Laine Talley (2014b)

uses the term 'disfigurement imaginary' to denote the ideological function of 'disfigurement' as a shared cultural idea. 'Faces,' she argues, 'are treated as objects of intervention based on the meanings attributed to them':

"The experience of facial difference is positioned as inherently horrific, thus reducing a range of human experiences to one of suffering. Second, the disfigurement imaginary naturalizes a "fix-it" response. ... If a bodily variation is thought of as a deeply threatening crisis, then the work of "fixing" that difference carries extraordinary significance' (p.30)".

Echoing Talley's point, the film historian Kate Ince (2005) observes that the plot of *Eyes Without a Face*, 'like a number of horror and science-fiction films before and since, is entirely woven around the idea that to be faceless is to be without a social identity, unviewable by and unacceptable to the world' (p.105-6).

While the language of monstrosity dominates historical accounts of facial disfigurement (Skinner, 2017; Groebner, 2004), 'facelessness' has had particular symbolic currency since 1914. One of the unexpected consequences of modern, mechanized combat, facial injury was often referred to during the First World War as a fate worse than death (Biernoff, 2011; Biernoff, 2017). The surgeon Harold Gilles described the facial casualties arriving back from the Somme in July 1916 as 'men without half their faces; men burned and maimed to the condition of animals' (Bamji, 1996 p 495). In the press, the horror of facial mutilation was countered by the promise that surgical and prosthetic reconstruction could recreate a human appearance. Both the fear of facial injury and the fantasy of perfect repair belong to the modern 'disfigurement imaginary': they perform an ideological function, naturalising stigma and proposing a medical (rather than a social) solution. This conceptual symbiosis of horror and surgical salvation is well illustrated by an article in the *Sunday Herald* from June 1918, describing a visit to the Queen's Hospital in South London, where Gillies worked with the artists Henry Tonks, Daryl Lindsay, Herbert Cole and Sidney Hornswick:

"The room was the museum of the Queen's Hospital at Froggnal for Facial and Jaw Cases. Round it hang a ghastly white array of casts, and a still more dreadful collection of portraits, which show what that ugly phrase "facial and jaw cases" may mean. Sometimes they are quite unimaginable things. Not desolate Ypres itself or the trailing bands of refugees could give more poignant and lasting impression of the ruthlessness of war than this mutilation of the Divine Image.

Any word of description of that little room, indeed, its very existence, would be an unpardonable offence if it were not that the portraits and casts are made to serve a scientific and beneficent purpose, if it were not for the heartening and in-

spiring fact that these horrors always, or nearly always, come right in the end. For the very men who once looked like those casts and portraits have gone out into the world again with faces that stirred no atom of pitying aversion among strangers, and which their children fondled as of old (The loneliest of all Tommies)".

Franju's unsettling 1951 documentary *Hôtel des Invalides* revisits the symbolic wounds of the Great War and other military conflicts, though optimism and patriotism are conspicuously absent. Built in the 1670s by Louis XIV to house 4,000 disabled and elderly war veterans, Les Invalides now contains France's largest collection of military artefacts in the Musée de l'Armée. Chronicling the ghosts of wars past, the 23-minute film includes a lingering frontal shot of a disfigured First World War veteran (Fig.1). Images like this – and the idea of disfigurement as social death – were a lasting legacy of the Great War (Gehrhardt and Jones, 2017), and newly potent in the 1940s and 50s. Like his Surrealist forerunners, however, Franju's aesthetics of horror finds its most artful expression not on the symbolic terrain of the war-damaged male body, but in female form (Lowenstein, 2005 p.18-19; Stich, 1990).

In *Les Yeux sans Visage*, Christiane's body is both a source of dread and its exquisite antidote. Her immaculate hair, mask and costumes – sometimes attributed to Givenchy (Kael, 1994 p.7) – are

a magic casing that protects us from what lies beneath (Fig. 2). For most of the film, her missing face is hidden by a white mask: itself a kind of luminous absence. We see her without it only once, through the eyes of one of her father's victims, Edna Grüber (Juliette Mayniel). Overhearing her father planning the operation with Louise, Christiane secretly visits the white-tiled basement room where two tables are set up on the bare brick floor. Edna lies unconscious on one, her legs fastened by metal clasps. With her back to us, Christiane removes her mask and approaches the unknown girl on the table. Her fingers drift over the still, flawless features, rousing Edna from her ether-induced sleep. The image we see from Edna's groggy point of view is filmed through disfocused lenses (Fig. 3), but it is clear that Christiane's face is not simply disfigured or scarred: it is an open wound.

It is the scene that follows, however, that Vas described as 'sheer physical horror' (Vas, 1960). For a full six minutes we watch (or flinch and look away) as Génessier, assisted by Louise, puts on his mask and gloves, and carefully marks the incision lines on Edna's face. The scalpel works its way around the edges of what is now a living mask, and traces circles around both eyes. Genas-sier's breathing is audible. Beads of sweat appear on his forehead. When the face is finally lifted off, it seems inanimate (and has the unmistakable sheen of plastic), but as Ince comments (Ince, 2005



Fig 1. Georges Franju, *Hôtel des Invalides*, 1951. Author's screenshot.



Fig 2. Georges Franju, *Les Yeux sans Visage*, 1959. Author's screenshot.

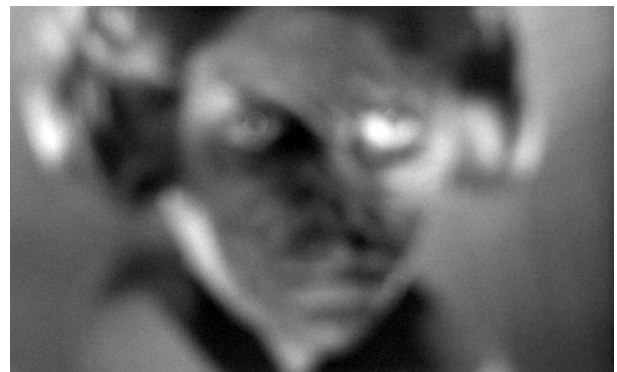


Fig 3. Georges Franju, *Les Yeux sans Visage*, 1959. Author's screenshot.



Fig 4. Georges Franju, *Les Yeux sans Visage*, 1959. Author's screenshot.

p.106), 'there is no doubt here that we are in the realm of the inhuman, "disfigurement" at its most literal and its most extreme ...' (Fig. 4).

THE 'GROSS-OUT' (OR THE AESTHETICS OF DISGUST)

Filmmakers exploit a range of techniques to 'magnify' affect and trigger disgust, including the use of close-ups – which literally bring the disgusting object nearer to the viewer – and somatic identification, which makes us 'feel' the sensations and emotions experienced by a character (Hanich, 2009 p.300). The disgust response, conversely, is one of 'phenomenological distancing' (p. 297). The terms 'revulsion' (from the Latin *revulsio*, 'a pulling back'), 'repulsion' ('to drive back') and 'aversion' ('to turn away from') convey this idea of movement, but distancing can be achieved in other ways too: through laughter or running commentary ('Somebody's going to get it!'), or by focusing on special effects, continuity errors or plot devices. 'We may only feel really comfortable with horror,' writes Stephen King in *Danse Macabre* (King, 2010), his capacious treatise on the horror genre, 'as long as we can see the zipper running up the monster's back' (p.45). Crucially, cinematic disgust relies on a dynamic of attraction and aversion. In his review of *Eyes Without a Face*, Vas (1960) acknowledges the strange compulsion to 'share in the game of hide and seek around a face mask hiding something we fear, but still desire to see'. For Julian Hanich (2009), this 'see-saw process of looking and looking away, of being captivated by the film and disentangling from the fetters of the movie, of immersion and extrication is essential' (p.306). If disgust extinguishes pleasure altogether – or if it overrides intellectual enjoyment or moral provocation – then the film has failed as an aesthetic object.

Disgust is not the sole preserve of horror movies, of course. In his 2009 article on cinematic disgust, Hanich lists comedies (*National Lampoon's Van Wilder*, 2002; *Borat*, 2006), fantasy films (*Lord of the Rings*, 2001; *Pan's Labyrinth*, 2007) and art-house movies (one of his case studies is Pier Paolo Pasolini's *Salò, or the 120 Days of Sodom*, 1975) as well as thrillers and horror films (*The Exorcist*, 1973; *The Texas Chainsaw Massacre*, 1974). Disgusting scenes can be met with laughter and gleeful encouragement, they can shock and sicken, provoke reflection, and cause lasting unease. Hanich suggests that one of the primary functions of cinematic disgust is to 'create a pleasurable "community" of feelings in the face of a disgusting object' (p.306). Even when the experience is unpleasant, in other words, the collective nature of the response can be enjoyable or cathartic. In this respect, watching surgery performed on film, at the movies, is not like being an observer in an

operating theatre – or, for that matter, like Googling images of Dinoire's surgery on your phone or laptop.

For audiences watching *Eyes Without a Face* in the early 1960s, cinematic gore – or the 'gross-out' to use King's term (King, 2010 p.17) – was a new phenomenon (Ince, 2005 p.50). Indeed, *The Encyclopedia of Horror Movies* (Hardy, 1986) credits Franju's film, along with *Psycho* (1960), with 'copaternity of the splatter genre' (p.125). Kael, who wrote disapprovingly of the raucous, irreverent atmosphere of movie theatres (Hawkins, 2000 p.53-64), despaired of the younger generation's appetite for 'shock treatment' (Kael, 1994 pp 10-11). Going to the movies was a social and often noisy affair. Hawkins suggests that audiences of both avant-garde and popular film (including horror cinema) shared a love of loud participation bordering on the carnivalesque (2000 p.59). She also points out that public disruption and shock tactics had been key ingredients of the European avant-garde for decades:

"At a screening of Buñuel's films, for example, the theatre was totally trashed. ... The surrealists also played the role of audience provocateurs themselves, attending events simply in order to disrupt the performance. ... Often they had loud conversations in movie theatres and were known to eat entire meals – complete with fold-up table and white tablecloth – while watching their favorite films (often "low" comedies or horror films) (p.60)".

The film historian Adam Lowenstein (2005) traces Franju's distinctive approach to horror back to Georges Bataille (1897-1962) and the circle of dissident Surrealists active in Paris in the late 1920s (p18-20). Of Buñuel and Dalí's 1929 film *Un Chien Andalou* (which Franju also admired), Bataille had asked: 'how ... can one not see to what extent horror becomes fascinating, and how it alone is brutal enough to break everything that stifles?' (Bataille, 1985 p.19). Franju shared this interest in the poetic and disruptive possibilities of horror (or 'anguish', the term he preferred) and insisted that he used violence as 'a weapon which sensitizes the spectator and which lets him see what's lyric or poetic beyond or above the violence' (Lowenstein, 2005 p.26). Both men rejected the idea that art's role was to elevate or uplift, and instead explored its capacity for de-sublimation. Bataille's journal *Documents*, which ran for 15 issues from 1929-30, featured a serialized 'Dictionary' with entries for (amongst other things): 'Dust,' 'Abattoir,' 'The Mouth,' 'Factory Chimney' and 'Formless'. These short essays, and the accompanying images, offer intriguing parallels to Franju's early documentaries, including his slaughterhouse film, *Le Sang des Bêtes* (Blood of the Beasts, 1949) and *En Passant par la Lorraine* (1950), which juxtaposes the plains of Verdun with scenes of steel production.

It is the entry for 'Formless,' though, that prefigures the erased, mutilated and bandaged faces of

Christiane and Edna. 'Formless,' Bataille insists, cannot be defined; rather it performs a task. It is a 'term that declassifies' (Ades et al., 2006 p.92). The informe unmakes the concepts and categories that order the physical and social world. It renders the legible illegible and the familiar unrecognizable. If it has any similarity to the world of things, it is to that which is 'trampled upon' – spittle, perhaps, or a spider just before you stamp on it. Stephen King (2010) defines terror in similar terms, as an emotion that 'arises from a pervasive sense of disestablishment; that things are in the un-making' (p.22). 'We love and need the concept of monstrosity,' he says, 'because it is a reaffirmation of the order we all crave as human beings ... and let me further suggest that it is not the physical or mental aberration in itself which horrifies us, but rather the lack of order which these aberrations seem to imply' (p.50). In horror movies, monstrosity – and the spectacular 'unmaking' of the victim's body – often serve as a metaphor for a more insidious, existential threat: a threat that will (if there is a happy ending) be resolved in a 'magic moment of reintegration and safety' (p.22).

Anatomy usually refers to the scientific study of the underlying structures of the body, but facelessness, like Bataille's informe, signals a breakdown of structure and meaning. To be 'without a face' is not simply to lack physiognomic identity or to be unrecognizable. It is to transgress the symbolic boundaries on which beliefs about humanity and personhood have historically depended: between animate and inanimate, living and dead, human and non-human, inside and outside. That is not to suggest that the 'human' (or the face) is an immutable category, but rather that it has remarkably persistent features. Therein lies the fascination of disfigurement, as well as its allegorical power. Horror films like *Les Yeux sans Visage* 'tell stories with the face' – to quote Sharrona Pearl – because they are about 'what it means to be human and what it means to be inhuman' (Pearl, 2017 p.85). At the same time, the cinematic trope of facelessness contributes to the stigma of facial difference by implying that a 'normal' appearance is a prerequisite for full humanity and social identity: an idea that has been passionately challenged by disability rights campaigners as well as by historians and sociologists like Pearl and Talley.

DISGUST RE-FRAMED

Drawing on developmental and cross-cultural research, Rozin et al. (2010) note the important role played by disgust in children's socialisation and enculturation. Contrary to Darwin's belief, disgust (as distinct from distaste, which does not involve the fear of contamination) is not found in nonhumans, or in feral humans, and typically develops in childhood between the ages of four and eight (p.645). In order for disgust to perform a so-

cialising or 'civilizing' function, however, it needs to be culturally mobilised and managed. 'Framing,' suggests Rozin, 'is the strategy that keeps potential contamination out of consideration' (p.641). Parental love turns nappy changing into a routine task rather than a repeated encounter with the abject. Death is elaborately framed by medical, legal and religious practices. Medical students become gradually desensitised to the visual, olfactory and tactile manifestations of illness. Most meat-eaters never encounter an abattoir. Like more primitive aversion mechanisms (including food rejection), these institutional, spatial and discursive frames create a physical or cognitive distance between us and the unacceptable object. We either don't encounter the disgusting thing, or we see it transformed into a useful or meaningful object: a meal, a loved one to be mourned, a treatable condition.

Medical representations work in the same way, abstracting useful information about a structure, disease or procedure from the infinite (and potentially disturbing) complexity of human embodiment. Modern medical illustration, in particular, is characterised by its visual cleanliness. In Henry V. Carter's endlessly reproduced illustrations for Henry Gray's *Anatomy of the Human Body*, for example, we see the body 'cleansed of the association with death' (Sappol, 2006 p.46) (Fig. 5). Delineated against a neutral background and with no anecdotal details or aesthetic embellishments, the drawings expertly avoid humanising the corpse. For doctors, anatomists and medical illustrators, overcoming aversion – or in Rozin's terms, learning to re-frame the sensations and objects associated with animal-nature disgust – is part of professional training. Thinking back to his first operation with Harold Gillies, the artist Daryl Lindsay (1958) recalled how difficult it was to 'translate what looked like a mess of flesh and blood into a diagram that a student could understand' (p.62). Tonks (1929), who had qualified as a surgeon be-

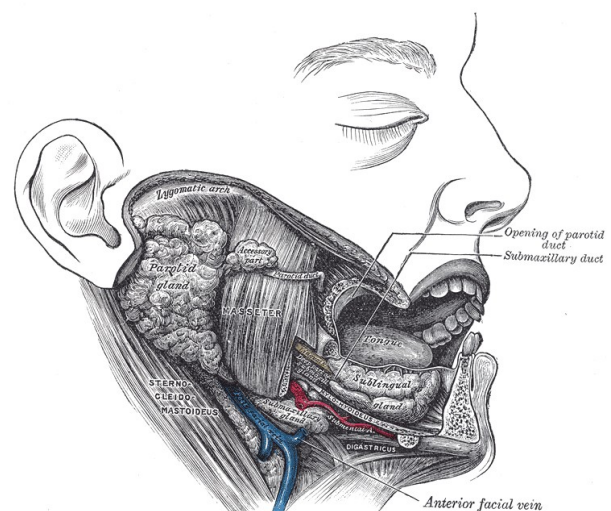


Fig 5. Dissection, showing salivary glands of right side (Fig. 1024), Henry Gray, *Anatomy of the Human Body*.

fore becoming an artist, 'often wondered ... what the figure looks like to anyone who has not this knowledge' (p.230). In both cases, the 'translation' of raw material into manageable and meaningful form required a retraining of the eye as well as the hand.

Like the rapid innovations in facial reconstruction during the First World War, face transplantation is a new technique with profound implications for how we understand the relationship between appearance and identity. Beyond the professional arenas of transplant medicine and bioethics, however, there is no established cultural frame for the transplanted face. Instead, what we find in the media are competing narratives and interpretations. When the risks, benefits and ethics of face transplantation were being discussed around the time of Dinoire's operation, the procedure was sometimes described as a form of extreme makeover, despite the clear message from surgeons that this was not a cosmetic option (La Ferla, 2005). More often, science fiction has shaped perceptions of transplant surgery. John Woo's Hollywood action thriller *Face/Off* (1997), in which John Travolta and Nicolas Cage swap identities, is regularly mentioned in articles about face transplantation (Radford, 2004; Wright, 2002). In marked contrast to both of these frames of reference, the story of Isabelle Dinoire has almost always taken the form melodrama: shocking, awe-inspiring, frequently sensational and emotionally gripping.

Many accounts of the cultural status of organ transplantation focus on public resistance to or unease concerning the practice (Fiedler, 1996), but the historian Susan Lederer (2008) challenges this assumption, pointing to the 'rapid embrace of organ transplantation' in twentieth-century America (p.x). 'In the late nineteenth and early twentieth century' she writes:

"American surgeons and the popular press expressed extraordinary interest in the possibility of restoring lost limbs, appendages, and other body parts. The transplantation of limbs, organs, and tissue was publicly embraced by Americans optimistic that human bodies, like machines, could be disassembled and reassembled with interchangeable parts (p.25)".

It would be a mistake to assume that face transplantation is inevitably disturbing, but there are reasons to think that the face may be less easy to assimilate into a 'spare parts' model than other types of human tissue. Faces have historically been seen as uniquely personal attributes and while that might change in the future (for example with advances in prosthetics), the response to Dinoire's operation underlines just how difficult it is to see the face – or even part of a face – as a thing rather than a person.

In her 2006 study of attitudes towards cadaveric donation in contemporary America, Lesley Sharp identifies a persistent paradox. Donors are, on the

one hand, routinely 'depersonalised' (and must be declared 'legally and medically dead'). Yet the donor is often perceived to live on in the recipient because of a belief that 'transplanted organs can retain the life essence of their donors' (p.4). While the person waiting for an organ is referred to as a patient by hospital staff:

"potential donors, whether declared brain dead or not, are rapidly dehumanized. Procurement staff may even correct one another's language if someone refers to potential donors as "patients" or even as living individuals. Donor kin, however, insist on humanizing and personifying their loved ones throughout donation and procurement: personal names are always used, and a label such as "donor" is abhorrent (p.15)".

If cultural discomfort with organ transfer is normally 'framed' and managed through strategies of depersonalisation, where does this leave Isabelle Dinoire and other face transplant recipients? The intense media interest in Dinoire's story resulted in a style of reporting that was almost pathologically personal. Controversially, the identity of the donor was revealed in the press, along with a photograph that has been widely reproduced. Dinoire, who admitted that her injury occurred during a suicide attempt, found out from journalists that the donor had committed suicide. 'It is strange to know that she wanted to die like me,' she reflected. 'Strange to know that it is she who saved me' (Châtelet, 2007 p.261; Lafrances, 2010 p. 153).

CONCLUSION

In 2002, the US National Library of Medicine put on an exhibition called *Dream Anatomy*. Writing in the accompanying book, Michael Sappol, the curator, pointed to the 'return of the anatomical repressed' in contemporary art (2006 p.61). *Les Yeux sans Visage* and Dinoire's story arguably meet the same need to peer beneath the mask. But the emotions evoked by these encounters with the corporeal repressed – anguish, horror, disgust, fascination, fear – are experienced within specific ideological, social, aesthetic, and institutional contexts. These 'frames' include the trope of facelessness; the conventions of horror cinema (including Franju's aesthetic debt to surrealism); the organ transplant debate; the visual and epistemological priorities of anatomical illustration, and the narrative framing of Dinoire's story in the news media.

'Face transplant "made me human again"' is the headline that appeared in *The Times* in July 2007 (Bremer, 2007). Dinoire's description of her 'rebirth' as a human being in an interview with *Le Monde* (the source for *The Times* feature) is both moving and concerning. It suggests that the history of the face transplant encompasses a constellation of assumptions that go beyond the cost-benefit analyses presented in the medical literature; assumptions about what it is to be human that we

need to both acknowledge and challenge.

