

Ugliness Is in the Gut of the Beholder

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Abstract: I offer the first sustained defence of the claim that ugliness is constituted by the disposition to disgust. I advance three main lines of argument in support of this thesis. First, ugliness and disgustingness tend to lie in the same kinds of things and properties (the argument from ostensions). Second, the thesis is better placed than all existing accounts to accommodate the following facts: ugliness is narrowly and systematically distributed in a heterogenous set of things, ugliness is sometimes enjoyed, and ugliness sits opposed to beauty across a neutral midpoint (the argument from proposed intensions). And third, ugliness and disgustingness function in the same way in both giving rise to representations of contamination (the argument from the law of contagion). In making these arguments, I show why prominent objections to the thesis do not succeed, cast light on some of the artistic functions of ugliness, and, in addition, demonstrate why a dispositional account of disgustingness is correct, and present a novel problem for warrant-based accounts of disgustingness (the ‘too many reasons’ problem).

Keywords: ugliness; disgust; response-dependence; emotion-linked evaluative properties; aesthetic properties; thick properties; paradox of negative affect; wrong-reasons problem; disinterest; somaesthetics; beauty; elevation; horrifying; uncanniness.

§1 Introduction

What is ugliness? Contemporary philosophical work on ugliness has, prematurely, arrived at the conclusion that ugliness is too nebulous a property to admit of a satisfactory closed account. In his survey of the history of philosophical work on ugliness in the *Encyclopaedia of Aesthetics*, Ronald Moore (1998: 417) observes that “it seems apparent that ugliness cannot be abstractly identified with some set of characteristics common and peculiar to all ugly objects.” The most prominent recent work on ugliness has followed in this vein, with Sibley (2001) advocating for a radically disjunctive and open account, Brady (2013: 175) noting that “ugliness is not reducible to one property or another,” and Paris (2017) plumbing for a sufficient account in the face of the difficulties that confront closed accounts.

Against this backdrop, disgust has widely been thought to be intimately related to ugliness. Philosophers such as G.E. Moore (1903/1922) and Bartlett (1937), for example, claim that the *ugliest* things are disgusting, and Eco (2007) suggests that disgust is sufficient for ugliness. Artists, art theorists and other philosophers, such as Hutchinson (2002), Cousins (1994, 1995), and Dewey (1934: 96), have suggested that disgust is the *proper* response to ugliness. Indeed, even the strongest conception of the relationship between disgust and ugliness—namely, that ugliness is disgustingness, as is implied at points by e.g. Bayley (2012) and Lessing (1766/1905), and as has been attributed to Kant (e.g. Thomson 1992)—has looked so plausible *prima facie* that this conception has been thought worthy of formulating objections to by two of the most prominent recent philosophers of ugliness—Frank Sibley (2001) and Emily Brady (2011).

In this paper, I suggest that the cure for philosophers’ pessimism about finding a satisfactory closed account of ugliness lies in disgust. To that end, I offer the first sustained defence of the strongest conception of the connection, namely, that:

Ugliness-Disgustingness: An object, O, is ugly for person, P, if and only if O is disgusting to P in standard conditions.

Where,

Disgustingness-Disgust: An object, O, is disgusting to person, P, if and only if O elicits disgust (*qua* activates the disgust system) in P in standard conditions.

I claim that these biconditionals are not only true, but that they have a left-to-right order-of-determination: something is truly ugly and disgusting for someone *just because* it activates their disgust system and not the other way around. On this account, the tendency to talk about judgements and faculties of “taste” with regard to aesthetic matters is more than just a metaphor, at least where such utterances concern the ugly.

It is important to stress three points in relation to these claims from the outset. First, it is important to emphasize that, as response-dependent claims, these claims do not imply that something cannot be truly *judged* to be ugly and disgusting without eliciting disgust. The only idea entailed is that it is eliciting disgust under standard conditions that *makes* something truly ugly and disgusting, such that there is *no higher court of appeal* about whether something is ugly and disgusting for someone than when the standard conditions hold. Second, I intend the claims to be true *a posteriori*, rather than *a priori* as is often assumed of response-dependent claims.¹ That is to say, I don’t hold that these claims are part of the meaning of the concepts UGLINESS and DISGUSTINGNESS and therefore analytically true. Rather, they are something we can know to be true through empirical investigation and inference to the best explanation. Indeed, as we will see, parts of the biconditionals—such as the standard conditions—need to be specified in light of the best evidence of the way disgust functions. Third, like all philosophers of ugliness, I intend ‘ugliness’ here to express a thick property. That is to say, I do not intend to capture thin usages of ‘ugliness’ and related terms—such as cases where people talk about ‘ugly hunting’ where they mean merely bad hunting (as Sibley 2001 notes), or where ‘ugliness’ is used to refer to any feature of an artwork that makes it bad *as art*. Substitution provides a convenient, if rough, way of deciding whether we are dealing with a thin or thick usage: if ‘ugliness’ could be replaced by any merely disapprobatory term, such as ‘awful’ or ‘bad,’ without any substantive change in meaning, then we are likely dealing with a thin usage.

In this paper, I pursue two broad strategies. The first strategy, which I use to argue in favour of both *Ugliness-Disgustingness* and *Disgustingness-Disgust*, is to examine what ugliness and disgustingness reside in. The second strategy, which I use to argue in favour of *Ugliness-Disgustingness* specifically, is to examine how ugliness and disgustingness function. Taking stock of the arguments deployed in the main body of the article, I conclude by submitting that when the *arguments are taken collectively*, it should be clear that *Ugliness-Disgustingness* is the most extensionally and logically adequate, and explanatorily potent, account of ugliness available, and so should be accepted.

The view of ugliness defended here is not just important for illuminating the nature of one of the cardinal aesthetic properties, but also for the consequences it has for debates in philosophical aesthetics concerning the nature of beauty, the role of disinterestedness in aesthetic and artistic appreciation, the paradoxes of negative affect, the nature of aesthetic properties such as the horrifying and the uncanny, and the relationship between the aesthetic and moral domains. Moreover, in presenting a novel problem for one sophisticated warrant-based account of disgustingness (the ‘too many reasons’ problem) and in showing that dispositional accounts of disgustingness are able to accommodate normative uses of ‘disgusting’—points which may generalize, *mutatis mutandis*, to other emotion-linked evaluative properties and warrant-based accounts—the arguments deployed here should also be of interest to those working outside the purview of philosophical aesthetics.

Before pursuing these strategies, one methodological note is required. While the two theses defended here are about the properties of ugliness and disgustingness and *not* analyses of the concepts UGLINESS and DISGUSTINGNESS respectively, the strategies pursued in this paper feature some of the methods that are commonly deployed to assess conceptual proposals: for example, submitting a proposal to trial-by-counterexample, and seeing how a proposal accords with the use of language. Since it is plausible that the use of language, and our intuitions about putative counterexamples, at least often track the property of ugliness, albeit imperfectly, there is nothing remiss in pursuing this methodology. Indeed, in this regard, I follow Railton (1989), who rightly notes that *a priori* tools—such as deploying Moorean open-questions—are valuable in assessing a given account of a property in highlighting where such an account would require revision of the existing concept that is thought to express the property in question. Indeed, in the event that one or more intuitions or uses of language are thought to count against *Ugliness-Disgustingness*, in particular, I suggest that these would need to be weighed against *Ugliness-Disgustingness*’ collective benefits, and if the scales were found to tip in favour of *Ugliness-Disgustingness*, revision of the concept UGLINESS should be considered.

§2 The Argument from Ostensions

¹ See Miscevic (1998) for convincing arguments for the aposteriority of response-dependence generally.

The first argument that will be made in favour of *Ugliness-Disgustingness* exploits the transitivity between *Ugliness-Disgustingness* and *Disgustingness-Disgust*: If ugliness is disgustingness, and disgustingness is that which elicits disgust, then by the law of transitivity, ugliness is that which elicits disgust.² On this basis, in §2.1, I show that when we list the things that have been observed to reliably tend to be ugly and tend to elicit disgust, we find that, with one apparent group of exceptions, they match.

With regard to this group of exceptions, in §2.2, I suggest that while these cases *prima facie* seem to be cases of ugliness where the ugliness seems to lie in a property which is not that of eliciting disgust, the relevant evidence suggests that this is not the case. Such cases are, in fact, only ugly to the extent that they elicit disgust. In showing that this is the case, my discussion also illuminates how certain cases of artistic ugliness achieve the specific functions they are intended to perform.

I argue that the best explanation of the fact that the ostensions of the ugly and the disgust-eliciting are the same is that *Ugliness-Disgustingness* is true. In addition to providing an argument for *Ugliness-Disgustingness*, this section establishes both the range and limits of ugly and disgusting things for the arguments that will be laid out in §3 and §4.