ACKNOWLEDGEMENTS

Research for this article was made possible by a Birkbeck College/Wellcome Trust Institutional Strategic Support Fund (ISSF) Mid-Career Award

REFERENCES

- ADES D, BAKER S, BRADLEY F (2006) *Undercover Surrealism: Georges Bataille and Documents*. London: Hayward Gallery / MIT Press.
- AUSTIN N (2006) BBC Horizon, The World's first Face Transplant.
- BAMJI A (1996) Facial surgery: the patient's experience. In: Cecil H, Liddle P (eds). *Facing Armageddon: The First World War Experience*. London: Leo Cooper.
- BATAILLE G (1985) *Visions of excess: selected writings 1927-1939*. Minneapolis: University of Minnesota Press.
- BIERNOFF S (2011) The rhetoric of disfigurement in First World War Britain. *Soc Hist Med*, 24(3): 666-685.
- BIERNOFF S (2017) *Portraits of violence: war and the aesthetics of disfigurement*. Ann Arbor: The University of Michigan Press.
- BIERNOFF S (2018) Theatres of surgery: The cultural pre-history of the face transplant [version 1; referees: 2 approved]. *Wellcome Open Res*, 3(54). Available from: <https://doi.org/10.12688/wellcomeopenres.14558.1>
- BLUHM C, CLENDENIN N (2009) *Someone else's face in the mirror: identity and the new science of face transplants*. Westport, CT: Praeger.
- BOUND ALBERTI F (2016) From face/off to the face race: The case of Isabelle Dinoire and the future of the face transplant. *Med Humanit*, medhum-2016-011113.
- BOWEN J (1999) Gaining face. *Salon* [cited 2017 Mar 21]. Available from: http://www.salon.com/1999/05/19/face_transplants/
- BREMNER C (2007) Face transplant "made me human again". *The Times*, 7 July, p.37.
- CHÂTELET N (2007) *Le Baiser d'Isabelle: l'Aventure de la Première Greffe du Visage*. Paris: Seuil.
- COJEAN A (2007) La première greffée du visage raconte sa nouvelle vie. *Le Monde* [Internet]. Jul 7 [cited 2017 Mar 21]; Available from: http://www.lemonde.fr/societe/article/2007/07/06/la-premiere-greffee-du-visage-raconte-sa-nouvelle-vie_932443_3224.html
- DURGNAT R (1967) *Franju*. London: Studio Vista.
- EDKINS J (2015) Facelessness: another Politics? In: *Face Politics*. London: Routledge, pp 137-180.
- FIEDLER L (1996) Why organ transplant programs do not succeed. In: Youngner SJ, Fox RC, O'Connell LJ (eds). *Organ Transplantation: Meanings and Realities*, pp 56-65.
- GEHRHARDT M, JONES DH (EDS) (2017). Special issue: the legacy of the gueules cassées: from surgery to art. *J War Cult Stud*, 10(1).
- GROEBNER V (2004) *Defaced the visual culture of violence in the late Middle Ages*. New York: Zone Books.
- HANICH J (2009) Dis/liking disgust: the revulsion experience at the movies. *New Rev Film Telev Stud*, 7(3): 293-309.
- HARDY P (1986) *Encyclopedia of Horror Movies*. New York: Harper & Row.
- HAWKINS J (2000) *Cutting edge: art-horror and the horrific avant-garde*. Minneapolis: University of Minnesota Press.
- HUGHES M (2006) *Grefe du Visage: Histoire d'une Première Mondiale*.
- INCE K (2005) *Georges Franju*. Manchester: Manchester University Press.
- KAEL P (1994) *I lost it at the movies: film writings, 1954-1965*. London: Marion Boyars Publishers Ltd.
- KING S (2010) *Danse Macabre*. New York: Simon and Schuster.
- LA FERLA R, SINGER N (2005) The face of the future. *The New York Times*, 6 December [cited 2017 Mar 21]; Available from: http://www.nytimes.com/learning/teachers/featured_articles/20051216friday.html
- LAFRANCE M (2010) "She exists within me": Subjectivity, embodiment and the world's first facial transplant. In: Rudge T, Holmes D (eds). *Abjectly Boundless: Boundaries, Bodies and Health Work*. Farnham, Ashgate, pp 147-161.
- LEDERER SE (2008) *Flesh and Blood: Organ Transplantation and Blood Transfusion in 20th-Century America*. Oxford: Oxford University Press
- LINDSAY D (1958) The Sir Richard Stawell oration. *Med J Aust*, 1(3): 61-65.
- LOWENSTEIN A (2005) *Shocking representation: historical trauma, national cinema, and the modern horror film*. New York: Columbia University Press.
- MILLER WI (2005) Darwin's disgust. In: Howes D (editor). *Empire of the Senses: The Sensual Culture Reader*. Oxford: Berg.
- PARTRIDGE J (1990) *Changing faces: the challenge of facial disfigurement*. London: Penguin.
- PHARR M (2008) The lab and the woods: science and myth in *Les Yeux sans visage*. *Sci Fict Film Telev*, 1 (1): 105-114.
- PEARL S (2017) *Face/On: Face Transplants and the Ethics of the Other*. Chicago: University of Chicago Press.
- RADFORD T (2004) Scientists prepare to turn fiction into fact with first full-face transplant. *The Guardian*, 27 May. [cited 2017 Mar 21]; Available from: <https://www.theguardian.com/world/2004/may/27/highereducation.health>
- ROZIN P, HAIDT J, MCCAULEY CR (2000) Disgust. In: Lewis M, Haviland-Jones JM (eds). *Handbook of Emotions*. New York: Guilford Press, pp 637-653.
- RUMSEY N (2004) Psychological aspects of face transplantation: Read the small print carefully. *Am J Bioeth*, 4(3): 22-25.
- RUMSEY N, HARCOURT D (2004) Body image and

- disfigurement: issues and interventions. *Body Image*, 1 (1): 83-97.
- SAPPOL M (2006) *Dream Anatomy*. Washington, DC: US Department of Health & Human Sciences.
- SHARP LA (2006) *Strange Harvest: Organ Transplants, Denatured Bodies, and the Transformed Self*. Berkeley: University of California Press.
- SIEMIONOW M, OZTURK C (2012) Face transplantation: outcomes, concerns, controversies, and future directions. *J Craniofac Surg*, 23(1): 254-259.
- SKINNER P (2017) *Living with disfigurement in early Medieval Europe*. London: Palgrave.
- STICH S (1990) *Anxious Visions: Surrealist Art*. Berkeley: University Art Museum Berkeley, CA.
- TALLEY HL (2014a) Facing off: debating facial work, constructing a 'vital' intervention. In: *Saving Face: Disfigurement and the Politics of Appearance*. New York: NYU Press, pp 145-178.
- TALLEY HL (2014b) *Saving Face: Disfigurement and the Politics of Appearance*. New York: NYU Press.
- THE LONELIEST OF ALL TOMMIES: THE MAN WHOSE FACE IS SHOT AWAY AND HIDES FROM HIS FRIENDS (1918) *Sunday Herald*, June.
- TONKS H (1929) Notes from "Wander-Years". *Artwork*, 5(20): 213-235.
- VAS R (1960) Review of eyes without a face. *Sight Sound*, 29(2): 92.
- WRIGHT O (2002) Changing faces: the science fiction dilemma. *The Times*, 28; 3. (November).

The faces of disgust. Death masks of famous and infamous

Gorka López de Munain

Centre of Image Studies Sans Soleil, Vitoria-Gasteiz, Spain

SUMMARY

Human faces are not usually objects of disgust. However, this can be diffuse if there are some kind of malformations or if they are masks of dead people. Corpses disgust us not only by reminding us of our mortal condition, but also by their association with immoral acts. This article proposes to analyze the relationship between the bodies and faces of corpses and their reaction with physical and moral disgust.

Key words: Faces of disgust – Moral Disgust – Death masks – Fringe Festival – Corpses – Malformations

DISGUST AND FACE

Regarding disgust, faces move between vague limits, highly labile. The feeling of disgust is not usually linked to human faces, but they can present characteristics that could place them in the sphere of the disgusting. The studies that have been carried out on disgust in fields such as clinical psychology suggest that this feeling which “protects us, since it triggers an avoidant behaviour towards potential sources of disease” (Sandín et al., 2013 p. 20), has been frequently linked to animals that are related to pollution or disease such as spiders, cockroaches and worms (Davey 1991). However, what potential risk are we reacting to when we feel disgusted by a face? What are the limits that define this feeling? What is the link between physical disgust and moral disgust? Addressing these topics from their “limits” will allow us to approach them with an awareness of the fact

that we are working on a subjective and extremely heterogeneous field. Facial casts of disfiguring diseases such as hydrocephaly cause a feeling of rejection and discomfort at first, but it might not be appropriate to describe it as disgust, at least if we are conscious of the nature of these malformations and the personal implications thereof. However, when these examples are displayed as part of the exhibition “Death masks and life masks of the famous and infamous” (Fig. 1) run during the well-known Fringe festival –where masks of killers such as William Burke were mixed with models obtained

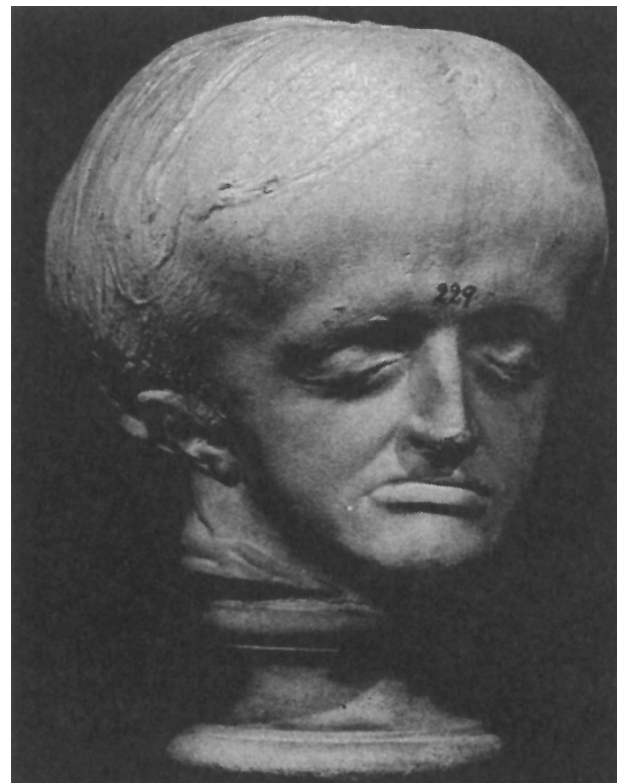


Fig 1. Mask of hydrocephalic adult. Published in: Kaufman MH, McNeil R (1989) «Death masks and life masks at Edinburgh University». *BMJ* : Brit Med J, 298 (6672): 507.

from people with serious malformation—, the setting enables other sorts of interpretations¹. Moreover, the facial plaster casts, because of their direct link with death masks—even if they could have been extracted while alive—, makes us think of death, which introduces some new considerations. Therefore, when approaching these two notions, disgust and the face, it is essential to have in mind the context and the time in which they could be being perceived.

In most of the masks we will see, the negatives were obtained from the face of the dead person, therefore the surface of the positive—when it is made from the original mould—shows all the details in an absolutely reliable way. The result, a dead face cast on plaster or wax, shows a disturbing countenance. There is a *truth* in the obtained cast that is hard to fathom; the faces are not recognisable, as the pressure exerted by the material of the mould and the disfigurements caused by the *rigor mortis* visibly modify the countenance; however, the very characteristics of the technique force us to believe in the *truthfulness* of that similarity, as the mould cannot display something different from what it has been in contact with (López de Munain, 2018). The philosopher and art historian Georges Didi-Huberman showed his fascination towards Adolphe-Victor Geoffroy-Dechaume's magnificent anatomic casts in the following way: "I have never seen that a sculpture—that is to say, a three-dimensional work that has been shaped *per via di levare* from hard materials such as marble or wood—that causes such an effect of carnal shuddering. If that sculpture were to exist, the artist, acting like a metal smith, would have had to make each of the "shuddering points" one by one (...)" (Didi-Huberman, 2015 p. 244).

In the process of casting masks, if the shape is taken from a dead body, we immediately find ourselves in a different field where disgust is in play. If we look at Disgust Scales that have been created by different researchers, we will see that dead bodies and other topics that are related to death have a significant presence: "5. I would go out of my way to avoid walking through a graveyard; 7. It would bother me tremendously to touch a dead body; 19. Your friend's pet cat dies, and you have to pick up the dead body with your bare hands; 21. You see a man with his intestines exposed after an accident; 24. You accidentally touch the ashes of a person who has been cremated"². From the earliest studies, i.e. Aurel Kolnai's work, cadavers have had an intrinsic value with regard to the disgusting, since disgust is "pregnant with death" (Kolnai, 2013)³. Death masks and life masks generate very

different reactions, although in some cases they could be hard to distinguish. In addition to that, as we will see through this study, the limits of the disgusting deeply fluctuate and change depending on the time in history on which we decide to focus, so it is crucial to bear all these factors in mind. In order to understand the different edges that open in this analysis, we will examine the case of Ludwig van Beethoven's face.

In 1812, the sculptor Franz Klein obtained a face mask from the German composer in order to make a bust, a work that is now conserved in the Kunsthistorisches Museum, in Vienna. The cast was copied uncontrolledly, and as a result, the impression could be seen decorating spaces here, there and everywhere in private spaces, auditoriums or memorials, often mixed up with his death mask. Nevertheless, his features, typical of someone who is healthy and in full possession of his faculties, are far from those in his death mask, which was obtained on the 28th of March 1827, two days after the composer died (Fig. 2).

Beethoven's health had always been fragile and he spent his last days in bed, surrounded by his loved ones, tormented by pain and aware that death was getting closer and closer. On the 24th of March, conscious of the fact that he was running out of time, he received the last rites and the communion. Some time afterwards, Anselm Hüttenbrenner, an Austrian composer and friend of Beethoven, would narrate the last hours of the German genius in a noticeably dramatic tone, which was very characteristic of that time: "Beethoven had lain unconscious, the death-rattle in his throat from 3 o'clock until after 5 [...]. When he let his raised hand sink to the bed, his eyes

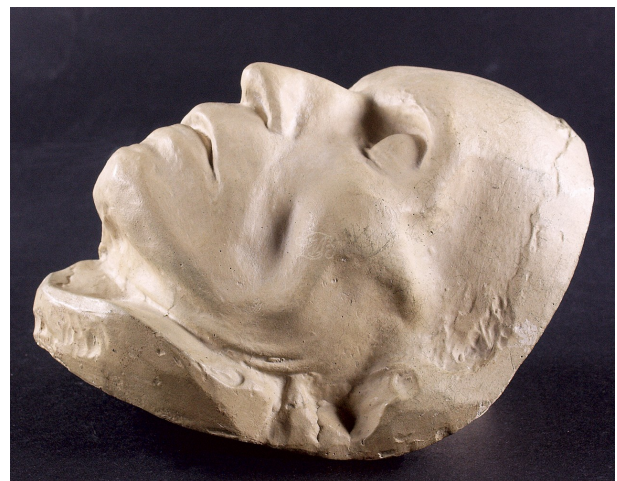


Fig 2. Death mask of Beethoven, copy from the cast of Matthias Ranftl and Josef Danhauser, 1827, Beethoven-Haus, Bonn.

¹The exhibition was run in 1988 by the University of Edinburgh's Anatomy department and the culture ministry of that country and was titled "death masks and life masks of the famous and infamous". See: (Kaufman and McNeil 1989).

²Taken from the Disgust Scale-Revised made by Haidt et al. (1994) and modified by Olatunji et al. (2007).

In a short and lucid text, Alberto Santamaría develops a philosophical approach to disgust wherein he emphasises on the importance of cadavers.

³According to the author, "cadavers represent the archetypes of disgust for various reasons, but, in short, because it represents and symbolises our irremediable fate" (Santamaría, 2011 p. 12).

closed half-way. My right hand held his head, my left pressed his chest. No breath passed his lips, his heart had stopped beating" (Buchet, 1991 p. 351).

The day after his death, when his body lay in the morgue, the Viennese anatomist Johann Wagner performed an autopsy in which some areas of the cranium and the inner ear were intensely operated so as to determine the causes of death. Beethoven's prolonged illness, combined with Wagner's more or less appropriate operations, disfigured Beethoven's face, which acquired a cadaverous countenance. According to Ferdinand Rausch's words, it was "more like a skeleton than a living man" (Benkard, 1929 p. 91). Those disfigurements are visible on his death mask. The mask was finally made on the 28th of March, as proven in the interesting letter that Stephen von Breuning (a friend of Beethoven) sent to Schiller:

"Tomorrow morning a certain Danhauser wants to take a plaster cast of the body; he will be finished in five minutes, or eight at most. Write me to say Yes or No, whether I am to consent. Such casts of great men are often permitted, and if we forbade it our refusal might afterwards be regarded as an encroachment upon the rights of the public. Vienna, March 27, 1827. Breuning. (Benkard, 1929 p. 90)".

Breuning's words' last sentence reveals the importance of these works and how their creation was practically a "right of the public". That is to say, making masks –that would later be spread among admirations– was so popular, that impeding their manufacture would seem strange, and even inappropriate. The mask was made by Matthias Ranftl and Josef Danhauser (1805 – 1845). The latter was a famous Austrian painter who also realised some drawings of Beethoven on his deathbed (Herán, 2002 p. 36). As Ernst Benkard points out in his famous monographic about death masks, the piece was handed over to the library of the Bonn Universität in 1870 during the celebrations of the 100th anniversary of the composer's birth, and later, it was moved to the Beethoven-Haus in Bonn, where it remains to this day (Benkard, 1929 p. 91).

Throughout the account, not even the slightest trace of disgust can be found towards the agonizing countenance that death mask shows. The admiration that his contemporaries felt towards the musician was so great, that the white plaster could arouse nothing but pity for the suffering that the visage expresses. In an article published in the Spanish newspaper ABC in 1927, the journalist thoroughly describes a visit to Beethoven's home in Bonn and highlights that "the tragic mask reflects, with cruel realism, the vestiges of the painful passing away". A radically different tone is employed by Luke A. Fidler in his article for *The Atlantic*, where he describes death masks as something "between a creepy portrait and a contact rel-

ic" (Fidler, 2014). When talking about Beethoven's piece, in line with a comment about how wax figures make him feel, he underlines that "although I'm impressed by wax figures they don't unsettle me the way that Beethoven's jutting lip or sawn-out ears do" (Ibid.). The death mask of the German genius, when seen in two quite distinct contexts of perception, provokes two equally distinct reactions. In one context, far from provoking negative feelings, it sparks admiration (as well as certain amount of pity) for the effigiated person; in the second, however, the distance from the character itself and from the practice of creating commemorative death masks moves the focus to the condition that seems to display the face: agonizing, cadaverous and in an incipient state of putrefaction.

BETWEEN PHYSICAL DISGUST AND MORAL DISGUST

Disgust is an emotional response of revulsion and defensiveness to something potentially dangerous and is, therefore, perfectly applicable to the physical world (feeling disgust at a body that is in state of putrefaction) as well as to cultural environments (feeling disgust at a practice that is considered deplorable). In other words, "the emotion of disgust, which may have evolved to help our omnivorous species figure out what to eat in the physical world, now helps our social species figure out what to do in the cultural world" (Haidt et al., 1997 p. 108). Recently, several studies have been carried out so as to research the full extent of the emotion of disgust that goes from the area of physical protection of the organism towards its relevant role in human morality, with very different analysis and interpretations (Olivera La Rosa and Roselló Mir, 2013). There are those who think that the role of disgust in the moral world should be studied as a rhetoric figure that is often used to reflect outrage or anger (Nabi, 2002). In this study, we do not intend to take part in this extremely interesting debate; our aim is to explore some of these issues by applying them to the use of death masks, in order to provide or suggest new paths for analysis.

To do so, we will take the mask of Jean-Paul Marat as our starting point. Due to the circumstances surrounding his death, we could arrive at conclusions that are rather similar to those in the case of Beethoven; thus, a modern observer could easily feel disgusted if they held a good wax copy on their hands, whereas the same work would arouse completely different emotions in a Jacobin comrade. However, it is a very interesting fact that if a Girondin held the mask on their hands, he would experience a level of moral disgust towards the revolutionary character that would be hard to be provoked in a modern observer. Moral disgust varies depending on the conditions that determine each context and each receptor in the same way as physical disgust.

The French revolutionary's iconic death in his bath tub at the hands of Charlotte Corday in 1793 was preserved for posterity in the representation that was made that same year by Jacques-Louis David. However, the painter idealised that macabre event in such a way that it seemed that Marat had been sleeping and not brutally assassinated. Moreover, the painting does not show any trace of the serious chronic cutaneous condition that he suffered from and used to force him to spend long hours in the bath tub. Recently, it has been found that the painter drew a sketch where a more realistic approach of the event is shown; but, in the end, David decided on the idealised version (Mazeau, 2009). Apparently, the sketch showed an expression that would be similar to the one on the death mask that was made soon after his passing. At this point, the history of masks and their possible influence on subsequent artists such as David becomes dim and complex, so to be able to draw conclusions, it will be essential to observe the se-

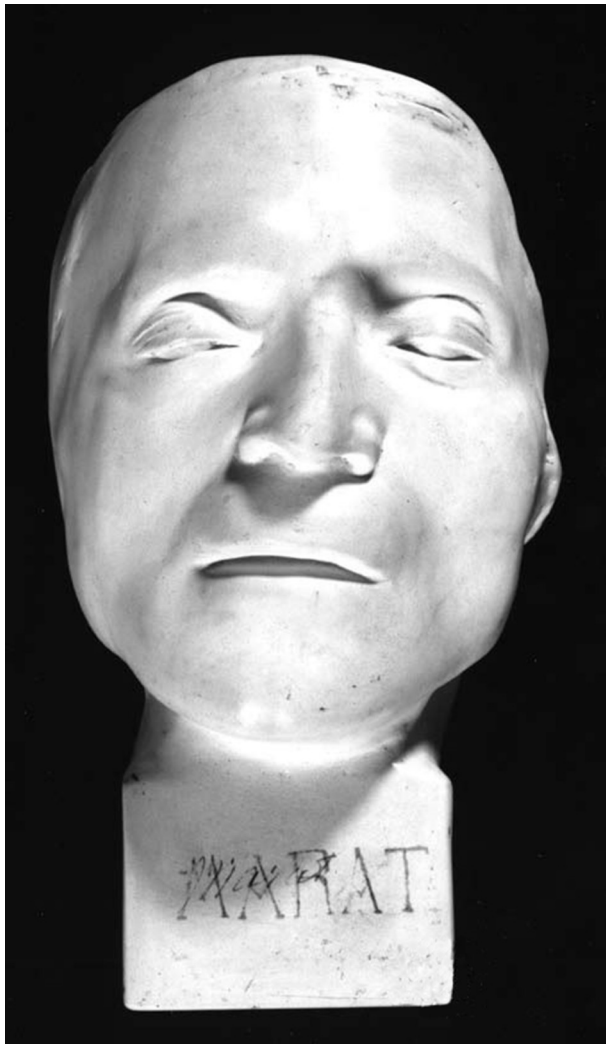


Fig 3. Marie Tussaud, death mask of Marat, 1793, Bibliothèque Municipale, Lyon.

quence of facts very carefully.

After Marat was killed, Marie Tussaud, who had learnt the technique of modelling wax from Philippe Curtius, was taken immediately to the scene of the crime to make a death mask of the deceased (Fig. 3). Marie's biographer Francis Hervé relates that "Madame Tussaud never saw him more until she was fetched by some gens d'armes, who took her to the house of Marat, just after he had been killed by Charlotte Corday, for the purpose of taking a cast from his face. He was still warm, and his bleeding body and the cadaverous aspect of his almost diabolical features presented a picture replete with horror, and Madame Tussaud performed her task under the influence of the most painful emotions" (Hervé, 1838 p.199). The famous scene of Marat's death in his bath tub was reproduced in wax by Marie and the work was exhibited in Curtis's *Salon* with great success. At the beginning, he was a considered success, first as a martyr and an innocent victim of the Revolution, but later, when he fell out of favour, as the perfect example of the Revolution's enemy (Sandberg, 2003). In 1802, when she travelled to England, Tussaud took the figure with her and it became one of the most visited ones, along with the guillotined heads of Jacques-René Hébert, Antoine-Quentin Fouquier-Tinville, Jean-Baptiste Carrier, and Maximilien Robespierre. They were part of her so called "Chamber of horrors" attraction (Pilbeam, 2003 p. 50)⁴.

In the representation made by Marie, the knife can still be seen stabbed into Marat and his face shows the same expression of pain that is visible on his death mask. Whereas, as we mentioned before, David's painting shows Marat in a very different attitude, even though the painter himself contemplated the cadaver a day after being killed, which was in a state of putrefaction caused by the hot July temperatures, and took some brief notes (Pilbeam, 2003 p. 50). Nonetheless, and in spite of the evident differences between Marie's and David's works, she always claimed that the painter had been inspired by her work; David never admitted to it (Junyk, 2008 p. 291). In any case, the links between the two works are more significant than we could notice at first sight, probably on account of the bond of friendship between David and Curtius and the admiration that the French painter felt for the works of the wax sculptor. In fact, David always found that using wax works as models in order to create his art was very interesting, and the staging of this painting inevitably reminds one of the ones that are set to create wax effigies⁵.

Regarding the death masks, we know that at least two moulds directly obtained from faces were used: one of them, the one we have mentioned

⁴Uta Kornmeier has studied the impact that the shows given at Tussaud's exhibitions generated in the society of the nineteenth-century and the political implications that they had to deal with (Kornmeier, 2008).

⁵All these links and the history of Marat's wax effigies are studied in: (Graybill, 2016) (especially in the chapter titled "A Proximate Violence: Madame Tussaud's Chamber of Horrors" that was also previously published in: (Graybill, 2010).

before, was created by Marie Tussaud, and the other one, a work by Claude-André Deseine (1740-1823), who is said to have disinterred the body of Antoinette Gabrielle Danton by order of her husband Georges-Jacques Danton seven days after her death in order to make her death mask and sculpt the bust that is nowadays in the Musée des Beaux-arts de Troyes (Madellin, 1914). Deseine also made a bronze cast of the Marat's mask that is preserved in Lambinet Musée of Versailles⁶. Deseine's cast, together with the one that was made by Tussaud and is conserved in the Bibliothèque Municipale de Lyon⁷, generated a large quantity of derivative works on which Marat's post mortem face was reproduced (Mazeau, 2009 pp 14-17). Marat's mask, perhaps due to the intangible power that contains the shape of the dead face of such a renowned character, demonstrates how political or social changes in different historical times can determine subjective appraisals and interpretations in which disgust, as a visceral emotion, takes its particular role.

PRESERVING FACES OF DISGUST. EMBALMING, CASTS AND TENCHINI'S PROCEDURE

The involvement of moral disgust in the field of physical disgust became much more evident when studies on human face grew in popularity in the 18th and 19th centuries. The death masks of those who had been guillotined or executed for their condemnable conduct were preserved and studied using the methodologies of that time by some phrenologists, criminalists and forensic anthropologists who aimed to delve into theses criminal's nature. Briefly, we will mention some details of the scientific-cultural atmosphere of that time. In the introduction to the Spanish version of the text written by Johann Caspar Lavater (1741-1801) *Arte de conocer los hombres por su fisionomía* (In English: The art of knowing men by the features of their physiognomy) it is said that "the theories of the respectable Gall and Lavater have not only been cultivated by all the French talents, but have also been vulgarised in such a way that there is no well-educated or moderately instructed person in France who is not a trained physiognomist and does not study other people's faces continuously" (Lavater, 1848). Even though in this introduction Lavater and Gall are presented as the ones who exemplify the physiognomic studies, it would be convenient to clarify some aspects. The theologian and philosopher Lavater, with the publication of his *Physiognomische Fragmente* in 1775, laid the foundations of theory and praxis to study hu-

man beings through their appearance, thus revisiting a tradition that dates back to antiquity and that experienced a strong revival during the Renaissance. The physiognomic studies aimed to understand intimate characteristics of people by observing and analysing in detail their external appearance, generally focusing on the face. They deduced all kinds of witticisms, such as that "a well closed mouth, whose lips' edges cannot be seen, predicts a diligent spirit, a lover of tidiness and cleanliness" (Lavater, 1848, 29). Some decades earlier, in 1715, Johann Heinrich Praetorius published his *Breviarium physiognomicum* in Hamburg, where he defined physiognomy as "a brief and clear representation of how to recognise facial expressions and determine someone's inclinations" (cited in: Pogliano, 1993 p. 224).

For its part, phrenology had also been studied to an extent before, but it was in the 19th century when it begun to be intensely discussed. In 1789, the German doctor Franz Joseph Gall published a work called *Schreiben über seinen bereits geendigten Prodomus über die Verrichtungen des Gehirns der Menschen und Thiere*, which would define the basic concepts of phrenology or "physiology of the brain", as it was called at back then. The name phrenology was not coined until 1815, when Thomas Ignatius Maria Forster used it for the first time (van Wyhe, 2004 p.17). In his work, Gall studied the link between the shapes of the craniums and mental capacities by delimiting twenty seven traits that would correspond to certain brain sections. Gall's prominent disciple Johann Spurzheim travelled to the United States in 1832 to spread the phrenological knowledge that had been developed in the European continent. He was received with admiration and enthusiasm and, soon after his visit, institutions such as Boston Phrenological Society were founded (Pogliano, 1993 p. 262)⁸. Within the framework of phrenological practices, facial casts were extremely important, as they allowed for studying the skulls of people who were far away, and dead people; in fact, Gall's studies on death masks, busts or skulls belonging to well-known figures such as Dante or the Marquis de Sade were very famous. In all this, there is an aspect that constantly emerges and whose motive is hard to elucidate: Why were they interested in obtaining masks from dead people, which were often even more appreciated than those obtained from living characters? In connection with this topic, the collector Laurence Hutton paraphrased the following quote from Lavater:

"The dead, and the impressions of the dead, taken in plaster, are no less worthy of observation [than the living faces]. The settled features are

⁶Most probably, Deseine's original work is the model that is preserved in the Musée Carnavalet de Paris. It is believed that it is from there that the collector Laurence Hutton obtained his copy.

⁷The piece belonged to the French doctor and criminologist Alexandre Lacassagne (1843-1924), who possessed a copy of the death mask either because of his fascination with the character or because of his profession; what we do know is that the revolutionary character's mask circulated beyond strictly artistic spheres (Salle, 2009).

⁸For a critical review from a historical point of view, see: (van Wyhe, 2004).

much more prominent than in the living and in the sleeping. What life makes fugitive, death arrests. What was undefinable is defined. All is reduced to its proper level; each trait is in its true proportion, unless excruciating disease or accident have preceded death (Hutton, 1894, XIV)".

Regarding this meeting point between death and phrenology, there is an immensely interesting collection of phrenological casts in the Musée Flaubert et d'histoire de la médecine. Among the works on display in this museum, we will focus on a series of twenty seven pieces modelled in plaster that show the faces of characters that had been executed by guillotine. Although some of them are not in a good state of preservation and information is lacking in some cases, all of them have been dated to between 1838 and 1859. Some faces seem to demonstrate expressions of pain, and such is the case of Charles Beaudouin, a farmer from the north of France who beat his mother in law violently and, subsequently, threw her to the fireplace. He was guillotined for that murder in 1849 (Fig. 4). Other masks, for their part, show the horrors of the guillotine; for example, in an uniden-

tified mask obtained from someone who was executed in 1849, it can be noticed that a first incision cut the lower lip off the individual. The researcher Jean-Claude Vimont, who dedicated important studies to this collection, points out that "it is not easy to explain the origin and the creation of this series, given that not all the information has been preserved, due to the passing of time as well as some disappearances and mutilations" (Vimont, 2009)⁹. Considering that this collection was made up of executed people's masks, we could deduce what made them interesting for the later phrenological studies; although, as Vimont claims, phrenology did not attract much attention in the rest of France at the time when the casts were obtained.

Some famous French murderers can be found in the aforementioned collection, for example, the Fournier, a family that spread terror in Normandy around the middle of 19th century. Their crimes were followed with interest by the local newspapers and left a fascinating saga of reports for posterity. Some of those reports focused their attention on the patriarch of the family, Toussaint Fournier, who worked as a butcher and was not very



Fig 4. Death mask of Charles Beaudouin, 1849, musée Flaubert et d'Histoire de la Médecine, Rouen.



Fig 5. Lorenzo Tenchini, mask of murderer, N° 95 della serie dei delinquenti, 1887, Turin.

⁹A more detailed description of the collection in: (Vimont, 1994). There are also some collections that were created in the context of phrenological studies that focused on individuals with malformations and rare diseases. See (Scotland's Cultural Heritage, 1988).

highly regarded by his neighbours¹⁰. In the renowned multiple murder perpetrated in Saint-Martin-le-Gaillard by the Fourniers in collaboration with Napoléon Godry, the main motive was robbery, although the bloody cruelty used upon the bodies left clear evidence of a brutality that goes beyond the original cause: the victims were murdered using axes and various tools and their heads were crushed; it was a despicable blood-bath (Richard, 1838, 149). Prominent phrenologists such as Félix Voisin, the president of the Société phrénologique de Paris, associated this butchery instinct with what they called “l’homme animal” (Vimont, 2009). This whole group of murderers, forgers, thieves, rapists, etc., whose faces casted in plaster form this macabre collection, constituted a treasure that was extremely coveted by phrenology and criminal anthropology scholars.

But everything that we have presented so far could feel poorly elaborated in comparison with the magnificent creations of Lorenzo Tenchini, whose work was unique for several reasons. The viscosity of the material used in his work and their terrible appearance (some of them were consumed and cadaverous) coupled with the reasons why these characters had been effigiated (they had mainly been murderers, rapists, thieves, swindlers and highwaymen), turns this collection into a unique case to study (Fig. 5). The feeling of disgust regarding death, cadavers or putrefaction, overlaps with the feeling of disgust towards those people’s immoral and condemnable behaviour. The singularity of “Tenchini’s procedure” when conceiving masks is highlighted for the first time in the magnificent monograph published by Roberto Toni, Elena Bassi, Silvano Montaldo and Alessandro Porro. Tenchini’s works were not reproducible objects or similar to what we have seen so far regarding death masks. Based on studies carried out through CT and X-ray scans, these masks have a plaster filling on the inside that resembles the skull, then, the skin of the individual is extended on the plaster support conserving some muscle groups, and a wax layer of variable thickness gives the final touch to the ensemble (Toni et al., 2016 p. 24). Therefore, we are faced with an extraordinary precedent of facial reconstruction and, also, of facial transplants on inorganic supports.

The complex and unusual techniques created by Tenchini could be considered to be the highest point of embalming processes that employ wax, whose first documented uses were in the Middle Age, even though, as we will see below, there have been essential differences over the years. Regarding Western Europe¹¹, Louis VIII’s funeral,

which took place in 1226, is usually presented as the first known and documented case of embalming that employs wax. The chronicler Matthieu Paris (c. 1200-1256) described the process superficially: “Regarding the body of the deceased king, they embalmed it using a copious amount of salt; they deposited the entrails in Montpensier Abbey and they gave orders that the rest of the body had to be wrapped in waxed bands and cattle leather. The body remained under the surveillance guaranteed by the abbey”, cited in: (Olariu, 2014 p.109). Once that the body was covered in wax bands, eviscerated and wrapped in animal leather, it was carried to Paris, where the funeral would take place on the 15th of November, seven days after the death of the monarch. From what we can deduct from the details described in the chronicle, the face and the arms remained exposed to the view of those who attended the ceremony, following a trend that was beginning to prevail in the courts at that time (Ariès, 2000, 137 ff.). The situation required the improvement of the embalming process, which was still rather rudimentary, so that the decomposition of the bodies did not pose an obstacle when celebrating funerals (Ariès, 2011, 401 ff). Both embalming and eviscerating were common methods in France in the century XVII¹², as shown in the following testament from 1652:

“It is my wish and order that, twenty four hours after my death, my body be opened, embalmed and introduced in a lead coffin to subsequently be taken, in the event that I should die in this city, to the monastery of the R. F. Dominicans [...] and be placed next to the heart of my beloved former wife [who had been embalmed] and conserved for fifteen days or three weeks, if possible, before everything is taken to my church in Courson. There, they will both be exposed again in my chapel mausoleum (Ariès, 2011 p. 402)”.

Some of the aforementioned embalming processes focus on the preservation of the body or certain viscera such as heart; putting the face aside. Facial reconstruction for subsequent exhibition will be exceptionally found in the embalming of Edward I of England, who died in 1307. His body, as becomes evident from the examination carried out by the Society of Antiquaries of London in 1774, was covered in thin waxed bands that kept perfect body proportions, as if it were “a second epidermis” (Olariu, 2014 p.149). However, a very novel system was used for preserving his face: it consisted of a very thin layer of wax placed on a textile support that, when applied to the face, would allow its features to be reproduced faithfully. To complete the work, the face would later have

¹⁰The account of the events and the trial are narrated in (Richard, 1838).

¹¹To study the possible influence from the Byzantine wax embalming techniques, see (Olariu, 2014, 103ff.)

¹²However, there are also important testimonies in which embalming has been rejected (Ariès, 2011 p. 403).

makeup applied. This same technique can be observed in the uncorrupted bodies of some saints that are still preserved in some of our churches. Nevertheless, in these cases, we can see that they aimed to preserve the individual's facial features without performing a "facial transplant", a technique that is used by Tenchini and the reason why his work is so unique.

Thus, as we can see, throughout history there have been two very different procedures to preserve and duplicate post-mortem faces. On the one hand, we have the moulding techniques employed to create death masks and, also, to create funeral effigies that would replace the corpse¹³. These figures, because of their materials' non-ephemeral and incorruptible nature, allowed for a different ceremony, more prolonged and more sophisticated than the ones that could have been performed with the deceased present¹⁴. Facial casts were used to transfer the face of the cadaver on the face of the effigy, with no need to resort to the skin or any other organic element of the departed. A famous case is that of the effigy belonging to Henry VII of England, which is partially conserved in Westminster Abbey, whose face does not correspond to the face of a dead person, in fact, imitates that of a living person—even though, the model employed to create the effigy was his death mask (Chrimes, 1972 p. 334)—. It should be pointed out that the King's effigy was a mannequin that, when it was being utilised, received the treatment that the King used to be given when alive; therefore, its recreated face, was the King's face. Although their uses and contexts are very different, there is a subtle and interesting link between the aforementioned works and the facial reconstructions carried out during World War I, where many combatants experienced severe facial deformations as a result of the artillery that became increasingly devastating as the war progressed. With the intention of partly reducing the rawness of the deformations, a new medical-artistic practice emerged: it consisted of making partial masks that would cover the mutilation and, to the extent possible, restore the appearance of the original face¹⁵.

On the other hand, we have Tenchini's work, which has a completely different nature, since the duplication of the post mortem face (which was one-of-a-kind) that was made using the skin of the dead person. On top of that, and this might be the key issue, his purpose was to study the behaviour of the individuals in connection with the criminal anthropology studies popularised by Cesare Lombroso, although, as we will see later, some other very important aspects must be taken into account

to fully understand his work. "It thus seems as though the masks were created in order to be displayed and for classification purposes, as means to visually distinguish different types of aberrant behaviour or crimes, each ascribed to a specific subject: a corrupter, swindler, forger [...]" (Toni et al., 2016 p. 23). Therefore, these masks, which were exhibited in an unconventional way by placing them on purple cushions, were used for studying the faces of the criminals, as well as for examining the distinctive anatomical features of the human brain, which was also preserved following the techniques of Carlo Giacomini. In any case, it is important to point out that Tenchini had a partly critical attitude towards those practices and took into account the revisionist positions that Giacomini was publishing at that time, as it can be observed in his monographs about the *Cervelli di delinquenti* published between 1885 y 1895: "[...] Benedikt's fundamental idea that the criminal brain corresponds to a characteristic anatomical type [...] finds no support. In this, my research concurs with those recently conducted by Flesch, Giacomini, Rüdinger and others, who are presently concerned with the subject. However, I found that anomalies were frequently and variously manifest in criminal brains, in greater proportion than in those of law-abiding men, which were examined for comparison" (Toni et al., 2016 p.35).

CONCLUSIONS

In the previous pages, we have seen that disgust, death and faces have been interconnected throughout history in very different ways and have evoked equally various sensibilities. Of all the different ways to approach the disgusting, we have taken death and cadavers as central axis of our study, conscious that it is a "phenomenon that is enormously slippery, and somehow, boundless" (Santamaría, 2012 p.132). In fact, the feeling of disgust regarding death varies considerably depending on which context we focus our attention. For example, Philippe Ariès, enumerates the beneficial properties of cadavers: "cadavers' sweat is good for haemorrhoids and "excrescences"; the contact with the cadaver's hand, rubbing the cadaver's hand on the sick part of your body, can cure you, as happened with that dropsical woman who caressed her belly with the hand of a cadaver that was still warm [...]. In the list of beneficial properties of cadavers, we can even find an aphrodisiac concoction that is made up of the scorched bones of happy spouses and dead lovers" (Ariès, 2011 p. 397ff.). As can be seen, all type of ad-

¹³A similar method, although with some different aspects, can be found in the special case of the Italian *boti* (votes in Florentine dialect). One of the first experts highlighting the importance of these works was Aby Warburg, who, in 1902, wrote an article about portraits and Florentine bourgeoisie in which some clues are provided (Warburg, 2005). An essential work to study these figures is: (Schlosser, 1997)

¹⁴The notion of two bodies, focusing specifically on kings, was masterfully explained in: (Kantorowicz, 1985). To approach the topic from a more extensive point of view, see: (Gondra Aguirre et al., 2014)

¹⁵To see an extraordinary approach to the facial reconstruction cases in World War I and to disfigurements in general: (Biernoff, 2017).

vantages could be obtained from cadavers, although there were also potions and concoctions designated to cause negative effect. In this case, there is not a trace of the disgust that cadavers and dead have frequently provoked in other historical contexts¹⁶, which is demonstrated by the incorporation of these two elements into the aforementioned Disgust Scales.

But a cadaver can also cause the emotion of moral disgust: disgust towards the dead individual who was morally reprehensible and whose face is captured in various formats to study and identify the physiognomic elements that could explain their deviant conduct (see Rouen's masks or Tenchini's works). It is extraordinarily interesting to see the way in which the disgust towards cadavers was consciously utilised and redirected to foment a moral lesson that would become of major importance. Ernst Friedrich's publication *Krieg dem Kriege!*, released in 1924, collected a series of texts, visual materials of diverse origins and extremely striking war pictures –cadavers piled up in trenches, people with all types of mutilations, foregrounds of disfigured faces, etc.– with the firm intention to raise awareness of the terrible consequences of war within the population. Shortly after, this publication became a museum (Antikriegsmuseum), which was also founded by Friedrich in Berlin in 1925 in order to spread his anti-war message. The book, the museum and the meetings and conferences that were organised in the museum were part of a thorough work that aimed at being pedagogical and creating spaces for debate and reflection (Dekel and Katriel, 2015 pp.73-75). In this particular context, the emotion of disgust, the rejection that was caused by the photographs of violently mutilated people, was consciously and deliberately utilised to mobilise civilian population and prevent the recurrence of such atrocities.

It is somehow paradoxical then, that the aforementioned facial masks, the ones that were used to cover the faces that had been disfigured during World War I, sought to avoid the disgust that the mutilations aroused among their fellow citizens. Maimed faces could be used as a mobilising element, but could also lead to stigma and social condemnation. The reports of that time pointed out the advantages of these facial prosthesis, which allegedly had “magical results [...] enable the owner to go out into the world again without shrinking” (Biernoff, 2017 p. 80). Nevertheless, the prosthesis would end up being a remainder of war and would make it very difficult for them to overcome their trauma: their new face-mask was also the face of the disasters of war (Feo, 2007). Therefore,

the significance of disgust is hard to pin down, impossible to delimit or define in a precise way. Disgust is an emotion that can be described as “an alteration of the stomach caused by revulsion directed to something that provoke vomit” (Real Academia Española), but it can also stir up our feelings and make us take sides in political settings. Likewise, we can feel disgust towards a condemnable behaviour or towards the person who exhibits it. Faces of disgust show multiple faces: they can be precise and full of details, as in death masks, or, on the contrary, they can be dim, imprecise and deformed, as the disfigured faces in the pages of Ernst Friedrich's book.