§2.1 *The Ostensions of the Ugly and the Disgust-Eliciting*

Disgust is a basic emotion which is characterized, paradigmatically, by feelings related to nausea (Tracy et al. 2019); a sense of oral incorporation of something offensive, and of the need to orally expel (Rozin & Fallon 1987); the ‘gape’ expression of a wrinkled nose, furrowed brow, and raising of the upper lip (Rozin et al. 2004); sympathetic-parasympathetic coactivation of the autonomic nervous system, including reduced blood pressure, heart rate deceleration, faster breathing and decreased inspiration (Stark et al. 2005; Ritz et al. 2005; Kreibitz 2010: 403); the tendency to avoid the offending object and want to purify oneself (e.g. Rozin et al. 2008); and psychological representations of the object that is perceived to be the cause of disgust as contaminating (Rozin et al. 2008). Disgust is thought to have evolved from the distaste response (Rozin & Fallon 1987; Kelly 2011) to defend us from toxins and physical contaminants—and in particular pathogens (Curtis & Biran, 2001)—as well as moral, social and spiritual contamination (Rozin et al. 2008).

An examination of the research which has sought to establish what is found to disgust reveals that, despite a good measure of variation, some kinds of things and properties tend to *reliably* elicit disgust within and across cultures.

When you ask people from across cultures to list the things that elicit disgust in them, their responses reveal that disgust is most consistently and obviously elicited by: bodily products—including faeces, mucus, pus, flatulence, and other bodily products (Haidt et al. 1994; Curtis & Biran 2001; Tybur et al. 2009); what might be called ‘ideal bodily envelope violations’—including cases of surgery, puncture wounds, and developmental deformities (Haidt et al. 1994; Curtis & Biran 2001; Kleinknecht et al. 1997); death and decomposition, including spoiled food and sensory properties that tend to accompany these such as sliminess, pallidness, and malodour (Haidt et al. 1994; Curtis & Biran 2001; Tybur et al. 2009; Kleinknecht et al. 1997); disease, dirt, and parasitic infection, including sensory properties that tend to accompany these such as having clusters of holes (Haidt et al. 1994; Curtis & Biran 2001; Tybur et al. 2009; Kupfer & Le 2018); ‘low’ animals—including the scaly, the hairy, the slimy, the crawly and the generally inferior such as some insects, annelids, rodents, arachnids, amphibians and reptiles (e.g. Haidt et al. 1994; Kleinknecht et al. 1997; Curtis & Biran 2001; Frynta et al. 2019; Davey et al. 1998); and socio-moral violations such as selfishness, deceptiveness, and acts displaying excess, immodesty or impurity (e.g. Haidt et al. 1994; Tybur et al. 2009).³

In addition to these findings, a range of studies that do not rely on people *recalling* things that disgust them, and so will not be as biased towards reflecting the most obvious elicitors, reveal that disgust is felt towards a greater

² I argue in this manner because, in making this argument, I draw on a great deal of the psychological research on disgust, and much of this work seeks to establish what does in fact tend to give rise to disgust, rather than what is disgusting. With that said, the instruments that have been designed to investigate what does in fact disgust often mix the two issues together—with most instruments including items measuring what people tend to be *disgusted* by and items asking people what they *find disgusting* (e.g. Haidt et al.’s, 1994; Olatunji, Williams, et al.’s, 2007; Tybur et al.’s, 2009; and Kleinknecht et al.’s, 1997). Since I hold that the disgusting just is that which disgusts (see §3.1.1), if one takes this research to reflect what is disgusting, then the argument in this section can be thought to work without transitivity.

³ Some have argued that verbal and facial expressions of disgust in response to moral violations merely indicate metaphorical usage or social signalling (see e.g., Nabi, 2002; Royzman & Kurzban, 2011). While these explanations are surely correct in some cases, they do not explain all of the relevant evidence. Moral violations have been shown to activate the same neural substrates as other disgusting things (e.g. Sanfey et al., 2003) and to give rise to all of the main functional outputs of disgust, including the ‘gape’ expression (Chapman et al., 2009), feelings of disgust (Fileva, 2020), and representations of contamination (e.g. Tapp & Occhipinti, 2016).

range of entities, including: what might be termed ‘*merely anomalous*’ entities such as obese people (e.g. Liberman et al. 2012), slightly unattractive people who do not show signs of occurrent or historic disease (e.g. Klebl et al., 2020; Krendl et al. 2006), people with ‘disfigurements’ such as birthmarks (e.g. Ryan et al. 2012); ugly architecture (Klebl et al. 2020); ugly plants (Doran n.d. a); cacophonous sounds (e.g. Power & Dalglish, 2016: 102); and even people from outgroups, including racial outgroups (e.g. Navarrete & Fessler 2006; Oaten et al. 2011; Matthews & Levin 2012; Hodson et al. 2013).

Turning to ugliness, based on the old saws “beauty is in the eye of the beholder” and “there’s no accounting for taste,” one could be forgiven for thinking that there is such diversity in aesthetic matters that there are no patterns to be found in what is ugly within cultures, let alone between cultures.

However, despite some variation, an examination of the writings of philosophers, artists, art critics, anthropologists, and psychologists who have written about what tends to be ugly and why, reveals that the same kinds of things and properties that tend to disgust also tend to reliably be found to be ugly within and across cultures, with one group of exceptions.

With regard to ‘ideal bodily envelope violations’: Sibley (2001: 199) mentions the “stunted,” “distorted,” “mutilated,” “dwarfed,” and “emaciated”; Brady (2011: 92) mentions the ugliness of the violence and bloodiness of predation; and Hettinger (2010: 123-4) describes the ugliness of acquired and natural deformities, including amphibians with missing or malformed digits and the genetically modified “Beltsville pigs” who had deformed heads (see also e.g. Burke 1759/1990: 93; Bosanquet 1889: 45; Paris 2017: 141; Rosenkranz 1853/2015: e.g. 39, 41, 73; Bayley 2012: e.g. 86, 135, 206; Eco 2007: e.g. 49, 51; Lessing 1766/1905: 176, 184; Henderson 2015a: e.g. 49-50, 75, 99-104; and Garvin 1948: 405).

With regard to disease, dirt and parasitic infection, and the sensory properties that tend to accompany them: Rosenkranz (1853/2015: 45), for example, mentions syphilis, jaundice, leprosy, “disgusting rashes,” dropsy, tympanitis, and plague; Rolston (1983: 192-3) finds ugliness in an opossum “infested with a hundred worms”; and Van Damme (1987: 53-66) notes that a range of formal properties—including dullness, darkness and coarseness—tend to be found to be ugly across a wide range of African small-scale cultures as they are suggestive of disease, dirt and death (see also e.g. Burke 1759/1990: 93; Cousins 1995: 65; Messenger 1973: 123-4; Sibley 2001: 197, 199; Ottenberg 1975: 48; Nietzsche 1889/1911: 76; Brady 2011: 92; Carmichael 1972: 497; Vogel 1977: 171; Turner 1980: 155; Moore 1903/1922: 84; Eco 2007: e.g. 82, 137, 177, 185, 333; Clark 1984: 96-7; Thompson 1971: 35-6; Henderson 2015a: e.g. 52, 58, 76, 80; and Bayley 2012: e.g. 23-4, 86, 158).

With regard to bodily products: Paris (2017: 142) notes that vomit and faeces are ugly; Hutchinson (2002: 153) mentions cases of “spots, snot, dribbling, saliva, piss (the physical eruptions of the body)” and Sibley (2001: 197) mentions the slimy and oozy generally (see also e.g. Rosenkranz 1853/2015: e.g. 55, 148, 150; Bayley 2012: e.g. 86, 206; Brady 2011: 89; Eco 2007: e.g. 131, 137; Henderson 2015a: e.g. 140, 152, 171-172; and Thomson 1992: 107).

With regard to decomposition and death, and the sensory properties that tend to accompany these such as sliminess, pallidness, and malodour: Saito (1998: 101) discusses the ugliness of a rotting elk carcass full of maggots; Eco (2007: 65-67) discusses the ugliness of decomposing and dead bodies, citing descriptions of their yellow and pale colour, and the way that torsos tend to swell and eventually split to release putrefaction; and Brady (2011: 92) and Eco (2007: 19) respectively note the ugliness of “rotting smells” and the “nauseating stench” of sores (see also e.g. Bayley 2012: e.g. 141, 161; Messenger 1973: 123-4; Sibley 2001: 199; Cousins 1995: 6; Cousins 1854/1872: 148; Rosenkranz 1853/2015: e.g. 117, 181-3, 190-1; Bosanquet 1889: 45; Hutchinson 2002: 153; Henderson 2015a: e.g. 130, 148-156, 161; Lessing 1766/1905: 181; Brady 2011: 92; Clark 1984: 96-7; Nietzsche 1889/1911: 76; van Damme 1987: 53-66; and Clark 1984: 96-7).