REFERENCES

- ARIÈS P (2000) Historia de la muerte en Occidente. Desde la Edad Media hasta nuestros días. Barcelona: Acantilado.
- ARIÈS P (2011) El hombre ante la muerte. Madrid: Taurus.
- BENKARD E (1929) Undying Faces. A Collection of Death Masks with a Note of Georg Kolbe. London: Published by Leonard and Virginia Woolf at the Hogarth Press.
- BIERNOFF S (2017) Portraits of violence. war and the aesthetics of disfigurement. Ann Arbor: University of Michigan Press.
- BUCHET E (1991) Beethoven: leyenda y realidad. Madrid: Ediciones Rialp.
- CHRMES SB (1972) Henry VII. Berkeley and Los Angeles: University of California Press.
- DAVRY CL (1991) Characteristics of individuals with fear of spiders. Anxiety Research, 4(4): 299-314.
- DEKEL I, KATRIEL T (2015) Krieg Dem Kriege: The Anti-War Museum in Berlin as a multilayered site of memory. In: Cultural Memories of Nonviolent Struggles, pp 71-90. Palgrave Macmillan Memory Studies. London: Palgrave Macmillan, London.
- DIDI-HUBERMAN G (2015) Fasma. Ensayos sobre la aparición 1. Santander: Shangrila.
- FEO K (2007) Invisibility: memory, masks and masculinities in the Great War. J Design History, 20 (1): 17-27.
- FIDLER LA (2014) Impressions from the Face of a Corpse. The Atlantic, 30 May. Available: <https://www.theatlantic.com/technology/archive/2014/05/impressions-from-the-face-of-a-corpse/371772/>.
- GONDRA A, DE ANGELIS M, LÓPEZ DE MUNAIN G, VIVES-FERRÁNDIZ L (2014) Cuando despertó, el elefante todavía estaba ahí. La imagen del Rey en la Cultura Visual 2.0. Barcelona: Sans Soleil Ediciones.

¹⁶Baudelaire's poem *A Carcass* is another noted example of the link between humans and cadavers. His extremely explicit allusions to the cadaver and putrefaction condemned him to marginal spheres, which demonstrates the general disapproval at the topic at that time. As Santamaría pointed out “Baudelaire was considered an immoral poet for more than a century, a reading for depraved people that those in the moral order could only handle with tweezers while holding their nose” (Santamaría, 2012 p. 135).

- GRAYBILL L (2010) A Proximate Violence: Madame Tussaud's Chamber of Horrors. Nineteenth-Century Art Worldwide. A journal of nineteenth-century visual culture 9(2). <http://www.19thc-artworldwide.org/index.php/autumn10/a-proximate-violence>.
- GRAYBILL L (2016) The Visual Culture of Violence after the French Revolution. London and New York: Routledge.
- HAIDT J, MCCAULEY C, ROZIN P (1994) Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. Personality and Individual Differences, 16 (5): 701-713.
- HERÁN E (2002) Le dernier portrait ou la belle mort. In: Herán E (ed.) Le Dernier Portrait, pp 25-94. Paris: RMN.
- HERVÉ F (1838) Madame Tussaud's memoirs and reminiscences of France, forming an abridged History of the French Revolution. London: Saunders and Otley.
- HUTTON L (1894). Portraits in plaster, from the collection of Laurence Hutton. New York: Harper & Brothers.
- JUNYK I (2008) Spectacles of virtue: Classicism, waxworks and the festivals of the French Revolution. Early Popular Visual Culture, 6 (3): 281-304.
- KANTOROWICZ EH (1985) Los dos cuerpos del rey: un estudio de teología política medieval. Madrid: Alianza.
- KAUFMAN MH, MCNEIL R (1989) Death masks and life masks at Edinburgh University. BMJ : Brit Med J, 298 (6672): 506-507.
- KOLNAI A (2013) On disgust. Chicago and La Salle: Open Court.
- KORNMEIER U (2008) Almost alive. the spectacle of verisimilitude in Madame Tussaud's waxworks. In: Panzanelli R (ed.) Ephemeral Bodies: Wax Sculpture and the Human Figure, pp 67-81. Los Ángeles: Getty Publications.
- LAVATER JC (1848) Lavater de hombres, ó Arte de conocer los hombres por su fisonomía: aumentado con un resumen de la vida de Lavater y del Dr. Gall. Barcelona: Imprenta de Antonio Berdeguer.
- LÓPEZ DE MUNAIN (2018) Máscaras mortuorias. Historia del rostro ante la muerte. Vitoria-Gasteiz: Sans Soleil Ediciones.
- MADELLIN L (1914) Danton. Paris: Libraire Hachette.
- MAZEAU G (2009) Corday contre Marat. Deux siècles d'images. Versailles: Éditions Artlys.
- NABI RL (2002) The theoretical versus the lay meaning of disgust: Implications for emotion research. Cognition and Emotion, 16 (5): 695-703.
- OLARIU D (2014) La genèse de la représentation ressemblante de l'homme. Reconsidérations du portrait à partir du XIII siècle. Bern: Peter Lang.
- OLATUNJI BO et al. (2007) The Disgust Scale: item analysis, factor structure, and suggestions for refinement. Psychological Assessment, 19 (3): 281-297.
- OLIVERA LA ROSA A, ROSELLÓ J (2013) On the relationships between disgust and morality: a critical review. Psicothema, 25(2): 222-226.
- PILBEAM P (2003) Madame Tussaud and the History of Waxworks. London: Hambledon and London.
- POGLIANO C (1993) Entre forme et fonction: une nouvelle science de l'homme. In: Clair J (ed.) L'âme au corps: arts et sciences 1793-1993, pp 238-265. Paris: Gallimard / Electra.
- RICHARD CH (1838) Chronique. Cour d'Assises de la Seine-Inférieure. Assassinats de Douvrend, Saint-Martin-Le-Gaillard et Saint Pierre-Des-Jonquières. Revue de Rouen et de la Normandie, pp 148-180.
- SALLE M (2009) L'avvers d'une Belle Époque. Genre et altérité dans les pratiques et les discours d'Alexandre Lacassagne, médecin lyonnais (1843-1924). Lyon: Université Lumière Lyon 2.
- SANDBERG MB (2003) Living pictures, missing persons: mannequins, museums, and modernity. Princeton: Princeton University Press.
- SANDÍN B, VALIENTE RM, CHOROT P, SAN-TED MA, PINEDA D (2013) Dimensiones de sensibilidad al asco y predicción diferencial de los síntomas fóbicos. Revista de Psicopatología y Psicología Clínica, 18(1): 19-30.
- SANTAMARÍA A (2011) El arte de la carroña. Una arqueología estética del asco. Conferencias y discursos. Santander: Real Sociedad Menéndez Pelayo.
- SANTAMARÍA A (2012) El baño. Una breve historia (estética) de lo repugnante. En Santamaría A et al. (eds). Los nuevos inquilinos: ensayos para un mundo pendiente, pp 113-143. Barcelona: Ariel.
- SCHLOSSER J (1997) Histoire du portrait en cire. Paris: Macula.
- SCOTLAND'S CULTURAL HERITAGE (1988) Death masks and Life masks of the famous and infamous: [from the collection in the University of Edinburgh Department of Anatomy] [exhibition catalogue]. Edinburgh: Scotland's Cultural Heritage.
- TONI R et al (2016) Lorenzo Tenchini and his masks. An anatomical clinical collection of the late 19th century at the Universities of Parma and Turin. Lorenzo Tenchini e le sue maschere. Una collezione anatomica clinica di fine Ottocento tra le Università di Parma e Torino. Milano: Skira.
- VIMONT JC (1994) Phrénologie rouennaise : les collections retrouvées. Bulletin de la société libre d'émulation de la Seine-Maritime, pp 39-58.
- VIMONT JC (2009) Phrénologie à Rouen, les moulages du musée Flaubert d'histoire de la médecine. Criminocorpus (blog). 24 March. Available: <http://criminocorpus.hypotheses.org/4330>.
- WARBURG A (2005) El arte del retrato y la burguesía florentina. Domenico Ghirlandaio en Santa Trinità. Los retratos de Lorenzo de Medici y su familia. In: El renacimiento del paganismo:

Aportaciones a la historia cultural del Renacimiento Europeo. Madrid: Alianza Editorial.

WYHE J (2004) Phrenology and the origins of Victorian scientific naturalism. Aldershot: Ashgate.

“A Weight of Carrion Flesh”: Measuring Disgust, Shakespearean Mimesis

Zenón Luis-Martínez

Department of English, University of Huelva, Huelva, Spain

SUMMARY

The present article argues that a Shakespearean poetics of disgust unveils a deeper concern in his work with the moral and social limits of the emotions. The essay first looks into a well-known treatise on physiology and psychology, Thomas Wright's *The Passions of the Minde in Generall* (1601, 1604), in relation to Renaissance theories of poetry and Shakespeare's figurations of disgust in *Hamlet* (1601), *King Lear* (1604), *The Winter's Tale* (1611) and *Timon of Athens* (1607). Its aim is to explore the capacity of metaphors and tropes, in both medical and poetic discourse, to test affective intensity, as measuring the passions was considered a necessary condition for moral and social well-being. In Shakespeare's plays the moral dimension of disgust is often put to question by the aesthetic element inherent in poetic mimesis, which tends to depict the disgusting as a source of pleasure. The essay's second part turns to *The Merchant of Venice* (1596) to assess, through the trajectories of disgust that sustain the rivalry between the merchant Antonio and the moneylender Shylock, a second notion of mimesis: the envious emulation of others' ways of feeling that cultural theorists like René Girard (1991) have signposted as the core of Shakespeare's modernity. In broader terms, this study points to the centrality of the these two notions of mimesis for an understanding of the early modern phenomenology of the emotions.

Key words: Disgust – Desire – Passions in literature – Mimesis – Early modern English literature – Early modern psychology and physiology – Wright, Thomas (1560–1623) – *The Passions of the Minde in Generall* (1601, 1604) Shakespeare, William (1564–1616) – *Hamlet* (1601) – *King Lear* (1604), *The Winter's Tale* (1611) – *Timon of Athens* (1607) – *The Merchant of Venice* (1596)

INTRODUCTION

The coincidences and interrelations between the languages with which medicine, moral philosophy and literature represented the early modern passions has elicited recent scholarly interest (Schoenfeldt, 1999; Paster, 2004; Craik and Pollard, 2013). The highly figurative rhetoric shared by these discourses underlies this essay's focus on disgust in the work of William Shakespeare. In adding to former efforts to historicize this emotion before the term came of use or as it was beginning to appear (Miller, 1997; Robinson, 2014; Eschenbaum and Correll, 2016; Bourn and Bourn, 2018), it subscribes to William Miller's acknowledgement of disgust's "powerful image-generating capacities and the important role it plays in organizing and internalizing many of our attitudes toward the moral, social, and political domains" (1997: 18). It argues specifically that a Shakespearean poetics of disgust unveils a broader concern in his work with the moral and social limits of the passions. The essay's first part looks into a well-known treatise on human affect, Thomas Wright's *The Passions of the Minde in Generall* (1601, 1604), in relation to Renaissance theories of poetry and Shake-

Corresponding author: Zenón Luis-Martínez. Department of English, University of Huelva, Campus de El Carmen, Pabellón 11 Alto, 21071 Huelva, Spain.
E-mail: zenon.luis@dfing.uhu.es

Shakespeare's figurations of disgust in *Hamlet* (1601), *King Lear* (1604), *The Winter's Tale* (1611) and *Timon of Athens* (1607). Its aim is to explore the capacity of metaphors and tropes to test affective intensity, as measuring the passions was considered a necessary condition for moral and social well-being. Yet measuring, a term that for us involves sophisticated techniques of quantification, is a problematic notion when it relies primarily on figurative language. Often in Shakespeare's plays the moral dimension of disgust is put to question by the aesthetic element inherent in poetic mimesis, which tends to depict the disgusting as a source of pleasure. The essay's second part turns to *The Merchant of Venice* (1596) to assess, through the trajectories of disgust that sustain the rivalry between the merchant Antonio and the moneylender Shylock, a second notion of mimesis: the envious emulation of others' ways of feeling that theorists like René Girard (1991) have signposted as the core of Shakespeare's modernity. In its Shakespearean form, this mimetic modality lays open questions such as who is, and who is not, entitled to feel disgust and to exert its moral power. In broader terms, this study points to the centrality of these forms of mimesis for an early modern phenomenology of the emotions.

THE SHAKESPEAREAN ASTROLABE: FIGURING THE PASSIONS

"Men had neede of an Astrolabe alwayes, to see in what height and elevation his affections are" (Wright, 1604: B3v). This sentence belongs to the first chapter of *The Passions of the Minde in Generall* (1604), the second edition of a treatise on the essence, causes, effects, and means to detect, to control and to move the passions, written by English controversialist Jesuit Thomas Wright (1560–1623). Read out of context, it elicits two ludicrous queries that the present essay will attempt to transform into respectable research questions. The first is how or why an astrolabe could be used to measure the passions. The answer demands that we invoke a principle that present-day scholarship sees as a potent cultural trope of the past, but that the early modern world was only beginning to disregard as a mere fiction: the human self is a microcosmos, a universe in miniature (Bamborough, 1952). An astrolabe would aid us—figuratively—to calculate the position and height, as well as to measure the inclination of our starlike "affections"—a word that, beside "passions" and "motions", form the early modern English semantic field of what we prefer to call the emotions. Analogy and metaphor facilitate a conception of our inner selves as measurable spaces, and their passions as chartable accidents in a manner that Duke Theseus remarkably depicts in the speech opening the last act of Shakespeare's *A Midsummer Night's Dream* (1595):

And as imagination bodies forth
The forms of things unknown, the poet's pen
Turns them to shapes, and gives to airy nothing
A local habitation and a name. (5.1.14–17)

Words name and map the unknown in ways that make us think of Wright's imagined astrolabe: after all, the "shaping fantasies" (5.1.5) that Duke Theseus invokes in this speech are the lover's passionate vagaries. Words in science and poetry—Wright and Shakespeare write at the temporal threshold of the Baconian project extricating one from the other—are a most potent gauge of the complexities of reality.

Yet what should we want to measure the passions for? This second question lends itself less easily to probing, unless Wright's sentence is supplied in full: "Men had neede of an Astrolabe alwayes, to see in what height and elevation his affections are, lest, by casting forth a sparke of fire, his gun-powdred minde of a sodayne be inflamed" (Wright, 1604: B3v, my emphasis). Measuring the intensity of one's passions can prevent the destructive inflammation of our minds. This prevention is medical as well as moral. But, in the absence of the mind's astrolabe, metaphors must supply the diagnosis: the mind is a gunpowder cask in risk of explosion caused by a flame-like stimulus lit in the humoural body. One may resort again to Shakespeare, and recall Hamlet's Homeric imagining of Achilles's son, Pyrrhus, and his slaying of the Trojan king: "Roasted in wrath and fire, / With eyes like carbuncles, the hellish Pyrrhus / Old grandsire Priam seeks" (*Hamlet* 2.2.461–64). Shakespeare's roasting furnaces and Wright's inflamed barrels are gripping representations of the secretive workings of wrath or desire in a world lacking the advantages of neuroscience (Paster, 2004: 43; Luis-Martínez, 2010: 97). As Wright acknowledges, "we cannot enter into a mans heart, and view the passions or inclinations which there reside and lie hidden", so the only way to detect them is "by some effects and externall operations; and these be no more than two, words & deeds, speech and action" (Wright, 1604: H5r). Any account of their inner processes remains phenomenological "speculation":

As the motions of our Passions are hidde from our eyes, so they are hard to bee perceived; yet for the speculation of this matter, I think it most necessary, to declare the way and manner of them ... First then, to our imagination commeth, by sense or memorie, some object to be knowne, convenient or disconvenient to Nature, the which being knowne (for *ignoti nulla cupido*) in the imagination which resideth in the former part of the braine ... when we imagine any thing, presently the purer spirites flocke from the brayne, by certayne secret channels to the heart, where they pitch at the doore, signifying what an object was pretended

... The heart immediately bendeth, either to prosecute it, or to eschewe it: and the better effect that affection, draweth other humours to helpe him, and so in pleasure concurre great store of pure spirites; in payne and sadnesse, much melancholy blood, in ire, blood and choler; and not onely ... the heart draweth, but also the same soule that informeth the heart residing in other partes, sendeth the humours vnto the heart, to performe their service in such a woorthie place... (Wright, 1604: B4r–B4v)

Wright's descriptions substantiate "the great riches" that in his opinion his treatise promises to both "the Physitian of the soule" and "the Physitian of the bodie" (Wright, 1604: B2v). In the former category he includes theologians, moral philosophers and preachers, all of whom will find in "the inordinate motion of the Passions" the cause of man's blind inclination to vice, but also the way toward virtuous rectification. For their part, the body-orientated physician will detect in "the excesse of an inordinate Passion" a sign

to explicate the manner how an operation that lodgeth in the soule can alter the bodie, and move the humors from one place to another, (as for example, recall most of the bloud in the face, or other partes, to the heart, as wee see by daily experience to chance in feare and anger) yet they consent that it may proceede from a certaine sympathie of nature, a subordination of one part to another, and that the spirites and humors wait vpon the Passions, as their Lords and Maisters. (Wright, 1604: B2v)

Wright's heavily figurative rhetoric aids a dualistic notion dividing the material from the immaterial, body from soul (Sullivan, 2017). While the passions belong to the soul, the spirits and humours are bodily fluids: the spirits regulate bodily functions such as movement or nutrition, and the humours are responsible for human temperament. Bodily fluids are thus to the mind what servants are to their masters: the passions cause humoral imbalance, which conversely serve as material symptoms of a passion-ridden mind. Yet these same metaphors seem to work simultaneously in the opposite direction by blurring the boundaries between bodily materiality and the incorporeal soul. This slippery frontier defines the natural terrain of Renaissance affect. Wright's affirmation that the passions are "internall actes or operations of the soule" entails a geopolitical understanding of the microcosmos of the self: relations among its parts are problematised across its imagined lands, borders and social hierarchies. Human inclinations resolve in ways resembling state decisions:

Here must be noted, that albeit these passions inhabite the confines both of sense and reason,

yet they keep not equall friendship with both; for passions and sense are like two naughtie servants, who oft-times beare more love one to an other, than they are obedient to their Master: and the reason of this amitie betwixt the passions and sense, I take to bee, the greater conformitie and likenesse betwixt them, than there is betwixt passions and reason; for passions are drowned in corporall organs and instruments, aswell as sense; reason dependeth of no corporall subiect, but as a Princesse in her throne, considereth the state of her kingdome. Passions & sense are determined to one thing, and as soone as they perceive their object, sense presently receives it, and the passions love or hate it: but reason, after shee perceiveth the object, she standes in deliberation, whether it be convenient she should accept it, or refuse it. (Wright, 1604: B4v–B5r).

The borderline nature of human passions explains their resistance to measuring and monitoring by reason. In the absence of other methods of quantification and description that guarantee their medical and moral tutelage, poetic language—with its special capacity for metaphor—emerges as a surrogate technology of representation. The most sophisticated theory of poetic imitation in the English Renaissance is found in Sir Philip Sidney's reading of Aristotelian mimesis in the *Defence of Poesie* (c. 1581, published 1595):

Poesie therefore is an Art of Imitation: for so Aristotle termeth it in the word mimesis, that is to say, a representing, counterfeiting, or figuring forth to speak Metaphorically. A speaking Picture, with this end to teach and delight. (Sidney, 1923: 9)

As S.K. Heninger has argued, Sidney's three gerunds glossing the Aristotelian notion progress from 1) "representing", or faithful reproduction of the imitated object, through the ambivalent duplicity of 2) "counterfeiting", i.e., the notion that the imitation is simultaneously same as and other than the represented object, to the imagistic creativeness of 3) "figuring forth", or the fashioning of a poetic object that exists only in the poet's mind, and whose visual power is realised via metaphor (Heninger, 1989: 287). This potential is contained in the poetic qualities of *energeia* (forcibleness and efficacy of representation) and *enargeia* (the capacity to present to the visual imagination what is not available to the eye). Yet, as Sidney makes clear via Horace, the vividness of poetic figuration is indissociable from its moral mission: didacticism remains a necessary teleology of his speaking pictures. As poet George Chapman argued in 1595, resorting again to the painting analogy, *enargeia* is the rationale for the seriousness of poetry's "philosophical conceits":

That, *Enargia*, or cleereness of representation,

requird in absolute Poems is not the perspicuous deliuey of a lowe inuention; but high, and harty inuention exprest in most significant, and vnaffected pharse; it serues not a skilfull painters turne, to draw the figure of a face onely to make knowene who it represents; but hee must lymn, giue luster, shadow, and heighteining... (Chapman, 1941: 49).

In going beyond the ideal of making nature recognisable through mere resemblance, the poetic drawing of figures must be able to philosophically match the complexities of nature.

Focus on Thomas Wright's psycho-physiological approach to the passions in connection to theories of poetry in late sixteenth-century England has hoped to show the strong correlation that exists between the representational strategies of philosophical and poetic discourse. Wright's speculative descriptions of affective processes start from the recognition of their inaccessibility to our direct perception and measurements, a difficulty that hinders our rational control and ethical monitoring of their effects. On its part, the figurative potential of *poiesis* helps represent or fashion in entirely new ways the intensity of those emotional processes. Moreover, the Renaissance literary medium is one in which affective intensity is often subjected to the policy of aesthetic form. The case of Shakespearean tragedy is paradigmatic of the frequency with which extreme passions, often the subject of sublime poetry, are depicted as the source of Aristotelian hamartia, or tragic error, and therefore as leading to undesirable effects upon spiritual, social and political welfare. While representations of excessive ambition in *Macbeth* (1606), or inordinate jealousy in *Othello* (1603), are occasions for high art and intense aesthetic response, tragic form also acts as a moral ratio of their individual and social disruptiveness.

However, one may not expect disgust to be a tragic passion in the sense described above. Although Shakespearean tragedy often brims with expressions of disgust, the emotion itself can hardly be imagined as a direct cause of tragic action or life. Rather, disgust constitutes a mainly defensive, aversive energy against the primary causes of tragic evil. There are, moreover, additional difficulties for understanding this incipient literary phenomenology of disgust in Shakespeare's time. One is that we find descriptions of its sources more often than of the emotion itself. Shakespeare's own time was still in search for "a local habitation and a name" of this particular aversive response. In a recent article focusing on early seventeenth-century England, Robinson has argued that "the years on either side of 1600 actually invented disgust" (2014: 553). He analyses a contemporary lexicon for similar human emotions, arising in Thomas Aquinas's discussion of the passions in *Summa Theologiae*. There is no exact equivalent for disgust in Aquinas. The closest term is *aversio*,

one of the concupiscible passions, which he opposes to desire (King, 1999: 101-132). Though following the Thomistic classification, Wright prefers the term "abomination" (1604: C3v-C4r, sic., in its false etymological spelling). Yet it is precisely in the dissolution of the oppositional boundary between aversion and desire that our sense of disgust proves the most productive emotionally and aesthetically. A case in point is the description of the bodily effects of poison in *Hamlet*:

Sleeping within my orchard—
My custom always of the afternoon—
Upon my secure hour thy uncle stole
With juice of cursed hebona in a vial
And in the porches of my ears did pour
The leperous distilment whose effect
Holds such an enmity with blood of man
That swift as quicksilver it courses through
The natural gates and alleys of the body
And with a sudden vigour it doth possess
And curd like eager droppings into milk
The thin and wholesome blood. So did it mine
And a most instant tetter barked about
Most lazar-like with vile and loathsome crust
All my smooth body. (1.5.59–73)

Unlike living mortals, a ghost can narrate its own death. This unusual vantage point enables here the self's dissociation into subject and object, as well as a perception of the "vile" and "loathsome"—two Shakespearean equivalents to present-day "disgusting"—simultaneously from both sides. Disgust and the disgusting fuse into the same self and event. The upsurge of the emotion is coterminous with the sickening metamorphosis of body into corpse. The repugnancy between poison and blood, producing repulsive skin pustules and gory coagulations, transforms the listener's—Hamlet's, the audience's—disgust into a will to explore the narrative's hidden truth. The Ghost's imperative that Hamlet keep his mind off the moral pollution of his story—"Taint not thy mind" (1.5.85)—achieves its opposite aim: by defiling the listeners' imagination, disgust sends them to mire into the aesthetic pleasures of tragedy. Disgust at the body's permeability becomes the portal to the mind's desires—and we should recall Wright's insistence on the interpenetration of body and mind in affective processes.

The former paradox exemplifies a principle that presides over recent histories of disgust. Approaching the subject through the prism of aesthetic history, Winfried Menninghaus has defined disgust—with conspicuous Shakespearean overtones—as "a state of alarm and emergency, an acute crisis of self-preservation in the face of an unassimilable otherness, a convulsive struggle, in which what is in question is, quite literally, whether 'to be or not to be' ... The fundamental schema of disgust is the nearness of a presence that is not

wanted" (2003: 1). Yet disgust equally involves, as Menninghaus also acknowledges, an overcoming of this defensive barrier that turns its aversive quality into perverse aesthetic pleasure. As another scholar puts it, "the disgust that we feel—which is an uncomfortable affect—is more than compensated for by the pleasurable fascination that we take" in the disgusting object (Carroll, 1992: 85). Disgust situates itself simultaneously against and beyond the Freudian pleasure principle.

On the side of aversion (against), disgust emerges as a profoundly moral emotion. Miller has described this aspect as "an assertion of a claim to superiority that at the same time recognizes the vulnerability of that superiority to the defiling powers of the low" (1997: 9). Specifically about Shakespeare, Robinson observes that disgust is usually "a male subject's compulsive response to a felt loss of power, or it is a dimension of power, violence, and degradation [sic.] operative within sexual desire itself" (2014: 573). Disgust at female sexuality proves fertile in Shakespearean drama, particularly as its image-generative potentials can exploit the interstices between the sensually enticing and the morally offensive that a patriarchal culture ascribes to women's bodies. Its ultimate expression is Hamlet's fantasy of his mother's lovemaking with his uncle: "Nay, but to live / In the rank sweat of an enseamed bed / Stewed in corruption, honeying and making love / Over the nasty sty" (3.4.89–92). Editors and commentators have noted the mixture of tastes and smells identifying the pornographic imaging of copulation upon semen-stained sheets in a scene staged somewhere between the smelly, greasy kitchen ("enseamed", "stewed") and the stinking pigsty (Shakespeare 2006, ed. Thompson and Taylor: 343n; Williams 1997: 115; Rubinstein 1989: 345–346). Disgust draws our attention both to Hamlet's moral vulnerability, but also to Shakespeare's poetic investment on vivid representation (*enargeia*), whereby the sexual act proves both morally offensive and aesthetically enticing to the male gaze.

The horror at female sexuality acquires hallucinatory qualities in another tragedy, *King Lear*. The old King, maddened by the ingratitude of his elder daughters, is haunted by a monstrous figure of repulsive looks and smell:

Behold yon simp'ring dame,
Whose face between her forks presages snow;
That minces virtue, and does shake the head
To hear of pleasure's name.
The fitchew nor the soiled horse goes to't
With a more riotous appetite.
Down from the waist they are Centaurs,
Though women all above:
But to the girdle do the Gods inherit,
Beneath is all the fiend's: there's hell, there's
darkness,

There is the sulphurous pit—burning, scalding,
Stench, consumption; fie, fie! pah, pah!

Give me an ounce of civet, good apothecary,
To sweeten my imagination. (4.6.123–130)

"Simp'ring" means shining, steaming, but also smiling or grinning, particularly as our first impression of this woman is a "face between her forks", or legs (Dorfman, 1994). This monstrous presence fuses the face with the vagina (Rubinstein 1989: xvi). A "fitchew", or polecat, was an Elizabethan cant term for prostitute, an echo of which is also heard in the "horse/whores" pun, whose "soil" connotes both satiety of feeding and miring in dirt and excrement—an image to which I will return. But it is smell that dominates Lear's vision of "hell", a common Shakespearean term for vagina, evoking the irresistible repulsiveness of sexual attraction: "All this the world well knows, but none knows well / To shun the heaven that leads men to this hell" (*Sonnets*: 129.13–14). The hole, or "pit", boiling with stinking sulphur, provokes Lear's mannered interjections ("fie", "pah"), which in performance can take the form of the actor's repeated retching. Looking at this and other moments in the tragedy, Colleen Kennedy (2010) has proved that the horror at female sexuality manifests in *King Lear* primarily through olfactory disgust. Certainly, smell becomes the sensorial gate to a female body imagined as another of those infernal machines—recall Shakespeare's furnace and Wright's inflamed cask—in which passionate excess roasts, explodes and boils in offensive gushes.

Expressions of disgust at and with femininity constitute a subspecies of the poetics of horror in the tragedies. They explore the divide between pleasure and displeasure, between empowerment and vulnerability, between moral scruple and transgression, and between the safeties and dangers involved in the human will to know. The latter dichotomy establishes a major Shakespearean contribution to the history of literary disgust: for Shakespeare, the emotion distinguishes itself from mere loathing at the divide between knowledge and ignorance. Disgust is the quasi-physical "taint" of the mind in its access to truth, identifying the will to know as a foundational curse. *The Oxford English Dictionary* associates most Shakespearean occurrences of "taint" with infection, putrefaction and corruption (*OED* 7b, 9a, 9b). In one of the later tragicomedies, *The Winter's Tale* (1610), the metaphor of the tainted mind reappears in Leontes' understanding of truth not as fact discovery—his wife Hermione will prove innocent of the charge of adultery—but as an inner revelation that, like the original sin, freights him with a hardly disposable burden:

There may be in the cup
A spider steeped, and one may drink, depart,
And yet partake no venom, for his knowledge
Is not infected; but if one present

The'abhorred ingredient to his eye, make known
How he hath drunk, he cracks his gorge, his sides
With violent hefts. I have drunk, and seen the
spider. (2.1.39–45)

Leonte's "abhorred ingredient" is a verbal emblem for that essence of the tragic that Aristotle and Freud detected in the a posteriori unveiling of the horror of murder and incest in Sophocles' *Oedipus the King* (Luis-Martínez 2002: 29–37). As Jocasta argues to her still unknowing husband: "Before this, in dreams too, as well as oracles, / many a man has lain with his own mother. / But he to whom such things are nothing bears / his life most easily" (Sophocles: 980–983; my emphasis). The blessing of ignorance against the curse of knowledge is an old tragic theme. Yet the emergence of disgust at the threshold separating these two stages is a modern, Shakespearean discovery: the spasmodic, "violent hefts" of vomit characterising Leontes' acquaintance with the "infection" of knowledge point to the nausea of self-hatred and misanthropic tedium that he explored more deeply other plays.

Shakespeare's gallery of misanthropes is long—one may here invoke Jacques in *As You Like It* (1599) or Thersites in *Troilus and Cressida* (1602). Yet the titular character of *Timon of Athens* is his most systematic study in disgust as a consequence of knowledge. One of the least admired plays in the Shakespeare canon, *Timon* is a tragic satire written in collaboration with younger dramatist Thomas Middleton. Timon's voluntary exile from Athens after experiencing the ingratitude of those who have lived on his excessive bounty turns in the last two acts of the play into a continued explosion of hyperbolic loathing at mankind that verges on rhetorical caricature. About this play Rolf Soellner has written that "in Timon's misanthropic speeches, the words tumble helter-skelter ... into bewildering complexes [of] unpleasant images denotive of disease and disgust" (1977: 97). Contagion through breathing becomes a favourite Shakespearean metaphor in this play: "breath, infect breath, / That their society, as their friendship, may / Be merely poison" (4.1.30–32). Spreading disease through daily social intercourse transforms the very breathing of words into a dangerous instrument of pollution:

APEMANTUS
There is no leprosy but what thou speak'st.
TIMON
If I name thee.
I'll beat thee, but I should infect my hands.
APEMANTUS
I would my tongue could rot them off! (4.3.361–364)

Contagion is simultaneously averted and sought

in acts of language; disgust stimulates energies that are defensive and invasive in equal parts. The dual nature of Timon's disgust is never more clear than when he discovers gold as he digs for roots to feed himself in the woods. Gold galvanises Timon's loathing of human venality, but it also instrumentalises his fantasies of universal annihilation. John Jowett has read strong Ovidian echoes in Timon's digging of gold. In Ovid's *Metamorphoses*, mining represents the corruption of the Iron Age. Shakespeare adds to these connotations an idea of the extraction of gold as "sexually inflected violence" committed against the womb of the "common mother" earth. Jowett examines the ambivalence of Timon's finding: is it a vein of gold ore or a buried treasure? is it the Earth's natural wealth or the sign of human corruption and crime? (Jowett, 2004: 80–87). Regardless of the different solutions that this may admit in performance, Shakespeare's poetic language opts for metamorphic duplicity. Gold's capacity to corrupt all that it touches parallels the perverse metamorphic powers of human affections, confusing the despicable with the desirable:

This yellow slave
Will knit and break religions, bless th'accursed,
Make the hoar leprosy adored ...
This is it
That makes the wappered widow wed again,
She whom the spittle-house and ulcerous sores
Would cast the gorge at, this embalms and spices
To th'April day again. (4.3.34–42; my emphasis)

Gold transforms the detested greyish ("hoar") leper into a loved creature. The sentence inaugurates a complex cluster of images around puns on "hoar", "whore" and "horse", with possible reverberations of "ore"—i.e., the natural rock from which a precious metal such as gold can be extracted. The fusion of "whore" with "hoar" facilitates a process of verbal alchemy whereby the "wappered widow", a source of profound loathing even to the most disgusting syphilitics and lepers, is metamorphosed through the possession of gold into a sexually desirable "whore", herself the cause of more contagion. This speech precedes Alcibiades's entrance, accompanied by the two prostitutes Phrynia and Timandra, whose presence onstage encourages further digging into the pun's semantic possibilities:

TIMANDRA, PHRYNIA
Give us some gold, good Timon, hast thou more?
TIMON
Enough to make a whore forswear her trade
And, to make whores, a bawd ...
Be whores still,
And he whose pious breath seeks to convert you,

Be strong in whore, allure him, burn him up;
Let your close fire predominate his smoke
And be no turncoats...

... Whore still,
Paint till a horse may mire upon your face.
A pox on wrinkles!
TIMANDRA, PHRYNIA Well, more gold, what
then?

Believe't that we'll do anything for gold.
TIMON ... Hoar the flamen
That scolds against the quality of flesh
And not believes himself...

Plague all
That your activity may defeat and quell
The source of all erection. There's more gold,
Do you damn others and let this damn you,
And ditches grave you all!
TIMANDRA, PHRYNIA

More counsel with more money, bounteous Timon.

TIMON

More whore, more mischief first — I have given
you earnest (4.3.130–165; my emphasis)

The dialogue bases its dramatic force on the prostitutes' simultaneous acceptance of "counsel" and "gold". On his part, Timon offers gold as payment for their perseverance in the corrupting nature of their office: "Whore still". At stake is Timon's disgusted analogy of the undermining effect of female lust with the corrupting quality of gold. Against the possibility of moral "conversion" by the "pious breath" of the preacher, the sexual "fire" inherent in whoring will "predominate", or choke, the moral "smoke" of words. Language and sexuality are endowed here with an uncanny alchemical power, fusing mineral, fire and gas into rotten matter. Thus, a bestial "horse" is seen miring (with perverse hints at defecation) in the mud-like thickness of a "whore's" painted face. Excrement and putrefaction fill in "ditches" (i.e., graves and vaginas), the place and organ where the prostitute's "activity" will suffocate the "erection" of both moral rectitude and male sexual energy. Timon's iterations of "whore" are offered as performative cues for the repeated action of giving gold to the prostitutes. Moreover, the frequent omission of the aspiration of the initial [h] sound in early seventeenth-century English enables the homophony of "whore" and "ore". Thus, the primal purity of "ore" is "whored" through Timon's simultaneous acts of naming ("whore" as noun), commanding ("whore" as verb) and giving gold. The essence of Timon's discovery is not an either/or issue (natural ore vs. artificially transformed gold): it is rather his disgust, ingrained in the very nature of language, at the metamorphic quality that converts the one into the other, and by extension, corrupts all aspects of human nature.

The scope of disgust in the plays commented above has a basis in acts of discovery of

knowledge. Shakespeare's metaphors are, to continue with Wright's own, his own poetic astrolabe: as powerful diagnostic tools, they chart the emotions and produce coherent moral fables about emotional excess. These figurations of disgust—particularly in the extreme form that they take in *Timon of Athens*—possess a ritualistic quality: they function as prophylactic chants exorcising the infection from all human practices. They are mechanisms of social and moral control that alert the (male) subject to inner and outer dangers threatening ideals of Adamic language, sexual innocence or natural life. But in their role as poetic constructions, they participate in the very corruption that they attempt to prevent, unleashing an inexorable fascination for what repels us. Shakespeare's poetics of disgust exemplifies both the virtues and the perils that his contemporary Sir Philip Sidney envisaged as the contradictory essence of poetic mimesis: while the poet's "erected wit maketh us know what perfection is", yet his "infected will keepeth us from reaching unto it" (Sidney, 1923: 9). "Erection" and "infection" speak to the simultaneously elevating and defiling powers of poetry.

A CASE STUDY: THE POUND OF FLESH

Upon exploring utmost forms of ambivalence in Shakespearean disgust, Shylock, the Jewish moneylender of *The Merchant of Venice* (1597), should occupy a world of his own. Yet disgust has not elicited much interest in critical assessments of this play. Writing about Shylock's literary uniqueness, Kenneth Gross comes close to identifying the problem in suggesting that he embodies "a poetics of repugnancy":

The *Merchant of Venice* is a play that explores the dramaturgy of repugnancy, the aesthetics of things repugnant—taking the word both in its more commonplace meaning, where it relates to a feeling of disgust or hatred aroused in us by a person or thing, and in its older, philosophical usage, referring to something contradictory or inconsistent, unresponsive to logical reasoning. Is there a specifically Shakespearean repugnancy? And what would that tell us about a specifically Shakespearean humanity? (Gross, 2006: 11)

Gross's important questions remain unanswered in his book. Thinking strictly of the philosophical-logical senses of the term, one could recall Ramist logician Abraham Fraunce's claim that repugnancy addresses "the most vehement contrariety" between two arguments or parts, admitting no sort of mediation between them (Fraunce, 2016: 88). *The Merchant of Venice* is about such irreconcilable contrariety, as well as about the success or failure of different forms of mediation. The present reading takes the antagonism between Antonio and Shylock as its primary interest, yet it sees its eco-

nomic, legal, and religious motivations through the emotional prism of repugnance. In *The Merchant of Venice* Shakespeare goes beyond the merely imagistic interest of earlier and later plays to ingrain disgust in the structure of one of his most sophisticated dramatic artefacts.

Kenneth Gross has called *Merchant* “a hyper-structured play” for its obsession with patterning at the levels of plot, character, imagery and ideas (Gross, 2006: 2). Disgust is part of this calculated patterning, though in a form that added, to the accustomed attention to poetic imitation, an interest in another form of intersubjective mimesis that René Girard analysed in an unusual work of criticism: *Shakespeare. Les feux de l'envie* (1990; English translation 1991). Girard’s book transferred his well-known theories of mimetic desire and mimetic rivalry to the analysis of Shakespeare’s plays. For Girard, the essence of desire lies in the subject’s adoption of the desire of the Other: human affections are predominantly envious, structured upon a triangular pattern of subject-model-object. This intersubjective spreads socially in pathogen-like fashion, causing multiple forms of social violence. In this context, a sacrificial crisis through scapegoating emerges as a social mechanism limiting the uncontrolled contagion of mimetic violence (Girard, 1965: 1-52; Girard, 1988: 41-71). Shakespeare’s plays pose for Girard a constant tension between mimetic and sacrificial patterns of conflict:

As a dramatic strategist, Shakespeare deliberately resorts to the power of scapegoating. During much of his career, he combined two plays in one, deliberately channelling different segments of his audience toward two different interpretations of one and the same play: a sacrificial explanation for the groundlings, which perpetuates itself in most modern interpretations, and a nonsacrificial, mimetic for those in the galleries. (Girard, 1991: 6).

While I maintain, with Girard, that this dichotomy allows for exploring sophisticated layers of interpretation, I refuse to associate the sacrificial to lack of complexity and the mimetic to subtler modes of thinking. Fully committed to showing the play’s complexities, most critical interpretations of *Merchant* focusing on Shylock naturally resort to sacrificial schemes, particularly in viewing, from the perspectives of race and religion, the defeat of the Jewish moneylender as an exercise in literary scapegoating (see, as an instance, Cohen, 2003: 61-81). This holds true even for those readings that rehearse ingenious displacements of the scapegoat figure, often to Antonio (Adelman, 2008: 99-134).

Girard’s analysis of mimetic desire in Shakespeare mostly focuses on the erotic, or on forms of passion that can be assimilated to it. In this context, the subject’s desire involves a willingness to

occupy the ontological state of the model, or possessor of the desired object. Girard labels this state of desire “ontological sickness” (Girard, 1965). One would wonder, however, the extent to which other emotions can respond to similar patterns. I am specifically thinking of disgust’s adoption of affective mechanisms that fuse aversion and attraction. In this sense, Shylock’s fate in *Merchant*—whatever he does that ultimately renders him as the scapegoat—ensues from his desire to experience as a subject the disgust that is projected socially upon him. This explanation can enable a better understanding of his mysterious desire: what does he pursue or want by demanding the forfeit of his bond—the cutting off and the possession of Antonio’s pound of flesh?

A cursory summary of the contention between Antonio and Shylock is due at this point. In order to provide his friend Bassanio with the necessary funding for his trip to Belmont, where the latter plans to woo the rich heiress Portia, and having all his fortune in his galleys at sea, the merchant Antonio must obtain three thousand ducats by credit. Impelled by Antonio’s injunction that he “try what [his] credit can do in Venice” (1.1.180), Bassanio persuades Shylock to lend that amount to the merchant on provision of a formal bond. Shylock immediately sees the bond as an opportunity against an old enemy. Commercial exchange between Jews and Christians is customary in Venice, yet Shylock clearly specifies the limits governing their social intercourse. In reply to Bassanio’s invitation to a dinner where they can discuss the terms of their agreement, Shylock argues with irony:

Yes, to smell pork, to eat of the habitation which your prophet the Nazarite conjured the devil into. I will buy with you, sell with you, talk with you, walk with you and so following. But I will not eat with you, drink with you nor pray with you. (1.3.30–34)

Shylock’s evocation of physical revulsion around the Jewish taboo of eating pork preludes his explanation of the mutual hatred between himself and Antonio on grounds of crude racial prejudice: “I hate him for he is a Christian / ... He hates our sacred nation” (1.3.38, 44). Another irreconcilable difference is their lending practices. Thus Shylock on Antonio: “But more, for that in low simplicity / He lends out money gratis, and brings down / The rate of usance here in Venice” (1.3.39–41). And Antonio on Shylock: “and he rails, / Even there where merchants most do congregate, / On me, my bargains and my well-won thrift, / Which he calls ‘interest’” (1.3.46–49).