With regard to socio-moral violations, including impure sexual acts: Carmichael (1972: 496) stresses the ugliness of a variety of moral evils including the “brutal,” “cruel,” “harsh,” “malicious,” “cowardly,” as well as “treachery” and “perfidy”; Sibley (2001: 197) mentions the spiritually “foul” and “evil”; Bayley (2012: 72-4) emphasizes the ugliness of sexual acts and organs, citing, for example, Georges Bataille’s (1957/1986: 144-5) claim that “no one doubts the ugliness of the sexual acts”; and anthropologists such as van Damme (1987: 53-66) have noted that there is a widespread tendency to regard moral vices as ugly across African small-scale cultures (see also e.g. Rosenkranz 2015/1853: e.g. 31, 55, 42-5, 161-71; Lawal 1974: 240-1; Bosanquet 1892: 355; Cousins 1994: 63, 1995: 5; Mather 1935: 256; Bayley 2012: e.g. 33-4, 46, 60; Paris 2018; Doran 2021, n.d. b; Ottenberg 1975: 48; Garvin 1948: 408; Hutchinson 2002: 152; Eco 2007: e.g. 40, 131, 150, 212; and Henderson 2015a: e.g. 59, 138, 157).

With regard to ‘low’ animals, including the hairy, the scaly, and crawly, the dirty and the generally inferior: Rosenkranz (1853/2015: 31, 35, 40, 57, 191) mentions the ugliness of, for example, rats, squid, apes, camels, newts, toads, cockroaches and worms; Sibley (2001: 197) mentions warthogs and vultures; Bain (1859: 278) mentions, for example, centipedes, earwigs, and snails; and Paris (2017: 89) notes the ugliness of, for example, the blob fish, mosquito, naked mole rat, monkfish, and Galapagos batfish (see also e.g. McNaughton 1979: 4; Bennett-Levy &

Marteau 1984: 39; Boone 1986: 96-9; Brady 2011: 94; Frynta et al. 2019; Janovcová et al. 2019; Bayley 2012: 167, 179, 201; Eco 2007: e.g. 56, 111-12, 352; Klebl et al. 2020; and van Damme 1987: 53-66).

With regard to “merely anomalous” things, Sibley (2001: 201) mentions slight exaggerations in the facial proportions that can make people unattractive; Rosenkranz (1853/2015: 45, 63, 73, 184) mentions, for example, formal disunities in architecture, old age, and members of outgroups, including racial outgroups; and Paris (2017: 142) mentions cacophonous noises (see also e.g. Hare 1933: 271; Brady 2011: 92; Garvin 1948: 405; Cohen 2013: 201; Bayley 2012: e.g. 22, 119, 194, 199; Henderson 2015a: e.g. 30, 51, 144-145; Klebl et al. 2020; and Doran n.d. a).

Turning away from the kinds of things that tend to evoke disgust, ugliness also *seems* to be reliably found in those things that tend to elicit fear (i.e. the “frightening”). Just as the fact that the lexical item ‘deformity’ was a synonym for ugliness at certain times has been used to support the idea that ugliness involves deformity (e.g. Paris 2017: 141), the fact that the English word “ugly” derives from the Old Norse ‘*uggligr*,’ meaning fearful or dreadful has been noted in support of the idea that the frightening is ugly (Sibley 2001: 204; Bayley 2012: 194; as well as by some of the psychologists working on ugliness in the early 20th century, as summarized by Pickford 1969).⁴

Indeed, language aside, some ugly artworks have been put to the purpose of inspiring terror. The Yoruba deploy intentionally ugly Alakoro masks in psychological warfare to help defeat their enemies (Thompson 1971: 35-6), and the secret spirit masks used in Bassa rituals—which take the form of what monsters from the darkest forest are imagined to be like—are used to inspire reverence and respect (Dorsinville & Meneghini 1973: 14). Turning to the natural world, there is a good deal of intuitive appeal to the idea that certain animals that tend to frighten people—such as spiders, and reptiles such as snakes—are ugly; and moreover, that these animals are *ipso facto* ugly in virtue of this tendency. It has also been suggested that, at certain times, such as the seventeenth century, mountains have been thought to frighten people and to be ugly (e.g. Bayley 2012: 106, 109; for other examples, see e.g. Bain 1859: 278; Henderson 2015a: e.g. 77; and Eco 2007: e.g. 74-8, 82, 89).

§2.2 *Why Aren’t Examples of Things That Are Ugly and Fear-Eliciting Counterexamples to Ugliness-Disgustingness?*

While fear sometimes *accompanies* the experience of ugliness, the relevant evidence suggests that it does not stand in a constitutive relationship to it. In fact, many of the things that seem to be ugly in virtue of their tendency to frighten in fact also have a tendency to disgust, and, I suggest, are only ugly in virtue of this *latter* tendency. Indeed, to the extent that those things that combine the disgusting and the frightening are horrifying, and the horrifying is thought to be a determinate of the ugly, I submit that cases of apparent ugliness in the ability to evoke fear actually support *Ugliness-Disgustingness* rather than providing counterexamples to it. Furthermore, I submit that the fact that the horrifying constitutively involves disgust can explain why determinates of ugliness such as being horrifying are not affectively fungible with non-horrifying kinds of ugliness, and why the horrifying is used for certain artistic functions. To this extent, I suggest that *Ugliness-Disgustingness* provides explanatory benefits.

In the case of ugly and frightening animals, Klebl et al. (2020) found that animals high in ugliness elicited greater disgust compared to animals low in ugliness when controlling for fear and sadness; but fear and sadness were not associated with ugliness when controlling for other negative emotions. Indeed, in the case of snakes specifically—which are some of the most *prima facie* plausible cases where ugliness seems to reside in the ability to evoke fear—beauty has been shown to be strongly *negatively* associated with disgustingness, but moderately *positively* associated with the ability to evoke fear (Landová et al. 2018). Moreover, in the small number of cases where the features that are associated with snakes’ ability to elicit fear and their ugliness have been shown to be the same (Landová et al. 2012), it is far from clear that it is the ability of the features in question to elicit fear *per se*, rather than disgust, that makes for ugliness. For example, being heavier has been shown to be associated with the ugliness of snakes as well as their ability to elicit fear (Landová et al. 2012), but it is likely that increased weight is associated with snakes looking more *dummy*, and it is *this* which makes the snakes uglier, though not more frightening.⁵

In the case of the ugliness of mountains, where these are found to be ugly, here too they seem to be ugly to the extent that they are found to be disgusting. Bayley (2012: 106) characterizes the response that was had to mountains when they tended to be seen as ugly prior to the end of the 17th century as one of “horror,” “psychological revulsion” and a reaction “somewhere between disgust and fear.” As per Bayley’s characterization, horror generally is widely thought to be a blend of fear and disgust (e.g. Carroll 1990: 27-28; Miller 1996: 26; Brady 2013: 179). Bayley

⁴ Eco (2007) might be thought to offer a synonym argument for the idea that ugliness lies principally in disgust, and perhaps, fear, when he notes that “the synonyms for ugly contain a reaction of disgust, if not of violent repulsion, horror, or fear” (16). However, insofar as some of the ‘synonyms’ he cites, such as “ungainly,” “foetid,” “deformed,” and “disfigured” seem to either refer to determinates of ugliness or to the grounds for some cases of ugliness, this argument is best thought of as a brief example of the argument from ostensions.

⁵ Dummy forms have been shown to make a robust contribution to ugliness and disgustingness in the animal kingdom (Frynta et al. 2019), and dumpiness seems to logically fit disgustingness more closely than the ability to elicit fear. For a further example, see fn 9.

notes that when mountains were seen as ugly, they were seen as “undigested, deformed, lumps” (2012: 109), which suggests that they warranted, and indeed tended to elicit disgust, rather than fear, to the extent that they were seen as ugly. By contrast, to the extent that the mountains were seen as presenting a danger of destruction to the self by mechanical means, they tended to be seen as sublime rather than ugly, as evinced by John Dennis’ description of his response to travelling through the alps, which Bayley (2012: 109-110) offers a paradigm case of the seventeenth-century response to mountains:

The impending rock that hung over us, the Dreadful depth of the Precipice, and the Torrent that roar’d at the Bottom, gave us such a view as was altogether new and amazing... we’d walk’d upon the very brink, in a literal sense, of destruction. One stumble and both Life and Carcass had been at once destroyed. The sense of this produc’d different motives in me, viz., a delightful Horrour, a terrible Joy, and at the same time that I was infinitely pleased I trembled.

As such, while it is plausible that mountains can be seen as ugly, and indeed have been seen as such, they only seem to be able to do so to the extent that they are found to be disgusting, as *Ugliness-Disgustingness* would predict.⁶ Indeed, to the extent that the horrifying has, independently of *Ugliness-Disgustingness*, been thought to be a species of the ugly (e.g. Brady 2013: 179; Bayley 2012: 106), and to be a combination of the disgusting and the frightening (e.g. Carroll 1990: 28, 30; Brady 2013: 179), *Ugliness-Disgustingness* is provided with further support. Moreover, since emotions can be blended in experience (see e.g., Watson & Stanton 2017), *Ugliness-Disgustingness* is able to explain why some determinates of ugliness are phenomenologically non-fungible with other cases of ugliness: Cases of ugliness that are horrifying *feel different* to experience than non-horrifying cases of ugliness.

Finally, the case of intentionally ugly masks provides a further case where the ugly seems to lie in the disgusting-eliciting, and illustrates the distinctive functions that horrifying cases of ugliness can serve in artworks.

The intentionally ugly Alakoro masks of the Yoruba are thought to be ugly because they depict features associated with disease and alteration of the ideal bodily envelope, such as swellings and rough skin, and because they resemble the decapitated heads of slain enemies (Thompson 1971: 35-6). The secret spirit masks of the Bassa feature elicitors of disgust such as signs of disease and deformity—including swollen lips, contorted features, protruding eyes—and debasing animal reminders, in presenting hybrids of humans and animals (Dorsinville & Meneghini 1973: 14).

Moreover, when combined with certain facts, *Ugliness-Disgustingness* is able to explain why ugliness in the form of the horrifying is better able to function in the way intended in warfare than merely frightening artworks would. As Solomon (2004: 118) and Taylor and Uchida (2019: 1558) note, horror is often characterized by a state of tonic immobility (along with nausea); and it is likely that the contamination component of disgust is partly responsible for this. Horrifying objects cannot be escaped from—flight or fight won’t neutralize the threat once it is upon you, as once you have contacted the horrifying in some manner, you have become contaminated (for further arguments related to contamination, see §§3.1.2 and 4). Moreover, there is evidence that stimuli that combine the ability to evoke disgust with the ability to evoke fear are much more effective at motivating aversive behaviour than stimuli that are merely frightening (e.g. Morales et al. 2012), and that disgusting things are better at holding our attention than frightening things (e.g. Hoof et al. 2013).

As such, in combining disgustingness and the ability to evoke fear, the Alakoro war masks of the Yoruba are likely to be more successful in encouraging their enemies to flee, or become immobilised, than war masks that are merely frightening would be. So, when ugliness is combined with relevant facts about the effect of combining disgustingness with the ability to evoke fear, *Ugliness-Disgustingness* is able to explain why certain cases of ugliness have likely taken the form that they do, and why they are effective at achieving their intended functions.⁷

⁶ This is consistent with Nicolson’s (1959/1997) classic argument that the aesthetic reception of mountains changed in the closing decades of the seventeenth century, when mountains went from being seen as “warts, wens, blisters and imposthumes” (2) and received with “distaste and revulsion” (17) to objects of sublimity, as a result of the development of aesthetic norms of irregularity, indefiniteness and vastness. Indeed, Nicolson stresses that the evidence suggests that the volte-face in the perceived aesthetic quality of mountains that she claims took place did *not* result from a diminution of the ability of mountains to elicit fear, as mountain travel was as dangerous at the time of the change as it was before, and the appreciation of mountains as sublime *involved fear*.

⁷ Another phenomenologically impure species of ugliness that can also be elegantly accommodated on *Ugliness-Disgustingness* is uncanniness. Uncanny things are widely thought to be ugly (see e.g., Bayley 2012: 10; Eco 2007: 311-331); and uncanniness seems to give rise to a mixture of anxiety and disgust (e.g. Miller 1996: 26; Mori 1970/2012). Indeed, proposed explanations of what makes things uncanny include the overgeneralization of disease cues, blurring of the distinction between human and non-human things, categorical anomalousness, and reminders of death, which as we will see in §3.1.1, are all thought to be able to contribute to disgustingness in certain contexts (for a succinct discussion of these proposals, see MacDorman et al. 2009). Moreover, the view that uncanniness is partly constituted by the disposition to disgust neatly explains why the uncanny, like the horrifying, has an invasive quality. As Miller (1996: 27) and Angyal (1941: 406-7) note, uncanny things are perceived to

I am now in a position to press the first argument in favour of *Ugliness-Disgustingness*: the lists of the ugly and the disgust eliciting match, and the best explanation of this state of affairs is that ugliness is disgustingness, as per *Ugliness-Disgustingness*. Indeed, in accommodating cases of ugliness where the ugliness might at first sight seem to lie in the ability to elicit fear, *Ugliness-Disgustingness* is explanatorily potent in being able to explain an additional feature of ugliness, namely that it stands in a determinate-determinable relationship with certain other properties, as well as illuminate how certain ugly artworks achieve the functions they were intended to serve.

§3 *The Argument from Proposed Intentions*

A second argument for *Ugliness-Disgustingness* and first argument for *Disgustingness-Disgust* is provided by examining what might unite the items in these ostensive lists.

In §3.1.1, I show that the main competitors to *Disgustingness-Disgust* do not succeed. In particular, I argue that a sophisticated second-order account, which posits that disgustingness is that which *warrants* disgust, fails as it encounters a novel problem—the ‘too many reasons’ problem. I show that only *Disgustingness-Disgust* is able to adequately explain the distribution of disgustingness in the world, and that *Disgustingness-Disgust* is also able to explain the fact that we sometimes use the lexical item ‘disgusting’ to shape affective tendencies. To the extent that this is the case, I suggest that *Disgustingness-Disgust* should be accepted. I also show why *Disgustingness-Disgust* needs to be formulated in terms of activation of the disgust system rather than the conscious experience of disgust, and trace some of the standard conditions in light of the relevant empirical evidence. In §3.1.2, I bring the argument from §3.1.1 to bear on *Ugliness-Disgustingness*. To this end, I show that Sibley’s objection to *Ugliness-Disgustingness* is not successful as it is based on one of the false account of disgustingness discussed in §3.1.1. I also show that the evolutionary history of disgust, together with the unsuccessful accounts of disgustingness discussed in §3.1.1, specify some of the primary causes of disgust, and to this extent are helpful in showing how powerful *Ugliness-Disgustingness* is in explaining, for example, why ugliness is distributed in the world in the particular way it is, as well as why people differ in what they find ugly across cultures. I suggest that, to the extent that this shows how explanatorily potent *Ugliness-Disgustingness* is, it is supported. Finally, I suggest that if ugliness is disgustingness, then the evidence concerning the standard conditions for something being truly disgustingness are also the standard conditions for something being truly ugly.

In §3.2.1, I turn my attention to the main existing accounts of ugliness. I show that they face one of three problems. Those accounts that feature a mind-independent property such as deformity are not able to explain the heterogeneity of ugly things (the problem of heterogeneity). Those accounts that claim that ugliness lies in a thin property such as the disposition to displease are not able to accommodate the fact that ugliness is narrowly and systematically distributed in the world and the fact that we sometimes enjoy experiencing ugliness (the problem of skinniness). Finally, those accounts that claim that ugliness lies in the absence of beauty tend to be unable to accommodate the logical structure of UGLINESS—such as the fact that UGLINESS admits of an opposite which it sits across from over a neutral midpoint (the problem of UGLINESS’ logical contours). In §3.2.2, I argue that, in successfully negotiating all of these potential problems, *Ugliness-Disgustingness* is shown to be the most extensionally and logically adequate account available, and so to this extent should be accepted.

§3.1.1 *The Proposed Intentions of Disgustingness*

There are two prominent response-dependent accounts of disgustingness that are competitors to *Disgustingness-Disgust*. The first proposal is as follows:

Disgustingness-Anomalousness: An object, O, is disgusting to person, P, if and only if O is thought by P to be anomalous relative to their categories in standard conditions (adapted from [Douglas 1966](#)).

While many disgusting things are anomalous—for example bats tend to be disgusting to some and are anomalous in being mammals that fly—many things that are not thought to be anomalous are disgusting—e.g. faeces are disgusting but aren’t thought to be anomalous—and so the disgusting cannot be that which seems anomalous. Nor, indeed, is seeming anomalousness sufficient for disgustingness: whales are anomalous in being mammals that live in the sea but aren’t disgusting to the extent that they are apprehended as such.

A second proposal is as follows:

have an unnatural power which makes them seem like they threaten to haunt—or even possess—the perceiver, partly in virtue of uncanniness’ tendency to generate representations of contamination.

Disgustingness-Animality: An object, O, is disgusting to person, P, if and only if O reminds P of their animal nature—by bringing to mind thoughts of their mortality or need to reproduce, defecate etc., or thoughts of the distinction between humans and animals having been blurred—in standard conditions (adapted from e.g. [Rozin et al. 2008](#): 761; [Rozin & Fallon 1987](#): 28).