Issues of rivalry and enmity thus haunt the negotiation of the bond. Why, Shylock asks, should he lend money to a man who has shown his utmost disgust for him? Shakespeare turns to the visceral and the subhuman by depicting clothes, hair and skin smeared with the basest and most polluting of

bodily fluids:

You call me misbeliever, cut-throat dog,
And spit upon my Jewish gaberdine,
And all for use of that which is mine own [...] You that did void your rheum upon my beard
And foot me as you spurn a stranger cur
Over your threshold, moneys is your suit.
(1.3.106–108, 113–115)

The mucous “rheum” spat on the Jew’s Biblical beard emblematises Shylock’s defilement by Christian repugnance. Yet, despite Antonio’s insistence on the unfriendly quality of their transaction—“when did friendship take / A breed of barren metal to his friend? (1.3.128–129)—, Shylock still offers to “forget the shames that you have stained me with” (1.3.135). Shylock carefully culls all the physical and moral evidence of Antonio’s disgust at him to substantiate the nature of the bond:

This kindness I will show.
Go with the notary, seal me there
Your single bond, and, in a merry sport,
If you repay me not on such a day,
In such a place, such sum, or sums, as are
Expressed in the condition, let the forfeit
Be nominated for an equal pound
Of your fair flesh, to be cut off and taken
In what part of your body pleaseth me.
(1.3.139–147)

Editor John Drakakis reads Shakespeare’s insistence on the “merry” quality of the bond as a posteros caricature of the typical provisions of a financial contract (Shakespeare 2006, ed. Drakakis: 220n). Yet, in an incisive analysis of the play’s legal framework, Charles Spinosa (1994) argues that two legal orders are confronted in Shylock and Antonio, an older customary model against a modern contractual one. Spinosa thus departs from a characterisation of Shylock as a calculating usurer, and explains his logic of the bond as a strategy for claiming respect and recognition for a customary mode of life that is utterly despised by the play’s Christian society. For Spinosa, “Shylock is not really a mechanical bean counter at all but one who senses that this bond is a good way to explore and deepen his bitter relations with Antonio” (1994: 393). Rather than primarily a form of revenge, Shylock’s demand for the forfeiture of the pound of flesh is a claim for “a sense of sanctity for his flesh, for what is his own, that has been taken away by the principal actor in the Christian world” (1994: 399).

Spinosa’s position explains the prominence given by Shylock to emotional over economic investment—i.e., his accounting of grievances rather than ducats in his negotiation with Antonio. Evidence for this in the text reveals conspicuous differences between Shakespeare’s treatment and

his sources. The principal source for the play, the opening story of the Fourth Day in Ser Giovanni Fiorentino’s *Il Pecorone* (1558), is highly unspecific about these matters, and the principal coincidence between both stories is the leaving to the Jew the choice of the place from which the merchant’s flesh may be taken. In another probable source, Alexander Sylvain’s Declamation 95 in *The Orator* (1581, translation from the French published in 1596), the Jew’s court appeal is motivated by his rejection of the judge’s command that he cut off the merchant’s flesh:

Neither am I to take that which he oweth me, but he is to deliver me: And especiallie because no man knoweth better than he where the same may be spared to the least hurt of his person, for I might take it in such a place as hee might thereby happen to lose his life. (Bullough, 1966: 484)

At this point, Sylvain names possible bodily parts—the “head”, “his nose, his lips, his eares, and ... his eies, to make altogether a pound”, or even “his privie members, supposing that the same would altogether weigh a just pound” (Bullough, 1966: 484). Yet these never speak to the Jew’s particular intentions.

In contrast with Sylvain, Shakespeare prefers to stress Shylock’s willingly active part in the mutilation. He also begins by leaving open to Shylock’s choice the specific part of Antonio’s body, even if the court scene later specifies, somewhat inconsistently, that it is “to be by him cut off / *Nearest the merchant’s heart*” (4.1.228–229; my emphasis). The displacement to the heart nurtures the audience’s horror at Shylock’s murderous wishes. It has also elicited the analysis of cultural and religious issues behind the literality of the text. James Shapiro’s influential *Shakespeare and the Jews* (1996) stresses the latent though compelling theme of circumcision reinforcing the play’s representation of theological strife and cultural anxiety. Focusing on sources that mention the genitals as the bodily parts invested in the bond, as well as the intimations of castration underlying Shakespeare’s language—the taking out of “jewels” and “stones” (2.8.20–22) point at current metaphors for testicles—, Shapiro reads the transposition from the private parts to the heart in the context of Renaissance debates on St Paul’s disapproval of circumcision for mistaking the signifier for the signified, the ritual for its purifying meaning,—i.e., the true circumcision being “of the heart”. Shylock’s desire for Antonio’s heart is then a revengeful wish to exact punishment “in that part of the body where the Christians believe themselves to be truly circumcised”, with the effect of “erasing, rather than preserving, the literal or figurative boundaries that distinguish merchant from Jew” (Shapiro, 1996: 127, 130).

Shapiro’s conclusions on indistinction offer solid

ground for considering the play's representation of rivalry. Yet the emphasis on the symbolic specificity of the bodily parts may risk over-interpretation. It should be noted that Shakespeare's text takes us with more frequency to quantities than to symbolic suggestions. The insistence is on the act of weighing, and on "just" and "equal" measures. There is also the literality of the act of cutting, not so much in its meaningfulness as an act of revenge or symbolic circumcision, but as the plain physical action separating the flesh from Antonio's body, or more specifically, differentiating what that piece of flesh is—and is for—before and after being excised. The thing remains a "pound of your fair flesh" while it is Antonio's, yet it threatens to become, appallingly and disgustingly enough, "a weight of carrion flesh" when it finally passes to be an amorphous, lifeless property of Shylock's.

We should also consider Shylock's reasons for pursuing the pound of flesh. Sylvain's text should be invoked here for its contrast with Shakespeare's: "A man may aske why I would not rather take silver of this man, then his flesh". Among other possibilities, Sylvain's Jew understands his taking the flesh as an exemplary act—i.e., "that I would have it to terrifie thereby the Christians for ever abusing the Jewes anie more hereafter" (Bullough, 1966: 484). Yet how different is Shylock? What does he want the flesh for and what will he do with it? It is the instrumental and final causes of the pound of flesh that become an object of constant interrogation, though never of definite answers. Shylock's only direct answer has received little attention, as it is occluded in the context of his most famous speech claiming human and racial dignity:

SALARINO

Why, I am sure if he forfeit, thou wilt not take his flesh. What's that good for?

SHYLOCK

To bait fish withal; if it will feed nothing else, it will feed my revenge. (3.1.46–49; my emphasis)

In typically Shakespearean indirection, the fishing bait may divert us from understanding revenge as the final cause of Shylock's desire, particularly as it draws attention to its status as "carrion"—of which more below. Shylock's famous vindication primarily concerns his right to feel: "Hath not a Jew hands, organs, dimensions, senses, affections, passions?" (3.1.53–54). He claims a humoral body of his own, able to control his own processes of desire and aversion. Revenge becomes an end only as long as those processes manifest themselves mimetically: "If a Jew wrong a Christian, what is his humility? Revenge! If a Christian wrong a Jew, what should his sufferance be by *Christian example*? Why, revenge!" (3.1.61–64; my emphasis). Shylock's mimetic self-education in the passions by Christian example motivates, perhaps in

more subtle ways, his next answer to the same question, now in the formal premises of the courtroom where he goes to claim his bond:

You'll ask me why I rather choose to have

A weight of carrion flesh than to receive

Three thousand ducats. I'll not answer that!

But say it is my humour. Is it answered?

Why if my house be troubled with a rat,

And I be please to give ten thousand ducats

To have it baned? What, are you answered yet?

Some men there are love not a gaping pig!

Some that are mad if they behold a cat!

And others, when the bagpipe sings i'th' nose,

Cannot contain their urine: for affection,

Maistrice of passion, sways it to the mood

Of what it likes or loathes. Now, for your answer:

As there is no firm reason to be rendered

Why he cannot abide a gaping pig,

Why he a harmless necessary cat,

Why he a woollen bagpipe, but of force

Must yield to such inevitable shame

As to offend himself being offended;

So I can give no reason, nor I will not,

More than a lodged hate and a certain loathing

I bear Antonio, that I follow thus

A losing suit against him! Are you answered?

(4.1.39–61)

For many interpreters, these are the most enigmatic words in *Merchant*. Kenneth Gross emphasises its animal determinism: Shylock "stands outside himself, describing his own moral passion as automatic, deterministic, and compulsive, demanding implicitly that others suspend their resentment, for how could one resent so animal-like a hater?" (Gross, 2006: 73). On his part, John Gross gauges its "startling psychological urgency" against its "unrealistic" stance as a courtroom piece (Gross, 1992: 83). Quite contrarily, Sigurd Buckhardt has averred that Shakespeare writes here "close to his dramatic best", with an authenticity that defeats the "flaccidly oratorical" manner of his rival (1968: 208). And Charles Spinosa concludes that, rather than as commercially calculated reactions, "Shylock understands his actions as unmediated fleshly responses to solicitations of the environment", showing "his own life and body in a particularly loathsome light". In Shylock's imagery of outrage and humiliation, one senses "the odor of disgust and self-disgust" (1994: 398).

The speech corroborates Shylock's final preference of "a weight of carrion flesh" over "a breed of barren metal"—and one should notice the parallel design of both syntactic constructions. But it also effects the transition from "a pound of [Antonio's] fair flesh" to "a weight of carrion flesh", that is, from the ontological state of that flesh while it remains part of Antonio's body to its metamorphosed essence when it is severed from Antonio and becomes an object of Shylock's possession and use.

The disgusting sight, odour and feel of putrefaction—"carrion" is a word that Salanio snaps out at Shylock (3.1.32)—is its most specific trait, and one which strongly resists its easy transformation into a signified or symbol. Shylock's entire speech lingers on a meaningless physicality reinforced by a blatantly contradictory logic that has received little critical attention. In order to exemplify the reasons why he seeks the possession of so repugnant an object, Shylock ironically produces a list of objects that other men shun: thus the same "humour" that impels him to desire Antonio's flesh would lead other men to fear a rat, hate a gaping pig, loathe a cat, or foul themselves incontinently at the sound of a bagpipe. Shylock's logic of disgust is manifest in the blurring of the differences between desire of and aversion to the disgusting object. Inflicting self-offence (through urinating on oneself) as a reaction to the offence that one takes from external objects increases the repugnancy of Shylock's emotional crossroads. Invoking a determinism that is reminiscent of the processes and instances than have been studied in Wright, Shylock iterates the mechanism leading from the affective stimulus to the passionate reaction that renders liking and loathing indistinguishable.

In proceeding through analogies and similes, Shylock's rhetorical stance betrays its mimetic drive. First, because the justification of his desire for Antonio's flesh is modelled on the disgust of others. And second, and most importantly, because his drive to possess the flesh of the man that causes his loathing fuses the object of his disgust with the model of his desire. In Girard's mimetic theory, the model equals the rival. And this is the double part that Antonio plays for Shylock. Their competition is not for an object of desire but for the right to experience disgust, or so does Shylock see it. His "humour" seeks to model his own disgust for Antonio on the arrogant form of racist aversion that Antonio and the Venetians have shown for him: thus emotional mimesis transforms Antonio's uncomplicated loathing into Shylock's highly ambivalent disgust. His claim to equity of emotions is a moral claim to place his hostility to Antonio the Christian at the same level, and with the same degree of nonchalance, as Antonio's scorn for the Jew. Shylock's invocation of his "humour" entails his right not to render a rational account of his emotions. No Christian in the play is asked to do so, so why should he? In choosing to possess Antonio's flesh, Shylock means to appropriate the other's disgust. And in measuring it by the pound, he seeks to objectify it as a way of comprehending the value of his new possession. To emulate Antonio's disgust, he must exact an equal weight of it. He means to compensate his alienation in the Venetian society by arrogating for himself the moral and social authority conferred by this emotion. Yet the dialectic of emotional confrontation fostered by mimetic disgust puts the ri-

valry between Shylock and Antonio in a dead-end situation. That is why the intervention of Portia as a lawyer translates the legal resolution of the conflict to terms—mercy against justice, compassion against cruelty—that resort to the sacrificial model. The confiscation of Shylock's goods and his forced conversion to Christianity supply an intelligible image to a less conspicuous emotional truth: by being deprived of his disgust, he is dispossessed of his utmost right to feel and to experience.

CODA: SHAKESPEAREAN REPUGNANCY

"This majestic roof fretted with golden fire, why it appeareth nothing to me but a foul and pestilent congregation of vapours" (2.2.266–269). A final instance from Shakespeare's *Hamlet* offers an excuse for rehearsing an answer to Kenneth Gross's formidable question along the lines explored in this essay: Is there a specifically Shakespearean repugnancy? Hamlet's expression of universal disgust is not far from the exaggerated mannerisms of Timon's misanthropy analysed above. It is in fact a version of the late sixteenth-century conventional anti-humanist discourse contesting the former idealist praises of the excellencies of man by Pico della Mirandola or Juan Luis Vives. Yet its grand philosophical argument coexists with the emotional outburst averting the nearness of the repugnant object. "Pestilent" assembles bad odour and contagion, evoking other references in his plays to a contaminating female sexuality as the origin of corruption. Shakespeare's complex clusters of meaning often defy proper measuring, as in the scope of one sentence its words range vertiginously from individual to social and cosmic dimensions. But its genuine quality is a function of its mimetic dependence of the literary and cultural traditions that resonate in this complexity. If there is a genuinely Shakespearean disgust, that must be sought in the highly mimetic capacity of his language not only to fashion images of the repugnant, but also to create structures of thought that speak to complex narratives of revulsion, resistance, aggression, competition or humiliation. The "specifically Shakespearean humanity" that distils from his plays and that elicits our fascination and disgust is also inevitably mimetic.

ACKNOWLEDGEMENTS

This article is part of the work on Renaissance poetics carried out in the context of the Research Project "Towards a New Aesthetics of Renaissance Poetry" (Spanish State Agency for Research-AEI, FFI2017-82269-P), of which the author is Principal Researcher.

REFERENCES

- ADELMAN J (2008) *Blood Relations: Christian and Jew in The Merchant of Venice*. Chicago: U of Chicago P.
- BAMBOROUGH JB (1952). *The Little World of Man*. London: Longmans, Green, and Co.
- BOURN C, BOURN EC (2018) *The Routledge Companion to Shakespeare and Philosophy*. Abingdon: Routledge, 2018.
- BULLOUGH G (1966) *Narrative and Dramatic Sources of Shakespeare. Volume I: Early Comedies; Poems; Romeo and Juliet*. London: Routledge & Kegan Paul.
- BURCKHARDT S (1968) "The Merchant of Venice: The Gentle Bond", in *Shakespearean Meanings*. Princeton, NJ: Princeton UP, pp 206-236.
- CARROLL N (1992) "Disgust or Fascination? A Response to Susan Feagin". *Philosophical Studies*, 65: 85-90.
- CHAPMAN G (1941) *The Poems of George Chapman*. New York: Modern Language Association of America.
- COHEN D (2003) *Searching Shakespeare: Studies in Culture and Authority*. U of Toronto P.
- CRAIK CT, POLLARD T (2013) *Shakespearean Sensations: Experiencing Literature in Early Modern England*. Cambridge UP.
- DORFMAN T (1994) "The Fateful Crossroads: 'Fork' Clusters in Shakespeare's Plays". *Shakespeare Bulletin*, 12: 31-34.
- ESCHENBAUM NK, Correll B (2016) *Disgust in Early Modern English Literature*. Abingdon: Routledge.
- FRAUNCE A (2016) *The Shepherd's Logic and Other Dialectical Writings*, ed. Zenón Luis-Martínez. Cambridge: MHRA.
- GIRARD R (1965) *Deceit, Desire, and the Novel: Self and Other in Literary Structure*. Baltimore, MD: The Johns Hopkins UP.
- GIRARD R (1988) *Violence and the Sacred*. London: Athlone 1988.
- GIRARD R (1991) *A Theatre of Envy: William Shakespeare*. Oxford: Oxford University Press.
- GROSS J (2001) *Shylock: A Legend and Its Legacy*. New York: Simon & Schuster.
- GROSS K (2006) *Shylock is Shakespeare*. Chicago: U of Chicago P.
- HENINGER SK Jr (1989) *Sidney and Spenser: The Poet as Maker*. University Park, PA: Pennsylvania State UP.
- JOWETT J (2004) "Timon and Mining". *SEDERI*, 14: 77-92.
- KENNEDY CE (2010) Do You Smell a Fault?: Detecting and Deodorizing King Lear's Distinctly Feminine Odor". *Appositions* 3 <http://appositions.blogspot.com/2010/05/colleen-kennedy-deodorizing-king-lear.html>
- KING P (1999) *Aquinas's Moral Theory*. Ithaca, NY: Cornell UP.
- LUIS-MARTINEZ Z (2002) *In Words and Deeds: The Spectacle of Incest in English Renaissance Tragedy*. Amsterdam: Rodopi.
- LUIS-MARTINEZ Z (2010) "Macbeth and the Passions' 'Proper Stuff'". *SEDERI*, 20: 71-101.
- MENNINGHAUS W. *Disgust: Theory and History of a Strong Sensation*. New York: State U of New York P.
- MILLER WI (1997) *The Anatomy of Disgust*. Cambridge, MS: Harvard University Press.
- OED Oxford English Dictionary Online: <https://www.oed.com/>
- PASTER GK (2004) *Humoring the Body: Emotions and the Shakespearean Stage*. U of Chicago P.
- ROBINSON B (2014) "Disgust, c. 1600". *ELH*, 81: 553-583.
- RUBINSTEIN F (1989) *A Dictionary of Shakespeare's Sexual Puns and their Significance*. Basingstoke: Palgrave Macmillan. 2nd ed.
- SCHOENFELDT M (1999). *Bodies and Selves in Early Modern England: Physiology and Inwardness in Spenser, Shakespeare, Herbert, and Milton*. Cambridge UP.
- SIDNEY P (1923) *The Complete Works of Sir Philip Sidney III: The Defence of Poesie; Political Discourses; Correspondence; Translations*. Cambridge UP.
- SHAKESPEARE W (1972) *King Lear*. Ed. K MUIR. London: Routledge.
- SHAKESPEARE W (1984) *A Midsummer Night's Dream*. Ed. RA Foakes. Cambridge UP.
- SHAKESPEARE W (1997) *Shakespeare's Sonnets*. Ed. K Duncan Jones. London: Thomson Learning.
- Shakespeare W (2006) *Hamlet*. Ed. A Thompson, N Taylor. London: Cengage.
- SHAKESPEARE W (2008) *Timon of Athens*. Ed. AB Dawson, GE Minton. London: Bloomsbury.
- SHAKESPEARE W (2010) *The Winter's Tale*. Ed. J Pitcher. London: Bloomsbury.
- SHAKESPEARE W (2011) *The Merchant of Venice*. Ed. J Drakakis. London: Bloomsbury.
- SHAPIRO J (1996) *Shakespeare and the Jews*. New York: Columbia UP.
- SOELLNER R (1979) *Timon of Athens: Shakespeare's Pessimistic Tragedy*. Columbus, OH: Ohio UP.
- SOPHOCLES (1954) *The Complete Tragedies I: Oedipus the King, Oedipus at Colonus, Antigone*. Ed. and trans. D Grene. U of Chicago P.
- SPINOSA C (1994) "The Transformation of Intentionality: Debt and Contract in The Merchant of Venice". *English Literary Renaissance*, 24: 65-85.
- SULLIVAN E (2017) "The Passions of Thomas Wright: renaissance emotions across body and soul". In: Meek R, Sullivan E (eds). *The Renaissance of Emotion: Understanding Affect in Shakespeare and His Contemporaries*. Manchester: Manchester University Press, pp 25-44.
- WILLIAMS G (1997) *A Glossary of Shakespeare's Sexual Language*. London: Athlone.
- WRIGHT T (1604) *The Passions of the Minde in General*, London: Valentine Simmes.

Illness and disgust. Compensation strategies of patients and healthcare professionals

Eva Sotomayor¹, Fernando Aguiar²

¹Universidad de Jaén, Jaén, Spain

²Instituto de Filosofía-Spanish Council for Scientific Research (IFS-CSIC), Madrid, Spain

SUMMARY

In this article, we carry out a review of disgust in healthcare contexts (healthcare staff and patients), a topic not studied enough yet. To this end, we first accomplish a brief presentation of disgust biological and socio-moral elements, which allow us to understand the role of disgust in patients' rejection of their own wounds and self-healing. Disgust can lead patients to refuse self-care treatments after surgery or refuse to carry out diagnostic tests. On the other hand, health professionals are not exempt from feeling disgust because they are in contact with factors that cause it, which may conflict with professional ethics and the duty of care.

In addition, we present the preliminary results of a pilot study in which we show what causes disgust in doctors and nurses and how they deal with it. The results point to compensation strategies that could affect the quality of care. In this sense, it is necessary to highlight the differences between the factors that cause disgust, since on many occasions they are not due to the disease, but to the lack of hygiene on patient's side.

In short, due to disgust, the patients could refuse to heal their wounds on their own and due to this same emotion doctors may feel discomfort in attending the patients.

Key words: Disgust compensation strategies – Health professionals' disgust – Poor hygiene – Repugnance – Self-healing – Wound rejection

INTRODUCTION

Disgust has been one of the least studied emotions. Unlike love, fear, anger or contempt, disgust leads us to deal with the most repulsive human and non-human matter: feces, semen, blood, vomiting, rot, bad smells, disgusting tastes, etc. These issues moved away disgust from academic studies for a long time (Miller, 1997).

That situation has completely changed in the last three decades. However, since disgust lags behind other emotions, there are still many issues to explore. One of them is the relationship between disgust, patients, and health professionals. There are hardly any works that empirically link this triangle. That prevents a good understanding of patients' relationship with their disease, wounds and scars, as well as the measures that health professionals take to control their own repugnance feeling. To try to contribute to fill this gap, we are going to first present the best established elements of disgust theory so far (what is known as Rozin's perspective), to see later how this feeling affects health professionals and patients.