While it is true that many disgusting things—such as sexual activities, faeces, decay, and dead bodies—are apt to remind us of our animal nature in the relevant sense, in many cases this over-intellectualizes the grounds on which things can be truly disgusting. Faeces do not become disgusting to children until shortly after they toilet train ([Rozin et al. 2008](#)), rather than when they acquire the knowledge of their own animal nature or of the distinction between humans and animals ([Leddon, et al. 2012](#)). Nor do animal reminders seem sufficient for disgustingness. Some humans who are compared to animals—such as cases where someone graceful is thought to be like a cat—are not disgusting but admirable to that extent.

Turning away from the response-dependent competitors to *Disgustingness-Disgust*, the most plausible (though as we will see, ultimately unsuccessful) response-independent characterization of the disgusting is that it lies in the contaminating.

It is widely thought that disgust is intimately related to contamination by pathogens and parasites, and indeed, partially evolved to protect us from infection (e.g. [Davey 1994](#); [Curtis & Biran 2001](#)). With this in mind, it may be suggested that the disgusting should be characterized in a second-order fashion, as that which *warrants* disgust in the sense of *fitting* disgust because it is contaminating, rather than in terms of what does in fact have the disposition to disgust:

Disgustingness-Merits-Disgust: An object, O, is disgusting if and only if O warrants disgust, where O warrants disgust if and only if O is contaminating (adapted from the most prominent accounts of the adaptive function of disgust—such as [Davey 1994](#), [Curtis & Biran 2001](#), [Curtis et al. 2004](#), and [Oaten et al. 2009](#)—in a similar manner to that proposed by [D’Arms & Jacobsen, 2000a, 2000b, 2003, 2006](#), and [D’Arms 2005](#)).

Here, it is helpful to broadly follow D’Arms and Jacobsen ([D’Arms & Jacobsen 2000a, 2000b, 2003, 2006](#); [D’Arms 2005](#)), who defend the idea that second-order sentimentalist accounts of evaluative properties linked to basic emotions (e.g. disgustingness and sadness) are correct. They offer sophisticated arguments for these accounts to be formulated in terms of the “fittingness” of the emotion that is proposed to constitute the property in question. “Fittingness,” for D’Arms and Jacobsen, is determined by what they variously describe as the way the relevant emotion “presents” the world as having evaluative features (e.g. [2000a](#): 746; [2000b](#): 66), and the “shape” or “internal logic or structure” of the relevant emotion (e.g. [2000b](#): 73; [2000a](#): 742). Moreover, they suggest that this “shape” can be understood in terms of the ecological property that the emotion in question evolved to respond to: for example, they suggest that the logic of disgust is contamination and that disgust presents the world as being contaminating (e.g. [2003](#): 136, 139; [2006](#): 117; [D’Arms 2005](#): 17). With this in mind, for D’Arms and Jacobsen, among all the reasons that might govern whether we might respond to an object with disgust or not, only those related to the object’s ability to contaminate determine whether disgust is fitting, and in turn whether the object is disgusting. There may be other, *pragmatic*, reasons that we shouldn’t respond with disgust to disgusting things. One such reason why we shouldn’t feel disgust towards disgusting people is that disgust leads to dehumanization (e.g. [Harris and Fiske 2007](#), and [Buckels and Trapnell 2013](#)) and, as a result, disgust may lead us to act immorally towards them. But these reasons aren’t relevant to whether such people are *actually* disgusting or not, and so need to be ruled out in the formulation of the biconditional. This is commonly called the “conflation problem” (following [D’Arms and Jacobsen 2000b](#)) or the “wrong reasons” problem (following [Rabinowicz and Rønnow-Rasmussen 2004](#)).

The problem with *Disgustingness-Merits-Disgust* is that the content of disgust—in the sense of its “shape,” “internal logic or structure” and the way it presents the world to be—is conjunctive, but the things that are disgusting very often do not have conjunctive content. Call this the “too many reasons” problem.

Like many aspects of the mind, the disgust mechanism has evolved to be a kludge ([Marcus, 2009](#)). As we have seen in §2, it evolved from an ingestion-focused response to reject poisons and toxins (evident in e.g. the ‘gape’ expression that partly constitutes the disgust response) into a broader boundary-guarding response to deal with the threat posed by pathogens and parasites, which tend to be transmitted through mere physical contact (evident in the contamination thinking component of disgust). Once formed, the disgust response is thought to have been subsequently co-opted to regulate the socio-moral realm for no better set of reasons than because, first, evolution by natural selection tends to produce kludges by tinkering with psychological mechanisms that are already present—such as the disgust system in this case—rather than producing an entirely new mechanism; and second, the disgust

response proved to be *good enough* for the purpose of regulating the socio-moral realm, adaptively speaking (Rozin et al. 2008; Kelly 2011).⁸

As a result, on *Disgustingness-Merits-Disgust*, only a small number of things would be rendered disgusting. Only things that are harmful to ingest (as indicated by the oral components of the response and its adaptive function of dealing with toxins) and contaminating (as indicated by the contamination thinking component of the response and its adaptive function of dealing with pathogens and parasites) would be truly disgusting. An example of this would be food contaminated with *Staphylococcus aureus*—a bacterium that can produce diseases such as meningitis as well as toxins that produce food poisoning. This is such a reduced number of things so as to constitute a *reductio ad absurdum* of *Disgustingness-Merits-Disgust*. Decaying things that contain toxins but not pathogens or parasites tend to be disgusting, as are open wounds that contain pathogens or parasites but not toxins and, indeed, dead things that contain neither threat (to say nothing of socio-moral violations). I leave aside the question of whether the “too many reasons” problem generalizes to other emotion-linked evaluative properties, and accounts of “fittingness.”

By contrast, *Disgustingness-Disgust* can capture all of the cases that these competing accounts can, without also being saddled with the infelicities that weigh its competitors down. Many disgusting things are anomalous and activate the disgust system—such as bats—but not all disgusting things are anomalous: some entities, such as faeces, are not anomalous, but are nonetheless disgusting and activate the disgust system.

Many disgusting things can function as reminders of our animal nature and activate the disgust system—such as death and decay—but not all disgusting things are disgusting to the extent that they function as animal reminders: faeces become disgusting, and activate the disgust system, before the animal-human distinction arises in development.

Finally, many disgusting things are indeed contaminated by pathogens, and tend to activate the disgust system—such as the skin lesions of someone with leprosy—but not all disgusting things are pathogenically contaminating: the morally bad is often not contaminating, but is nonetheless disgusting and tends to activate the disgust system (for evidence, see §2.1).

Moreover, *Disgustingness-Disgust* can even elegantly accommodate one of the facts of language usage that has traditionally been thought to favour warrant-based accounts of evaluative properties. As D’Arms and Jacobsen (2000a: 727) point out, lexical items expressing evaluative concepts are often used to contest and regulate our stable emotional responses, and not simply report the presence of dispositions (see also, Wiggins 1987). So, for example, to say that “oysters are disgusting” need not be to deny that oysters are liked by most, but may rather seem to point out that their sliminess *should* be greeted with disgust. It might seem difficult to see how dispositional accounts of evaluative properties that are tied to emotional responses such as *Disgustingness-Disgust* can make good sense of why such usages exist: since such utterances are indicative, if the concept expressed by ‘disgusting’ refers to what is disposed to disgust the majority, then such utterances will sometimes be false, and worse, perhaps knowingly deployed as such, and in cases where that is true, such utterances seem to lack any comprehensible function.

While *Disgustingness-Disgust* is an account of the property of disgustingness rather than of the meaning of ‘disgusting,’ once it is seen how we come to be disgusted by the things that we do tend to be disgusted by, it becomes easy to see how such usages can be accommodated by *Disgustingness-Disgust*. Even though we are prepared to be disgusted by certain things, the disgust system has also evolved to be malleable with respect to its elicitors so that the disgust response can be put to whatever ends it is suited to address in a particular cultural context (see e.g., Kelly 2011). One of the crucial ways in which this is done is through parents modelling the disgust expression towards certain objects: their facial expressions do more than simply express an emotional state; parents amplify their expressions in the presence of their children and, in so doing, bring about that response in their children where it is currently absent (e.g. Repacholi 1998; Stevenson et al. 2010). Indeed, even in adulthood, there is evidence that similar processes are in place: People amplify their disgust expressions in response to disgusting stimuli when in the presence of others compared to when they are alone (e.g. Gilbert et al. 1987), and observing the expression of disgust has been shown to activate the same neural areas as are activated by exposure to the primary elicitors of disgust (Wicker et al. 2003), which is consistent with a direct link between the perception of the disgust expression and feeling disgust in response to the same elicitor (Gallese et al. 2004).

Crucially, this process does not need to be understood in terms of truth-functionality, at least where truth is intended in the sense of correspondence, as it is on warrant-based accounts of evaluative properties such as *Disgustingness-Merits-Disgust*. Neither the parents, nor the children, need to represent the object as warranting disgust because they represent it as being truly contaminating (or some other such property). Due to the links between perception and action, observing the expression likely brutally causes the disposition to arise as we have just seen. As such, in most such cases, the expression simply causes the children’s disgust system to be sensitized to what tends to disgust the adult population in a given culture. Furthermore, even where an adult’s expression departs from the

⁸ In a sense, “conflation” has been baked into our predispositions to respond with disgust to certain kinds of things by evolution by natural selection.

corpus of disgust elicitors in their cultural milieu, it need not do so because that person represents it as truly possessing a contaminant. They may express disgust, and cause disgust to arise in others, merely because it may be *useful enough* to do so.

Seen in this light, the practice of causing the development of emotional dispositions in others through indicative utterances is an extension, through language, of the same practice of shaping tendencies to disgust through other, non-linguistic expressions of disgust. Indeed, by doing this in language, this can be done easily, with precision of reference, and at a distance. As such, the existence of utterances that have been taken to support warrant-based accounts of evaluative properties make perfect sense on dispositional accounts, such as *Disgustingness-Disgust*, once we are armed with a sophisticated understanding of some of the ways in which emotional dispositions arise and evaluative properties come to attach to the objects that they do.

Two issues remain: First, why should *Disgustingness-Disgust* be characterized in terms of activation of the disgust system—which we can be conscious of, but need not be—rather than conscious feelings of disgust? And, second, what are the standard conditions?

With regard to the first question, as a general rule, episodes of emotions can occur without conscious awareness—particularly when these episodes are made “elusive” by, for example, being low in intensity, having been subject to adaptation, and occurring in the context of a relatively slight change in the occurrent affective state an individual is undergoing (Haybron 2007), or when the eliciting cause is too fleetingly experienced for it, or the affective consequences it brings, to enter consciousness (e.g. Winkielman et al. 2011).

Indeed, even when emotions are in plain sight of introspection, so to speak—that is, even when the emotional episodes are intense, occur in the context of an abrupt change in affective state, are not subject to adaptation, and occur when we are making an effort to introspect—we can still be unaware of the nature of our experience.

In the specific case of disgust, arachnophobia is well placed to illustrate this. For a time, it was thought that the response that underlay the aversion to spiders was fear or anxiety. In early investigations of the aversion, people were asked to self-report the extent to which they felt “frightened” by spiders (e.g. Bennett-Levy & Marteau 1984), and people commonly reported feeling “frightened” when asked to specify the affective nature of their aversion in an unstructured manner (e.g. Cornelius & Averill 1983). Moreover, prominent early theories of this aversion posited that we are pre-prepared to *fear* such animals because we evolved from mammals who would have been *preyed upon* by these animals (e.g. Öhman 1986)—where predation is one of the paradigmatic kinds of threat from the outside that fear evolved in response to.

But, beginning in the late 1980s and early 1990s, a range of evidence which did not rely on people’s conscious awareness of their own emotional state emerged which suggested that the response underlying the aversion to spiders was at least as much, if not more, based on disgust. Correlational studies showed that the “fear” of spiders, though not of predatory animals, is associated with self-reported “fear” of animals that more obviously elicit disgust such as worms, slugs and maggots (e.g. Davey 1992). Experimental studies showed that arachnophobes’ aversion to spiders could be enhanced by making them disgusted, though not scared (Webb & Davey 1993) and that arachnophobes would variously refuse to eat food that had been physically contacted by spiders (e.g. Mulken et al. 1996), expect disgust- (but not harm-) related outcomes after imagined contact with spiders (Davey et al. 2003), and make the facial expression associated with disgust when exposed to spiders (e.g. Vernon & Berenbaum 2002). Finally, although participants commonly describe themselves as “afraid” and much less commonly as “disgusted” by spiders (e.g. Cornelius & Averill 1983), many of the reasons they offer for their aversion seem more apt to elicit disgust than fear. Examining the physical characteristics of spiders that most “frighten” arachnophobes further, Davey (1992) found that of the top 5 most common reasons reported by arachnophobes for their aversion, three were apt to elicit disgust (the spiders’ legginess, hairiness, and crawliness) and two were apt to elicit fear (the spiders’ capacity to move suddenly and speedily).⁹

The foregoing shows why *Disgustingness-Disgust* needs to be formulated in terms of activation of the disgust system: despite the deliverances of introspection, people can be in a state of disgust without being aware of it—either because the emotional episode occurs in conditions that make it “elusive” to introspection, as Haybron puts it, or because they fail to be conscious of it as such when introspecting.

Finally, what of the standard conditions? Setting aside the usual suspects, such as normal environmental conditions, some of these are suggested by the operation of disgust itself in normal individuals.

One of the important facts about disgust is that it performs the function of guarding the boundaries of the self. To do this, disgust draws a (crude) distinction between ‘self’ and ‘other,’ which it uses to determine the potency

⁹ Spiders provide another example to support the claim that fear- and disgust- evoking ugly things are only ugly to the extent that they elicit disgust (see §2.1): Bennett and Levy (1984) found that the ‘sliminess’ of spiders, though not the features that are apt to elicit fear such their ability to move speedily or suddenly, was associated with their ugliness.

of the common elicitors of disgust (Stevenson & Repacholi 2005). The self-same elicitor of disgust—such as a glob of mucus, or the odour of faeces—is more effective at eliciting disgust when it is believed to originate from a stranger rather than oneself (Stevenson & Repacholi 2005; Peng et al. 2013). To most effectively perform this boundary-guarding function, the disgust system has become sensitive, for example, to the capacity to cross the thresholds of the body (see e.g., Miller 2004). The clean hair on my head does not disgust me, but the self-same hair in my food would. As such, in determining whether a given object is disgusting to a given person, it would need to be determined whether the person’s disgust system is activated when the object is, for example, sufficiently close to the person to be appraised by them as posing a threat to cross the threshold of their body.

Indeed, given that it is plausible that we commonly make judgements of disgustingness based on conscious experiences of disgust, and that the *intensity* of disgust is sensitive to an object’s ability to cross the boundaries of the self, this also suggests that the optimal epistemic conditions for judging something to be disgusting will include being close to the object. Further optimal epistemic conditions for judging disgustingness are provided by the general conditions under which activation of the disgust system is least likely to be “elusive,” as outlined above, and thus give rise to consciously felt disgust. As emotional dispositions are subject to processes of adaptation—generally, our awareness of the disgust that arises towards things with the disposition to disgust diminishes with frequency and duration of exposure—we may find it difficult to accurately judge cases of disgustingness where we have become temporarily inured to their disgustingness through contemplating them too frequently or for too long. Moreover, to the extent that our awareness of our emotional states is most precise when they come in the context of a sharp change in affective state, cases of disgustingness might be more difficult to detect as such when they appear in the context of similarly disgusting things.¹⁰

§3.1.2 How Do the Unsuccessful Competitors to Disgustingness-Disgust and the Evolutionary History of Disgust Come to Bear on Ugliness-Disgustingness?

Disgustingness-Merits-Disgust underlies Sibley’s (2001: 204) objection to the claim that the ugly is the disgusting. While Sibley does not doubt that there is some intimate connection between disgustingness and ugliness, he argues that there are cases which show that they do not stand in a constitutive relationship. Sibley offers the following example: things that appear to be diseased but are not actually diseased are ugly, but not disgusting. Sibley is most charitably characterized as thinking that the ugly and the disgusting are not identical on the following grounds:

- (P1) *Disgustingness-Merits-Disgust*: An object, O, is disgusting if and only if O warrants disgust, where O warrants disgust if and only if O is contaminating;
- (P2) Some things that are ugly are not contaminating;
- (C) Therefore some things that are ugly are not disgusting.¹¹

As we have seen from the argument in §3.1.1, premise 1 is false, and so the conclusion that some ugly things are not disgusting does not follow (from this argument at least).

Moreover, *Disgustingness-Disgust* shows how even things that resemble the contaminating can be ugly, and as a result, how Sibley’s counterexample to *Ugliness-Disgustingness* in fact *supports* it.

¹⁰ A similar account of disgustingness to *Disgustingness-Disgust* is offered by Kelly (2018); thanks to an anonymous reviewer for bringing this to my attention.