Disgust evolution mixes biological and cultural aspects in a way that is not easy to disentangle. Basic or core disgust turns around food, mouth, body products, and animals to protect us from disease and infection. Although disgust's cultural variety is really huge, it can be divided into nine domains: food, bodily products (semen, mucus, saliva...), animals, sexual behaviors, contact with dead people and corpses, violations of the exterior

Corresponding author: Fernando Aguiar. Instituto de Filosofía

-CSIC, C/ Albasanz 24-26, 28037-Madrid, Spain.

E-mail: faguiar@cchs.csic.es

body envelope (wounds, deformities), poor hygiene, contact with strangers, and moral offenses (Haidt, 1993; Rozin et al., 2008; Rozin et al., 2013). At the same time, it seems that there are some universal elements present in all disgust domains. Every disgust expression presents a behavioral component (rejection), a physiological component (nausea), an expressive component (disgust face), and a subjective component (repugnance feeling) (Rozin et al., 2008).

Starting from basic disgust, it can be understood the second of the main disgust functions: to reject our death fear, to forget about death (Tybur, 2009; Rozin et al., 2000). Disgust implies above all the rejection of the decomposition of what is alive and the fact that we have to die. (McGinn, 2001: 86). The paradigmatic disgust would be, therefore, the decay of tissues, putrefaction. This paradigm leads us, in a more general way, to reject our animal nature (Goldenberg et al 2001). This is reflected in our disgust towards everything we share with animals, such as certain fluids, the inside of our bloody body, and the deformities that make us look like them (humps, excrescences, etc.) (Rozin et al., 2000).

Basic disgust and fear of death lead us to the third stage in the cultural evolution of disgust: repugnance towards strangers as a possible source of infection (Rozin et al., 2008: 764; Kelly, 2011). People have developed a sharp feeling of disgust towards other people, with many different manifestations, from disgust towards another person's sweaty hand, to rejecting wearing a stranger's clothes or sharing silverware or other personal objects (Haidt et al., 1997). This is also extended to people with a "strange" look: other races, amputees, people with abscesses or (real or apparent) signs of illness, etc. (Rozin et al., 2008: 764; Rozin et al., 2000; Miller, 1997; Douglas, 1966).

Finally, the fourth stage in the cultural evolution of disgust is its moralizing nature (Haidt et al., 1997; Schnall et al., 2008; Chapman et al., 2013). The function of moral disgust would be to eradicate those behaviors that are considered immoral and, therefore, corrupt society. Homosexuality, allowed incest, sex with women during their menstruation, certain types of clothes or food, etc., cause an intense feeling of disgust in very different cultures (Douglas, 1966: ch. 3; Inbar et al., 2009). At the same time, this feeling causes immediate, intuitive moral rejection judgements (Haidt, 2012).

These four stages in disgust evolution are closely related to disease (Miller, 2004). Historically, people have not only been afraid of getting sick, but have been grossed out by the sick. That disgust has led on many occasions to reject and stigmatize them until they chose to withdraw from society. Lepers ringing their bells have been forever in the popular imagination (Navon, 2011). Rotting meat is the ultimate example of disgust and even more so when it comes to putrefaction of the human body.

Thus, it can be said that all aspects of disgust are related to disease: basic disgust (odors, abscesses, wounds), fear of death and the social and moral rejection of the patient (Williams, 1977; McGinn, 2011)

Although modern health systems have brought about a great change in the relationship between illness and disgust, they have not been able -nor will they be able- to completely eradicate this feeling of rejection. How, then, do patients cope with the disgust that certain consequences of the disease (sores, wounds, scars) can provoke in them and in others? Do health professionals feel disgust? How do they manage it? What strategies do they follow to avoid it? Do these strategies affect the care they provide to patients? On the following pages we are going to see how patients and doctors face different forms of disgust and what consequences this basic emotion has on their healing, on the one hand, and on their professional work, on the other.

DISGUST AT WOUNDS AND MEDICAL CHECK-UPS

Sometimes disease and wounds generate disgust in patients when they have to heal by themselves. This is a problem for prevention and cure, due to the stress caused by self-healing repugnance. Gaiend et al. (2011) establish a close relationship between disgust and the stress suffered by patients while self-healing, especially in those cases where they have to deal with persistent, slow-healing wounds. The authors conclude that disgust at wounds actually causes shame in patients, who feel stigmatized and try to hide them. Gaiend et al. develop a useful questionnaire that seeks to measure the ability of people to self-healing.

Table 1. Wound Management Questionnaire.

1. Looking at wounds does not worry me
2. I am not worried about looking at my own wound
3. I am not yet able to look at my own wound
4. Looking at my wound makes me feel sick
5. I would feel faint if I saw my wound
6. I can touch my wound
7. I look away when the dressing is down
8. I watch my dressing being done
9. I can help the nurse with the dressing
10. I am disgusted by the appearance of my wound
11. I can clean my wound
12. I do not feel able to massage my scar
13. The appearance of my scar does not worry me
14. With the right equipment, I could do my own dressing at home.

Agreement is indicated on a nominal scale, 1–7, with 7 representing strong agreement and 1 strong disagreement.

Source: Gaiend et al. 2011, p. 347.

The questionnaire categories are organized according to two senses and two different actions.

On the one hand, the authors take into account the sight (see the wound, see the scar) and the touch (touch the wound, bandage, clean it) and, on the other, they consider different people's reactions when other person cures their wound or when they cure on their own. Although this questionnaire is the product of a pilot study carried out on 101 patients, its results are interesting despite some shortcomings. For instance, along with sight and touch, it would have been useful to consider smell as well. The smell of wounds can cause disgust and revulsion, which increases rejection of the wound itself.

Regarding the results of this pilot study, it seems that disgust sensitivity is a predictor against the self-management in wound care (Gaidin et al., 2011: 349; Oaten et al., 2009). People who show a greater sensitivity to disgust -according to Haidt's disgust scale (Haidt et al., 1994)¹- have a lower ability to heal themselves, as might be expected, and therefore would need more help from third parties (Gaidin et al., 2011: 350). This is an important contribution to establish self-healing guidelines among the population. In this sense, the authors recommend that when planning an intervention, patients should fill out a disgust sensitivity questionnaire and a wound treatment questionnaire. In this way, patients who are likely not to accept self-healing could be identified (Gaidin et al., 2011: 350).

On the other hand, the authors conclude that people overcome faster the disgust caused by the most visible wounds. The fact that the wound could not be hidden allowed disgust to be overcome more quickly. Eighty nine percent of patients who had a wound to the face, skull, or neck felt able to heal on their own. In contrast, 40 percent of those with an abdominal wound avoided doing so (Gaidin et al., 2011, p. 350).



Fig 1. Source: Hans Braxmeier (Pixabay). <https://pixabay.com/es/photos/mano-lesiones-abrasi%C3%B3n-de-la-piel-474278/>

In addition to the patients' disgust towards their own wounds, there are other situations that are even more worrying. That is the case when disgust leads to reject a preventive medical checkup or a surgical treatment. The case of colon cancer should be highlighted here, since the tests to detect it -colonoscopy or stool analysis- are related to core disgust (feces, penetration into the body cavity, anus, etc.). This can result in patients rejecting the tests, which would negatively affect the prevention of this type of cancer. This is shown in a study by Worthley et al. (2006), which points out that 24% of the 481 interviewees refuse to perform preventive tests (faecal occult blood test, colonoscopy) because they find them disgusting and unpleasant.

In this respect, Brouse et al. (2004) and O'Sullivan et al. (2004) point out that those affected refuse to take preventive measures because they felt disgusted by taking stool samples or having a colonoscopy. In short, people show different attitudes towards this disease (colorectal cancer) according to their sensitivity to disgust.

Reynolds et al. (2013) also point out that if colorectal cancer patients can anticipate disgust at these treatments, risky behaviors in the prevention or cure could be predicted. Both attitudinal rejection, in the sense of delaying tests, and cognitive rejection (forgetting about the disease and trying not to think about it) could be avoided or redirected.

In the case of colorectal cancer, fear and disgust are intensified in the post-operation stage due to the fact, among other causes, that colostomy bags provoke disgust in others, and even fear of becoming infected. Patients who have undergone colostomies express stigmatization and social rejection, much more in the case of patients who are very sensitive to disgust (Reynolds et al., 2013).

DISGUST AMONG HEALTHCARE PROFESSIONALS: SOME PRELIMINARY RESULTS

Repugnance and stress

Disgust is not only felt by patients but also by healthcare professionals. However, the limits set by medical ethics makes it a delicate topic to research. Disgust and rejection of the most disgusting aspects of a disease - be it colorectal cancer or another that involves repulsive traits - generates enormous stress on health professionals (Menzies, 2002). They are supposed not to feel disgust because their professionalism allows them not to feel this way, but that is not the case. On the contrary, they have to prepare to endure it. The following quote grasps well how health professionals' dis-

¹<http://people.stern.nyu.edu/jhaidt/disgustscale.html>

gust denial is closely related to professional ethics: "Protecting the Self from the unclean and polluted Other is a reaction that every nurse experiences, from the surgical ward to the care of homeless persons. But the social (as well as the professional) constructions of nurses, in a way, forbid the verbalization of emotions such as disgust and repulsion. The caring nurse is supposed to be able to sublimate these negative feelings in order to maintain ethical standards, but behind the appearance of tolerance and calm, nurses may experience dramatic personal responses when they come into contact with particular groups of clients or particular nursing care situations, such as in public health, community health, and forensic settings" (Holmes et al., 2006: 310).

As it can be seen, nurses try to defend their physical and moral integrity from the dirty and contaminated other, while continuing to fulfill what is expected to be the responsible exercise of their profession. They must make disgust and professionalism compatible (preserving ethical standards), which could mean that they do not express their disgust, but hide it through expressions of "tolerance and calm". But this does not mean that they do not feel it, collapsing the effort to hide it into a great stress (van Dongen, 2001). In this sense, Menzies (2002: 119) offers a list of nurses' possible reactions to avoid disgust and stress:

- Breaking any personalized relationship between the nurse and the patient.
- Categorization and denial of the importance of the individual.
- Detachment and denial of own feelings and emotions.
- Try not to make decisions by clinging to routine tasks.
- Intentional lack of clarity in the distribution of responsibilities.
- Delegating to superiors.

All these points, except the last two, are closely related to the dehumanizing effect of disgust (Nussbaum, 2006), that is, with disgust to others, with the interpersonal contamination that is part of the evolution of this complex emotion (Rozin et al., 2008). In this case, however, the dehumanization aim is not to reject the person, but to be able to attend to it, which makes a huge difference with the most negative, even immoral, aspects of disgust towards others. Nevertheless, it is a defensive strategy that, in a way, could dehumanize the work of these professionals, an issue that has been highly discussed, although not expressly in its relationship with disgust (Arredondo-González, 2009). Healthcare is carried out fundamentally in contact with people. Disgust is some-

thing that health professionals cannot ignore.

Disgust compensation strategies

In this regard, in the following lines we present the preliminary results of a pilot study on how disgust affects these professionals. This type of studies is often used in the medical sciences to previously clarify the research problem, the sample characteristics or the research objectives on topics that have been scarcely investigated. In these cases, it is advisable to include approximately 30 to 50 participants who possess the attributes to be measured in the target population (Babbie, 2000).

Our pilot study was run among 30 subjects. Through an online questionnaire addressed to health professionals in October 2019, we collected information on four categories of analysis, (i) situations that caused them disgust or repugnance (ii) the triggering factor that had caused this feeling, (iii) the consequence of it (the effects on health professional) , and (iv) how the professionals reacted.

We work with two different groups: (i) 10 primary care and emergency nurses and midwives and (ii) 20 doctors from various specialties (general medicine, emergencies, allergists). In the pilot sample both sexes were represented at 50%. They worked in different public and private hospitals, all were active at the time of completing the questionnaire and we assured them total confidentiality of both their personal data (upon receiving an answer via email) and their workplace.

We are going to present preliminary results, without pretending any kind of generalization at all, on disgust management among healthcare professionals. In the case of these professionals, as previously indicated, their deontological code refers to the quality of the intervention and good treatment, so that the feeling of disgust may contradict this code and pose a barrier in front of the patient. Now, the Spanish medical deontological code says in point 3, article 5²:

"The main loyalty of the doctor is that which he owes to the patient and his/her health must take precedence over any other convenience. The doctor cannot deny assistance fearing that the patient's illness or circumstances pose a personal risk"

Thus, no barrier or impediment should affect the medical function of healing and care. Fear of illness or other circumstances, such as disgust, should not worsen the quality of professional care. However, disgust could affect health professionals somehow. In the following table –which synthesizes the results of our pilot study- we can see how:

The preliminary results of this pilot study show

²Spanish Physician's Association (2011) https://www.cgcom.es/sites/default/files/codigo_deontologia_medica.pdf (retrieved 8 May 2020). Our translation.

Table 2. Disgust and compensation strategies among healthcare professionals.

SITUATION	FACTOR THAT TRIGGERS DISGUST	CONSEQUENCE	REACTION
-Mouth exploration	-Bad body odor	-Disgust	TIME
-Physical exploration	-Halitosis	-Repugnance	(work faster)
-Auscultation	-Sweating	-Discomfort	BARRIER
-Healing a pressure ulcer	-Dirty look	-Nausea	(wear a mask, gloves, smell
-Melena	-Sweat smell,	-Fear of contagion	cologne)
- Patient defecating in an inter-	-Foot odor	-Feeling uncomfortable	
vention	-Rotten smell		DISTANCE
-Smelly leucorrhoea	-Contact with saliva and tongue,		(getting away)
-Infected abscess	-Secretions		AVOIDANCE
-Cardiopulmonary resuscitation	-Feces		(do not think, do not look)
(CPR)			

that health professionals react in different ways that we have grouped into four disgust compensation strategies as we call them:

1. **Time:** doctors reduce the exposure time to avoid disgust as soon as possible.
2. **Barrier:** putting on a protection element to isolate the fact that causes disgust (mask, cologne, gloves).
3. **Distance:** Getting away from the fact or factor that causes disgust.
4. **Avoidance:** Do not think about the factor that causes disgust, do not look at what causes disgust or think about something else.

It is important to take into account that the health professional uses one or several of them to solve the problem, but not all of them equally allow that the quality of care is not affected. Among compensation strategies not all are equally legitimate. A mask or gloves, whose usefulness is the prophylaxis and the avoidance of mutual contagion, are personal protective equipment accepted and recommended by the medical profession and, in addition, can be used to compensate disgust.

Distance and time operate in the opposite direction. They are not recommendable because could affect to effectiveness. But there is an important fact to pay attention to. They are used to a greater extent when the disgust trigger is not related to the disease itself, but with the lack of hygiene on patients' side. The sweat smell, halitosis and poor body hygiene cause disgust in most situations described by the professionals in our sample. This is often resolved with haste or trying to get away from the patient.

Thus, it seems that health professionals cope better with disgust when the origin is in the disease itself, such as an ulcer, melena, colon or vaginal examinations. However, we have linked the four compensation strategies with four attitudes that can compromise professional effectiveness to a different extent:

Level 1: Try to maintain professional efficiency with a BARRIER

Level 2: Maintaining some effectiveness, distancing oneself from the factor that triggers disgust

(distance).

Level 3: Losing professional efficiency by reducing time.

Level 4: Losing professional efficacy through avoidance (thinking about something else, not thinking) which could lead to a lack of concentration on the task.

We are not yet in a position to calibrate to what extent these behaviors affect patients' care. On the other hand, it seems clear that the lack of hygiene disgusts healthcare professionals in equal or greater measure than the more repugnant aspects of the disease itself. In this sense, a doctor in our sample added the following comment: "In general, you get used to almost everything unless it is the fault of the patient, such as lack of hygiene."

Could patient care worsen if the type of disgust that health professionals feel is related to hygiene or illness? This is something we should investigate, since the pilot study does not offer an answer.

CONCLUSION

Despite the growing knowledge about disgust and despite its close relationship with illness, there are still few empirical works linking both. The disgust felt by patients towards their wounds may lead them not to heal well. In addition, on many occasions people do not take preventive health measures because they feel disgust at checkups.

Thus, these are real problems that are not being adequately treated, because disgust is an emotion that is ignored or hidden in medical practice. Indeed, it is assumed that health professionals do not feel disgust or do not affect them, but this is not the case. Not only do they feel disgusted, but their compensation strategies (time, barriers, distance and avoidance) can affect the care they provide to patients. All in all, it is striking that professionals emphasize the possible lack of hygiene in patients, which can cause them greater disgust than the disease itself. Health professionals consider the lack of hygiene voluntary, which seems to cause them not only disgust, but also rejection of

the person who neglects their cleanliness. In any case, what this pilot study seems to point to is the importance of facing disgust to properly care for patients who, in turn, must sometimes overcome their own disgust to heal properly.

ACKNOWLEDGEMENTS

The pilot study has been carried out following the code of good practice of the Spanish Council for Scientific Research (CSIC). The authors thank the Athens Institute for Education and Research for the invitation to participate in the 3rd Annual International Forum on Ethics (4-7 May 2020, Athens, Greece) to present these results. The authors declare that they have no conflicts of interest.

REFERENCES

- ARREDONDO-GONZÁLEZ C, SILES-GONZÁLEZ J (2009) Tecnología y humanización de los cuidados. Una mirada desde la Teoría de las Relaciones Interpersonales. *Index Enfermería*, 18: 32-36.
- BABBIE E (2000) *Fundamentos de la investigación social*. México: Thomson Editores.
- BROUSE CH, BASCH CE, WOLF RL, SCHMUKLER C (2004) Barriers to colorectal cancer screening: an educational diagnosis. *J Cancer Educ*, 19: 170-173.
- CHAPMAN H, ANDERSON AK (2013) Things rank and gross in nature: A review and synthesis of moral disgust. *Psychological Bull*, 139: 300-327.
- DOUGLAS M (1966) *Purity and Danger*. London, Routledge.
- GAIND S, CLARKE A, BUTLER P (2011) The role of disgust emotions in predicting self-management in wound care. *J Wound Care*, 20: 346-350.
- GOLDENBERG JL, PYSZCZYNSKI T, GREENBERG J, SOLOMON SH, KLUCK B, CORNWELL R (2001) I am not an animal: mortality salience, disgust, and the denial of human creatureliness. *J Exp Psychol: General*, 130: 427-435.
- HAIDT J, MCCAULEY CR, ROZIN P (1994) Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, 16: 701-713.
- HAIDT J, ROZIN P, MCCAULEY CR, IMADA (1997) Body, psyche, and culture: The relationship between disgust and morality". *Psychology in Developing Societies*, 9: 108-131.
- HAIDT J, KOLLER SH, DIAS MG (1993) Affect, culture, and morality, or is it wrong to eat your dog? *J Personality Social Psychology*, 65: 613-628.
- HAIDT J (2012) *The Righteous Mind*. London, Penguin Books.
- HOLMES D, PERRON A, O'BYRNE A (2006) Understanding disgust in nursing: Abjection, self, and the other. *Res Theory Nursing Practice*, 20: 305-315.
- INBAR Y, PIZARRO D, KNOBE J, BLOOM P (2009) Disgust sensitivity predicts disapproval of gays. *Emotion*, 9: 435-439.
- KELLY D (2011) *Yuck! The Nature and Moral Significance of Disgust*. Cambridge, Mass., MIT Press.
- MCGINN C (2011) *The Meaning of Disgust*. Oxford, Oxford University Press.
- MENZIES I (2004) A case study of the functioning of social systems as a defense against anxiety In: Raftery AM, Traynor M (eds). *Exemplary Research for Nursing and Midwifery*, London, Routledge.
- MILLER W (1997) *The Anatomy of Disgust*. Cambridge, Mass., Harvard University Press.
- NAVON L (1998) Beggars, metaphors, and stigma: A missing link in the social history of leprosy. *Social History of Medicine*, 11: 89-105.
- NUSSBAUM M (2004) *Hiding from Humanity. Disgust, Shame, and the Law*. Princeton, Princeton University Press.
- OATEN M, STEVENSON RJ, CASE TI (2009) Disgust as a disease-avoidance mechanism. *Psychological Bulletin*, 135: 303-321.
- O'SULLIVAN I, ORBEL S (2004) Self-sampling in screening to reduce mortality from colorectal cancer: a qualitative exploration of the decision to complete a faecal occult blood test (FOBT). *J Med Screening*, 11: 16-22.
- REYNOLDS L, CONSEDINE N, PIZARRO D, BISSET I (2013) Disgust and behavioral avoidance in colorectal cancer screening and treatment. A systematic review and research agenda. *Cancer Nursing*, 36(2): 122-130.
- ROZIN P, HAIDT J, MCCAULEY CR (2000) Disgust: The body and soul emotion in the 21st century. In: McKay D, Olatunji O (eds). *Disgust and its disorders*. Washington DC, American Psychological Association.
- ROZIN P, HAIDT J, MCCAULEY CR (2008) Disgust. In: Lewis M, Haviland JM (eds). *Handbook of Emotions* 3rd edition. New York, Guilford.
- ROZIN P, HAIDT J (2013) The domains of disgust and their origins: contrasting biological and cultural evolutionary accounts. *Trends Cognitive Sci*, 17: 367-368.
- SCHNALL S, HAIDT J, CLORE G, JORDAN A (2008) Disgust as embodiment moral judgment. *Personality Social Psychology Bull*, 34: 1096-1109.
- TYBUR J (2009) *Disgust Dissected: An Investigation of the Three Domain Disgust Scale*. Dissertation, The University of New Mexico. UMI 3369617.
- VAN DONGEN E (2001) It isn't something to yodel about, but it exists! Faeces, nurses, social relations and status within a mental hospital. *Aging Mental Health*, 5: 205-215.
- WORTHLEY DL, COLE SR, ESTERMAN A (2006) Screening for colorectal cancer by faecal occult blood test: why people choose to refuse. *Int Med J*, 36(9): 607-610.

Disgust in eating disorders, a basic emotion

Mónica Portillo¹, Marina Núñez², Mara Segura¹

¹Hospital Universitario de la Ribera, Alcira, Valencia

²Facultad de Bellas Artes de Pontevedra, Universidad de Vigo, Vigo, Spain

SUMMARY

The cognitive and emotional factors linked to the body image perceived by people with eating disorders and obesity can be so negative. Even, they lead to inappropriate behaviors and surgical treatments and interventions that involve health risks.

As an inducing emotion, Disgust appears frequently linked to both the body and other factors related to eating disorders.

Key words: Disgust – Obesity – Eating disorders – Emotions – Emotional regulation

AN INTRODUCTION EATING DISORDERS AND CURRENT OUTLOOK

Eating disorders are psychological disorders characterised by altered behaviour in response to intake and continuous efforts to control weight and body shape (Grupo de trabajo de la Guía de Práctica Clínica sobre Trastornos de la Conducta Alimentaria, 2009). It encompasses a psychopathological pattern which includes cognitive and emotional factors linked in large part to perceived body image, such as a desire and wish to change one's perceived body image, also what is considered useful to achieve this image and what is considered 'Dangerous' for it. Historically, anorexia nervosa (AN) and bulimia nervosa (BN) have been considered the main diagnoses. In the 17th century, Richard Morton was the first to define Anorexia Nervosa (1689). He discovered two patients who showed similar symptoms which today would fall

under the diagnosis of Anorexia Nervosa, naming it "nervous consumption" (Rausch-Herscovici and Bay, 1991). In 1874, Gull used the term "Anorexia Nervosa" to refer to the symptoms which currently we consider essential in diagnosis (Raich, 1998). Even though research in this field started at this point, the modern description of anorexia nervosa is credited to Hilde Bruch (1978) (Fig. 1).

Bulimia Nervosa appears more recently in the literature, specifically at the beginning of the 19th century. The term "Bulimia" had been used previously but up to this point it hadn't been associated with the current meaning (Russell, 1979). Gerald Russel established a diagnostic foundation and described the characteristics of the current framework. From this point on there is an increase in the number of studies related to the field and for the first time the diagnostic criteria for Bulimia Nervosa were included in the DSM-III. (Raich, 1998). Recently, a new diagnostic has been considered as a separate eating disorder, known as binge eating disorder (BED). The first mention of this disorder



Fig 1. Death (1996) Oil on Canvas, 158x275 cm. Núñez, Marina.

Corresponding author: Mónica Portillo Santamaría. Hospital Universitario de la Ribera, Alcira, Valencia, Spain. Phone: 0034 605866941.

E-mail: monicaportillo027@gmail.com

der was in 1959 when Stunkard, a psychiatrist who was developing research on obese patients, used the term to refer to the eating pattern these patients. It is characterised by the intake of large quantities of food in short intervals, followed by feelings of guilt, discomfort and attempts at dieting. However, it was not considered a main diagnosis until the publication of DSM-5 in 2013 (Kupfer et al., 2014) (Fig. 2).

Currently, the latest version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) (Kupfer et al., 2014) considers anorexia nervosa, bulimia nervosa and binge eating as main diagnosis with their own definitions. The defining characteristic of AN is an extreme concern for weight and body image, as well as a voluntary restriction of intake resulting in being significantly underweight for their age, sex, development stage, physical health, and which is under the normal minimum or, in children and teens, the expected minimum weight. All of which is accompanied by an intense fear of the possibility of gaining weight or of becoming obese, a fear which, does not diminish even when the patient is underweight, a skewed perspective of their body image leading to

erroneous estimate of their weight and size, as well as an exaggeration of the importance of weight in their self evaluation. Furthermore, it is important to highlight a characteristic which is not found in the diagnostic manuals, most patients experience their symptoms as egosyntonic, which frequently is observed as denial towards their disorder (Herpertz-Dahlmann et al., 2012). Patients with AN are six times more likely to die by means of any cause than the general population and have a higher risk of other eating disorders (Papadopoulos et al., 2009). Also patients with AN may show signs of several medical complications in the short term (e.g. dizziness, headaches or cold spells), as well as in the long term (e.g. osteoporosis, cardiovascular problems or diabetes mellitus) (Fig. 3).

The main characteristic of BN is a pattern of recurring binge eating along with inappropriate behaviour to control weight and body figure. Binge eating consists of the intake of a large amount of food over the period of a short time, in which one feels a loss of control of food intake. Normally resulting in an enormous feeling of guilt which drives one to try to compensate for the effects of binge eating by means of self-induced vomiting, grueling exercise, and excessive use of laxatives, diuretics, enemas, or other drugs. Patients with this disorder can maintain a normal weight or even above normal weight, however they continue to be overly concerned with their figure and weight (Perpiña et al., 2004).

BED is characterised by bingeing episodes, frequently triggered by negative emotional states (anxiety, sadness, boredom...). Binging is followed by feelings of guilt, just as patients with BN, however in this case the patient does not show behaviour to compensate for bingeing. Binge episodes result most commonly in weight gain and in many cases obesity and disgust for one's own body image.

In all three disorders, a substantive amount of distress for not having an ideal body shape is



Fig 2. Science Fiction (2007) Oil on Synthetic Leather, 143x79,5 cm. Núñez, Marina.



Fig 3. Madness (1997) Oil on Canvas, 106x190 cm. Núñez, Marina.



Fig 4. Screenshot "Too Much World (1)", 2010, Single Channel Video, 1'6". Núñez, Marina.

shown. A considerable effort is made to achieve this body type. Patients show the willingness to renounce all types of stimulus that pose a threat to their objective, and will undergo an innumerable amount of methods to do so (vomiting, negligible amounts of intake throughout the day, excessive amounts of exercise, surgical procedures...) (Fig. 4).

In the formation of body image, the human body is defined as a biological and symbolic structure, susceptible to a variety of different interpretations and perspectives (Ahedo, 2010). Because of this the difficulty of 'being objective' arises which is necessary to put an end to certain behaviours categorised as pathological with the objective of weight loss because of the inability to stand one's own body image.

Body image is a symbolic structure situated in the biological body; it is dynamic and changing. It provides us with a personalised and subjective experience, it is not static; rather it is modified in relationship with development and the changes it undergoes throughout one's life. (Costa and Guthrie, 1994).

Linked to the above, but not determined by it, eating disorders and obesity are considered by many authors as two poles on the same continuum, leading to the consideration of another diagnostic scope with the name of "extreme weight conditions" (Neumark-Sztainer, 2007). This consideration is based on all the problems that may be present in an individual at one time, appear in different moments of the patients life or increase in severity overtime (Neumark-Sztainer, 2006). The motive is not the changing dynamic of one's body image, rather the painstaking effort patients go through to lose weight, which is impossible to maintain for most. Consequently, most go between restrictive periods and other periods with a complete lack of control. Often achieving a changing body image on both extremes, ranging from being



Fig 5. Science Fiction (2010) Digital Image on Canvas, 180x270 cm. Núñez, Marina.

thin to being considerably overweight.

Another disease in which body image is considered essential is obesity, in that it makes one feel considerably ill. It is not currently considered a mental disorder but rather a chronic illness which is difficult to treat by means of medical and psychological intervention, and is associated with some psychiatric problems, especially affective and eating disorders. According to World health organization (WHO) obesity is defined as an abnormal and excessive accumulation of fat harmful to one's health and manifested as an excess of weight and body volume, with a body mass index above 30. At present, obesity has become widespread recently and is around 13% prevalence. In the case of obesity we are not talking about a distortion of body image, rather a major influence on the quality of life and emotional state of people because of their body image.

One common denominator among those who develop a diagnostic of eating disorder is the almost continuous presence of negative emotions in respect to their body and physical appearance. Not allowing them to accept themselves as they are, resulting in an innumerable amount of behaviours with the purpose of changing their physical appearance while looking for a better perception of themselves (Fig. 5). All self-worth is placed on the overestimation of the body or some more specific parts of the body, the rest of the person seems to be non-existent and is wildly under-appreciated (Fig. 6).



Fig 6. Science Fiction (2001/2007) Digital Image on Paper, 81x191 cm. Núñez, Marina.



Fig 7. Monsters (2011) Digital Image on Paper, 105x140 cm. Núñez, Marina.

These behaviours, have the main purpose of reducing weight, focusing their dislike on the number on the scale. However, we can see that even though one achieves their ideal weight, patients never see themselves as better, nor thinner, nor more attractive. Rather the complete opposite is true, patients enter in a cycle in which they still need to lose more weight, do more exercise, eat less, vomit more and take more laxatives; each time distorting even more one's body image (Fig. 7).

When you ask patients to describe themselves physically, they usually give descriptions such as: "I'm fat", "my thighs are huge", "it seems like I'm going to explode", "I hate the way my stomach looks." When you ask what parts of their body patients would keep and they like, some cannot think of even one part and others might mention some parts of their face.

When asked about emotional reactions to their body, they describe feelings such as "I feel disgusted with myself and my body, sad and frustrated" one patient described just before a stomach operation, "disgust at seeing myself so fat, the folds on my stomach, and still, my belly comes out over the top of my pants. Seeing myself so different and that I didn't feel like taking care of myself, because no matter how much I did, I could never achieve my goal. I also felt disgusted with myself because when others saw me and thought I was a fat and overweight" (Fig. 8). When asked about other feelings in regards to their body the same patient continued to explain "I couldn't continue to feel that way, looking at myself in the mirror and not recognising myself. Also being disgusted with myself when they looked at me, sad when I thought about how I looked before and most of all frustrated because I am not able to lose weight."

Another patient described her feelings similarly, "It's true that lately I've felt bad about myself, I had huge hips and a big butt. My clothes no longer fit nor did I like the way they looked on me...I had a



Fig 8. Fotograma de "Ofelia (Inés)", 2015, Single Channel Video, Sound, 2'. Núñez, Marina.

stomach that I never had before, I think it was because of the alcohol...I don't know. I felt bad and I no longer recognised myself in the mirror...and my husband didn't recognise me either." When I asked her to describe in more detail how her body made her feel she said, "Mostly sad and disgusted with what I had become. I had never been like this before, and the truth is I didn't mind much...but lately I went too far, mostly my stomach, it just wasn't normal anymore (Fig. 9).



Fig 9. Monsters (1997) Oil on Linen, 235x136 cm. Núñez, Marina.

Disgust is one of the emotions patients continuously mention in regards to their body, feeling a rejection towards their body which prevents them from correctly taking care of themselves and allows them a certain “kind of abuse” by means of the above mentioned mediums (purges, inaction, excessive exercise...). Without being able to transform that feeling of rejection towards their own body.

Disgust has been defined as a basic emotion, along with happiness, surprise, fear, sadness and rage. Disgust, consists in revulsion of a potentially repulsive object when faced with its oral incorporation, repulsive objects are contaminating and once in contact, however brief, contaminated objects become unacceptable (Valiente et al., 2003).

We observe disgust as a feeling towards food in people with eating disorder. It is very common to hear this feeling expressed towards high calorie foods in people with Anorexia and towards food intake after a binge in patients with this type of behaviour. However, these patients add a new connotation to this feeling and is independent from food intake and focused on one's own body, or on specific body parts. In this regard, it has been shown that patients with eating disorders are more sensitive to disgust related to food but also disgust with all which is related to the body and sex.

As suggested by many authors, disgust permeates the view patients have of their body shape with negative affectivity (Davey and Chapman, 2009), thus affecting the most common pathological responses associated with eating disorders (malnutrition, purges, among others). In fact, disgust and general negative affectivity are two of the variables which contribute significantly to the prognosis of eating psychopathology (Chorot et al., 2013).

TECHNIQUES USED TO DIMINISH THE FEELING OF DISGUST AND OTHER EMOTIONS CAUSED BY THE BODY

Disgust which is felt towards their body drives patients with eating disorders and obesity to try and change their body image, lose weight and change their body shape by means of a variety of behaviours (food restriction, purging, avoidance, excessive exercise). What's more, to manage disgust and other undesirable emotions which are intolerable (such as anger, fear or sadness) patients with eating disorders use dysfunctional strategies to regulate their emotions as well as the symptoms of their disorder. Specifically, eating disorder patients with restrictive food symptoms and excessive exercise helps them feel more successful and in control, often feeling highly valued emotions such as “pride” (Penas-Lledó et al., 2002). Patients with symptoms of bingeing/purging, bingeing distracts from negative thoughts and un-

bearable images, negative beliefs about themselves and unacceptable emotional states (Cooper et al., 1998). Self-inflicted vomiting and the use of laxatives/diuretics help them manage guilt and disgust towards themselves, generated by acting against their values and goals after bingeing. In this way, eating behaviour is used as a medium of internal control to suppress and reduce negative emotional states, among those being disgust towards their body and respect for themselves (Cooper and Fairburn, 2003; Fairburn et al., 2003). On the other hand, patients with obesity use food as a strategy to manage unpleasant emotions, seeing a positive relationship between emotional suppression and caloric intake (Svaldi et al., 2014). However, the differences in characteristics between patients in regard to those with eating disorders try to manage disgust and other undesirable emotional states, by means of external control. In this respect, patients with obesity look for help with a variety of professionals (e.g. doctors, nutritionists, personal trainers) to lose weight and maintain their weight on the long run by means of diets and lifestyle changes. Despite several failed attempts at achieving their goals these patients look for the fastest and most effective way to change their body through invasive procedures, which by themselves create unpleasant emotions such as fear and disgust. Yet still, they are able to overcome these aversive emotions, with the belief that they will be able to reach their goal quickly and easily, often allowing themselves to be led on by magical thinking. Among the procedures used are: intragastric balloon, gastric bypass, endoscopic surgery for obesity without incisions and more recently, external bypass surgery.

With the intragastric balloon procedure a balloon is introduced by means of an endoscope and a light, moderate or general anaesthesia depending on the characteristics of the patient. The balloon is usually sphere shaped, with a silicon cover and full of physiological serum. With this procedure the stomach holds less and produces the feeling of being full sooner. The patient has the balloon for around six months and a change in lifestyle and eating habits is recommended. In a gastric bypass procedure the useful size of the stomach and the small intestine are reduced through surgery, with the purpose of reducing the digestion of ingested food, producing the sensation of being full more quickly and reducing the production of insulin. It is appropriate for patients with an BMI of 45 kg/m², and is not without risk for the patient. Endoscopic surgery without incisions is a less invasive option than the latter and is appropriate for patients with a BMI of 27 and 40 kg/m². It is carried out by making a series of folds in the gastric fundus and the pyloric antrum by means of endoscopy to reduce the capacity of the stomach and slow its emptying. It is carried out under general anaesthesia and last approximately 50 minutes.

Over the last few years external bypass has been developed for patients with morbid obesity (BMI>40 kg/m²). Through this procedure the patient can suction up and empty a third of the food the stomach contains (25-35% of ingested calories). The implant requires the patient to undergo surgery with local anaesthesia in which a food tube is fed orally to the stomach and will be connected to an external suction device, through a hole or access port on the abdomen between 1 a 2 cm in size. Patients are told that with this device there will be no need for restrictive diets, however they are asked to make the effort to eat slowly and properly chew their food so the device can be suctioned correctly. Suctioning is done by the patient 20 minutes after eating, it empties the contents of the stomach through the abdomen and takes between 5-10 minutes. Medical follow-up, oriented towards the change of eating habits is also recommended. External bypass is proposed as a reversible procedure even though it is a long term treatment, lasting at least a year and half. The procedure is consider finished when the patient has lost weight and a change of eating habits has occurred.

All of these techniques require effort and imply risk for the health of the patient. In addition, they are treatments that generate emotions such as fear, and disgust; depending on the procedure and the role the patient plays (e.g. emptying the stomach through the abdomen). Even so, the motives that leads one to resort to these types of interventions seem more than enough reason to overcome the inconveniences that go along with them.

REFERENCES

- AHEDO R (2010) Melancolía, asco y lenguaje corporal en la anorexia. *Ciencia Ergo Sum*, 17 (1): 8-18.
- BRUCH H (1978) *The golden cage*. Cambridge MA: Harvard University Press
- CHOROT P, VALIENTE RM, SANTÍN B, SANTED MA, OLMEDO M (2013) Sensibilidad al asco y síntomas de los trastornos alimentarios: un estudio transversal y prospectivo. *Cuadernos de Medicina Psicosomática y Psiquiatría de enlace*, 108: 17-30.
- COOPER JM, TODD G, WELLS A (1998) Content, origins, and consequences of dysfunctional beliefs in anorexia nervosa and bulimia nervosa. *J Cognitive Psychotherapy*, 12: 213-230.
- COOPER Z, FAIRBURN C (2003) Refining the definition of binge eating disorder and nonpurging bulimia nervosa. *Int J Eating Disorders*, 34: 89-95.
- COSTA DM, GUTHRIE SR (1994) *Women and sport: interdisciplinary perspectives*. United States: Human Kinetics.
- DAVEY GCL, CHAPMAN L (2009) Disgust and eating disorder symptomatology in a non-clinical population: The role of trait anxiety and anxiety sensitivity. *Clin Psychol Psychother*, 16: 268-275.
- FAIRBURN CG, MARCUS MD, WILSON GT (2003) Cognitive behaviour therapy for binge eating and bulimia nervosa: A comprehensive treatment manual. In: Fairburn CG, Wilson GT (eds). *Binge eating: Nature, assessment, and treatment*. New York: Guilford Press, pp. 361-404.
- GRUPO DE TRABAJO DE LA GUÍA DE PRÁCTICA CLÍNICA SOBRE TRASTORNOS DE LA CONDUCTA ALIMENTARIA (2009) *Guía de Práctica Clínica sobre Trastornos de la Conducta Alimentaria*. Madrid: Plan de Calidad para el Sistema Nacional de Salud del Ministerio de Sanidad y Consumo. Agència d'Avaluació de Tecnologia i Recerca Mèdiques de Catalunya.
- HERPERTZ-DAHLMANN B, HOLTkamp K, KONRAD K (2012) Eating disorders: anorexia and bulimia nervosa. *Handbook of Clinical Neurology*, 106: 447-160.
- KUPFER DJ et al (2014) *Diagnostic and statistical manual of mental disorders (5th ed.)*. Madrid: Editorial Médica Panamericana.
- NEUMARK-SZTAINER D, WALL M, HAINES J, STORY M, SHERWOOD N, VAN DEN BERG P (2007) Shared risk and protective factors for overweight and disordered eating in adolescents. *Amer J Prevent Med*, 33 (5).
- NEUMARK-SZTAINER D, WALL M, EISENBERG ME, STORY M, HANNAN PJ (2006) Overweight status and weight control behaviors in adolescents: Longitudinal and secular trends from 1999-2004. *Prevent Med*, 43: 52-59.
- PAPADOPOULOS FC, EKBOM A, BRANDT L, EKSELIUS L (2009) Excess mortality, causes of death and prognostic factors in anorexia nervosa. *Brit J Psychiatry*, 194(1): 10-17.
- PENAS-LLEDÓ E, VAZ F, WALLER G (2002) Excessive exercise in anorexia nervosa and bulimia nervosa: relation to eating characteristics and general psychopathology. *Int J Eating Disorders*, 31(4): 370-375.
- PERPIÑA C, MARCO J, BOTELLA C, BAÑOS R (2004) Tratamiento de la imagen corporal en los Trastornos alimentarios mediante tratamiento cognitivo-comportamental apoyado con realidad virtual: resultados al año de seguimiento. *Psicología conductual*, 519 -537.
- RAICH R (1998) *Anorexia y bulimia: Trastornos alimentarios*. Madrid: Pirámide.
- RAUSCH-HERSCOVICI C, BAY L (1991) *Anorexia nerviosa y bulimia. Amenazas a la autonomía*. Buenos Aires: Paidós.
- RUSSELL G (1979) Bulimia nervosa: an ominous variant of anorexia nervosa. *Psychological Med*, 9(3): 429-448.
- STUNKARD AJ (1959) Eating patterns and obesity. *The Psychiatric Quaterly*, 33: 284-295.
- SVALDI J, TUSCHEN-CAFFIER B, TRENTOWSKA M, CAFFIER D, NAUMANN E (2014) Differential caloric intake in overweight females with and without binge eating: Effects of a laboratory-based emotion-regulation training. *Behav Res Ther*, 56: 39-46.

Author Index

A

Aranda D.	15
Aguiar F.	63

B

Biernoff S.	29
------------------	----

C

Cruz P. A.	23
-----------------	----

K

Kerguelén I. D.	I
----------------------	---

L

López G.	39
Luis-Martínez, Z.	51

M

Montiel L.	01
Maruri A.	15

N

Núñez M.	69
---------------	----

P

Portillo M.	69
------------------	----

S

Sotomayor E.	63
Segura M.	69

European Journal of Anatomy

Volume 24 · Supplement 1 · August 2020

CONTENTS

Presentation

- About Disgust: a brief introduction
Ivonne Donado Kerguelén 01

Original articles

- Salubrious disgust: excrement therapy in Eighteenth-century Medicine
Luis Montiel 07
- Sick skin. The history of the dermatological representations in Olavide Museum
Amaya Maruri, David Aranda 15
- Blood and pollution visualisations of menstrual flow in contemporary art
Pedro A. Cruz 23
- Face transplantation and the anatomy of facelessness
Suzannah Biernoff 29
- The faces of disgust. Death masks of famous and infamous
Gorka López 39
- "A Weight of Carrion Flesh": Measuring Disgust, Shakespearean Mimesis
Zenón Luis-Martínez 51
- Illness and disgust. Compensation strategies of patients and healthcare professionals
Eva Sotomayor, Fernando Aguiar 63
- Disgust in eating disorders, a basic emotion
Mónica Portillo, Marina Núñez, Mara Segura 69
- Author Index 75

Cover image: Madness (1997) Oil on Canvas, 106x190 cm. Núñez, Marina

ISSN: 1136-4890



9 771136 489007