¹¹ In support of this interpretation based on warrant, Sibley (2001: 204) notes that there is “nothing to be revolted by” in the case of diseased-looking things and so being revolted “would be absurd,” similar to how it would be inappropriate to feel pity towards individuals of breeds of dog with sad-looking faces. An alternative interpretation is that Sibley’s objection is that things that resemble the elicitors of disgust do not themselves have the disposition to disgust, and as a result, something can be ugly without giving rise to disgust. In support of this dispositional interpretation, he characterizes judgements of the ugliness of diseased-looking things as “cool judgements” (204). Eco (2007: 19) makes a similar argument along these lines. He offers the example of an almost toothless person in the street, and claims that since we don’t know this person, the individual’s absence of teeth doesn’t yet give rise to disgust, but it may nonetheless be judged to be ugly. In the case of Sibley, if this “cool judgement” interpretation is favoured, then Sibley’s error is to think that our emotions, and in particular disgust, function in a more ideal fashion than they in fact do: in operating on a hair trigger, our emotional reactions tend to be insensitive to the reality-appearance distinction. For this reason alone, Sibley is most charitably interpreted as principally relying on the warrant form of the objection rather than the “cool judgement” form. In the case of Eco, while he is right to think that the intensity of disgust is indeed sensitive to an object’s propensity to cross the boundaries of the self (as we have seen in §3.1.1), disgust nonetheless operates in an *anticipatory* manner to regulate who and what we will come to be acquainted with, and so Eco is not right to think that we must know someone to be disgusted by them. Furthermore, since *Ugliness-Disgustingness* does not require disgust to be consciously felt for something to be ugly, as we will see, both Eco and Sibley’s objection (interpreted along the “cool judgement” lines) would not trouble this account even if, contrary to the facts of the matter, there were evidence to suggest that such cases do not elicit consciously felt disgust.

Even objects that resemble the contaminating—such as things that are merely diseased-looking—tend to activate the disgust system. The reason for this is that the cost of perceiving a pathogen-carrier to be pathogen-free (a false negative) is much costlier than perceiving a pathogen-free individual to be a pathogen-carrier (a false positive): those who became infected with pathogens—even once—because they had a high-threshold for treating things as potential pathogen-carriers would have been more likely to perish without reproducing; whereas those with a low-threshold for treating things as a potential pathogen-carrier would have been more likely to survive for longer and reproduce, even if they forwent certain opportunities for social affiliation and sexual reproduction (Haselton & Nettle 2006). As a result, disgust has evolved to operate on a hair-trigger (Kelly 2011): it is elicited by anything that resembles things that might carry disease—as evidenced by the fact that, for example, people tend to react with revulsion to chocolate shaped like dog faeces (Rozin et al. 1986).

Indeed, the fact that disgust is responsive to signs that resemble occurrent or historic infection helps to explain why disabled people, congenitally deformed people, obese people, people with “disfigurements” such as birthmarks, and the elderly, specifically, tend to be found to be disgusting, and indeed ugly (on *Ugliness-Disgustingness*) by some. In the case of obesity, for example, obese people have been shown to be found to be more disgusting than people with influenza (e.g. Tapp et al. 2020) and to be associated with disease (e.g. Miller & Manner 2012; Park et al. 2007), and this is thought to be partly because obesity is perceptually similar to the symptoms of certain contagious diseases (e.g. Lieberman et al. 2012).

Setting aside Sibley’s unsuccessful objection to *Ugliness-Disgustingness* based on *Disgustingness-Merits-Disgust*, both the evolutionary history of disgust and the grains of truth contained in each of the competitors to *Disgustingness-Disgust* discussed in §3.1.1 explain a number of other important facts about ugliness when combined with *Ugliness-Disgustingness*, and thereby provide further support for *Ugliness-Disgustingness*.

Even if the disgusting is not the contaminating, the mere fact that the potential to contaminate has played an important role in governing what tends to be disgusting can explain a number of facts about ugliness when combined with *Ugliness-Disgustingness*.

First, even if the disgusting is not the contaminating, as we have just seen, the mere fact that disgust has evolved in large part to track contaminants in a way which tends to produce false positives explains why, if ugliness is disgustingness, ugliness tends to reside in sources of infection, as well as those that resemble them. In addition to disease itself, many of the other things noted in §2.1—such as bodily products, decay, some ‘low’ animals, dead bodies, and alterations of the ideal bodily envelope such as wounds and disfigurements—are sources of infection or have properties (such as sliminess) that resemble the signs of infection, and tend to be found disgusting and ugly (see e.g. Curtis & Biran 2001; Benenson 1995; Wolfe et al. 2007; Lieberman et al. 2012; Ryan et al. 2012).

Indeed, Klebl et al. (2020) provides support for the idea that things with the ability to contaminate are more likely to be seen as ugly than similar objects that are not apt to be appraised to be able to contaminate. Participants found images suggesting the presence of contaminants less attractive than images depicting similar content which did not suggest the presence of contaminants (e.g. a petri dish of blue slime, versus a petri dish of yellow slime with flecks of red that look like blood), even when controlling for various other negative judgements such as how distressing and frightening participants found the images (see §4 for further arguments concerning contamination).¹²

Second, when combined with *Ugliness-Disgustingness*, the fact that disgust evolved in large part to deal with the threat posed by pathogenic infection helps explain why *even* cases of ugliness that *fall short* of indicating or resembling disease—such as the slight exaggerations in the face that Sibley (2001: 201) notes and which might be called cases of “merely formal ugliness” for short—tend to be found to be ugly.

As noted in §2, a number of studies indicate that even slightly unattractive people, without the signs of occurrent or past infection (labelled cases of “mere formal ugliness” in what follows), specifically elicit disgust to the extent that they are unattractive (Krendl et al. 2006; Klebl et al. 2020). The reason *why* such cases give rise to disgust, and are in turn, ugly, is likely to be as follows:

Merely formal uglinesses—such as facial asymmetries and deviations from the form of the average face and from typical secondary sexual traits—are thought to be correlated with susceptibility to disease, and as a result are honest indicators of an increased chance of carrying pathogens now, asymptotically, or in the future (e.g. Thornhill & Gangestad 1993, 2006; Tybur & Gangestad 2011; Livshits & Kobylansky 1991; Thornhill & Møller 1997; Møller & Swaddle 1997; Møller et al. 1999).

As such, the problem posed by cases of “merely formal ugliness” is similar in nature to the adaptive problem posed by occurrent infectious disease—which, as we have seen, disgust evolved in large part to respond to. Moreover, the two problems can be dealt with effectively enough with the same responses: including finding individuals with these features aversive, and wanting to police one’s boundaries in their presence.

¹² Consistent with this, Lieberman et al. (2012) found that women’s tendency to feel disgust towards the primary sources of pathogens predicted how unattractive obese people were perceived to be; and similarly, Park et al. (2012) found that ratings of the attractiveness of moderately ugly people, though not of moderately beautiful people, was associated with the tendency to feel disgust in response to the primary sources of pathogens.

Given this, and that evolution by natural selection is a tinkerer which produces kludges that use the resources it already has to deal with novel problems, it is likely that disgust has also evolved to respond to cases of merely formal ugliness to deal with asymptomatic pathogenic threats and future pathogenic threats. Consistent with this explanation, a wide range of evidence shows that individuals whose disgust systems have been primed by chronic and temporary pathogenic threats tend to find these kinds of merely formal uglinesses even uglier (e.g. [Little et al. 2011](#); [Ainsworth & Maner 2019](#); [DeBruine et al. 2010](#); [Jones et al. 2012](#); [Watkins et al. 2012](#); [Dixson et al. 2017](#); [de Barra et al. 2013](#)). For example, Little et al. (2011) found that priming people with disgusting objects made them find opposite-sex people with asymmetrical faces and less sexually dimorphic features (such as men with more feminine-looking features) less attractive.¹³

Third, when combined with *Ugliness-Disgustingness*, the fact that disgust has evolved in part to protect us from pathogens elegantly explains why ugliness tends to be stratified in the world in the specific way in which it is. There are very few kinds of inorganic things that are ugly—with exceptions such as muddy rivers and ugly buildings (e.g. [Brady 2011](#): 94)—and the proportion of plants species that are ugly is smaller than the proportion of species of animals that are ugly ([Bosanquet 1889](#): 45; [Rosenkranz 1853/2015](#): 38-40; [Bain 1859](#): 278).¹⁴ Indeed, just looking at cases of *acquired* ugliness, animal decay and mutilation is always uglier than plant decay and mutilation ([Bosanquet 1889](#): 45; [Rosenkranz 1853/2015](#): 38), and processes in the animal kingdom such as shedding skin are always uglier than the equivalent plant processes, such as shedding leaves. Just like ugliness, few plants and inorganic objects are disgusting, but many animals are disgusting ([Rozin & Fallon 1987](#): 28; [Angyal 1941](#): 396).

The fact that disgust evolved in part to protect us from pathogens, together with *Ugliness-Disgustingness*, provides the following explanation of this distribution at the ultimate level of explanation. While both plants and animals present a threat of poisoning, animals present by far the greatest threat of pathogenic infection to humans. An estimated 58% of all pathogens affecting humans are zoonotic ([Woolhouse & Gowtage-Sequeria 2005](#))—that is, they can be transmitted between animals and humans—and contact with animals has been shown to be one of the main predictors of outbreaks of human disease in the last 100,000 years ([Wolfe et al. 2007](#)). By contrast, the pathogens affecting plants are rarely transmissible to humans. For example, with the exception of the Pepper Mild Mottle Virus, plant viruses cannot infect and produce pathologies in animals ([Colson et al. 2010](#)). Given this, one reason why we tend to find animals a more common and potent source of disgustingness, and indeed, ugliness, is that our disgust system is predisposed to be more likely to respond to animals rather than plants.¹⁵

In light of the above, it should be clear that *Ugliness-Disgustingness*, when combined with the fact that pathogenic invasion has played an important role in shaping what tends to disgust us, has a great deal of power to explain *why* ugliness tends to be distributed in the world in just the way it is.

Setting the fact that disgust has largely evolved to track pathogens, another fact about disgust's evolutionary history pertaining to its relationship with norm violations neatly explains why cases of ugly abstract objects such as certain mathematical objects can be ugly, and why it is typically not sufficient to merely *understand* such objects to be able to apprehend their ugliness. Rather, being able to apprehend ugliness in these cases typically also requires *acquiring the relevant norms*.

As we have seen in §3.1.1, disgust is thought to have been co-opted to police the abstract domain of morality, and in particular, violations of socio-moral norms. As such, there is no obstacle to mathematical objects becoming disgusting, and by *Ugliness-Disgustingness*, ugly, if they involve norm violations, and perhaps most especially, those related to purity. Indeed, this is precisely what we see in prominent cases of ugly mathematics: namely, Appel and Haken's proof of the four-colour theorem, which involves a computer running through all possible combinations to arrive at the answer, and G.H. Hardy's (1940/1992) well-known reflections on the beauty of mathematics. Appel and Haken (1986: 12) make the following observations about the aesthetic reception of their

¹³ It is important to note, however, that as an explanation at the *ultimate* level of explanation (in terms of evolution by natural selection), the view discussed here does not entail that cases of mere formal ugliness are represented in terms of disease at the proximal—that is psychological—level of explanation, though this is possible.

¹⁴ Carlson (2004) thinks that there are no truly ugly plants or animals. To see why Carlson is incorrect, see Saito's (1998: 103-4) mereological argument (see also [Brady 2011](#)).

¹⁵ Indeed, even if they fall short of being able to contaminate us, the few plants that do indeed tend to be found to be ugly have properties that resemble prominent animal sources of pathogenic invasion—such as animal decay and sexual organs. In 2009, members of the Royal Horticultural Society voted for the most ugly plant in the world, with three plants accounting for 76% of the votes cast (reported in [The Telegraph 2009](#)). In the top spot was *Amorphophallus titanum*, more commonly known as the 'corpse flower,' a plant whose ugliness resides in resembling deformed human genitalia (its scientific name translates as 'giant mishappen penis'), and in the smell of decaying meat, to attract flies, which pollinate it. This was closely followed by *Pseudochus fusiformis*, more commonly known as 'stinky squid,' a fungus whose ugliness resides in its tentacle-like shape and the slimy green blobs which emit a foul odour resembling faeces which attracts insects to help spread its spores. The third plant on the list, *Raoulia exima*, more commonly known as 'vegetable sheep,' is amorphous, pale and is covered in what look like holes. For evidence that plants, including *Raoulia exima*, give rise to disgust to the extent that they are experienced as ugly, see [Doran n.d. a](#).

proof: one of their friends, upon being told of proofs-by-computer, “exclaimed in horror, ‘God would never permit the best proof of such a beautiful theorem to be so ugly’” and Appel and Haken themselves speak of understanding the view that such proofs “defile” the Eden of mathematics. Hardy observes that areas of *applied* mathematics such as aerodynamics are “repulsively ugly” (1940/1992: 140). In both cases, merely understanding the mathematics concerned seems insufficient to be disgusted by it, and as a result, apprehend it as ugly. Rather, it typically needs to be contemplated against the backdrop of a normative conception of mathematics as a pure, *a priori* domain, unsullied by practical concerns and empirical methods.¹⁶

Further support for *Ugliness-Disgustingness* comes from examining the unsuccessful response-dependent accounts of disgustingness in greater detail.

While the disgusting is not just that which is thought to be anomalous, appraisals of anomalousness seem to at least contribute to an object’s ability to disgust in certain contexts (e.g. Rozin et al. 2008; Lieberman et al. 2011). In support of this, the potency of elicitors of disgust has been shown to vary to the extent that the elicitors are perceived to originate from people who are anomalous in the sense of being unfamiliar (Stevenson & Repacholi 2005), as we have seen in §3.1.1; and individuals who have a propensity to feel disgust tend to be averse to novel experiences (Tybur & de Vries 2013).

This explains why, if ugliness is disgustingness, ugliness tends to reside in perceived anomalousness. For example, Hare (1933: 271) notes that ugliness lies in “the oddities, the eccentricities, the foibles, the whims that are the unmistakable mark of individuality”; and Fry (1912/1996: 113) and Greenberg (1945/1988: 17) observe that original art tends to be perceived to be ugly at first. Rosenkranz (1853/2015: 163) claims that ugliness in the animal kingdom results in part from what he calls “transitions” where there is a “a fluctuation between disparate types,” such as many amphibians, which are “at once land and water animals” (40). Similarly, the standard examples of ugliness among the romantics were sea animals that appear on the border between two realms (Pop 2015: 174-5).¹⁷

Similarly, while the disgusting is not that which reminds us of our animal nature, appraisals of ‘animality’ and of the human-animal distinction having been blurred are likely to contribute to disgustingness by giving rise to thoughts of death (e.g. Rozin et al. 2008).¹⁸ In support of this, Cox et al. (2007) found that descriptions of disgusting things led to thoughts of death when people are reminded of how similar humans and animals are; and Goldenberg et al. (2001) found that making people think of death increased sensitivity to disgusting things.¹⁹

This explains why, if ugliness is disgustingness, seeming to blur the animal-human distinction or express ‘animality’ can contribute to ugliness in certain contexts. The link between ugliness and animality is widespread in philosophical aesthetics. It is present in the *Hippias Major* (c. 390/1931, 288-289: 5), where Plato’s Socrates approvingly cites Heracleitus’ view that the most beautiful ape is ugly compared to a human, and the most beautiful human “would seem an ape” beside the beauty of the gods. Similarly, Hegel (1835/1975: 729) claims: “if the human appearance in its bodily form is to bear an impress of the spirit [and therefore be beautiful and not ugly], then those organs which appear as the most important in the animal must be in the background.” Following in Hegel’s footsteps, Bosanquet (1889: 44) suggests that some species of animals are ugly because they have a “structure which symbolises a preponderance of mere animality in life, as a beast which is all head and jaws, say an alligator.” Bain (1859: 280) notes that the Greek sculptor is supposed to have “[taken] his cue from the points of difference between the human head and the head of the animals next in rank, increasing that difference as far as he safely could without misrepresenting humanity entirely” and suggests that the eyes are more important contributors to the beauty of a face than the nose and mouth, as the former are “less animal,” “more dignified in function” and “more intellectual.”

The fact that seeming to blur the animal-human distinction or express ‘animality’ tends to contribute to something’s disgustingness also explains why, on *Ugliness-Disgustingness*, there is intercultural variation in the ugliness of some things. For example, in Japan, the practice of o-haguro (‘honourable tooth black’) was not seen as ugly by the Japanese who practised it, but was seen as ugly by early Western commentators on the practice (see Blomberg 2004: 249). The Japanese blackened their teeth in part to conceal what they took to be the animal nature of white

¹⁶ The idea that Appel and Haken’s colleagues’ horror—which as we have seen in §2.2 is a blend of disgust and fear—is driven by normative violations is consistent with some of the appraisal structures that has been shown to underlie reactions of horror. Horror tends to be elicited by things that involve extreme harm, and contradictions of one’s most cherished values (Taylor & Uchida, 2019); and computer-generated proofs seems to have constituted just such an extreme harm to mathematics and contradiction of its most cherished values in the eyes of the mathematician concerned. For further specification of some of the norms governing this domain that make for ugliness, see Paris (2017: 153).

¹⁷ See also Eco (2007: 34-41), Henderson (2015b, and 2015a: e.g. 25-26, 50-51), and the discussion below related to ugliness and blurring the human-animal distinction; though cf. Paris (2017: 159).

¹⁹ Recently, Kollareth and Russell (2018) have provided evidence to suggest that unpleasant reminders that animals and humans are similar *decrease* an object’s disgustingness. Given that Kollareth and Russell did not measure death-related thoughts, as previous research suggests are crucial, and it seems that their human-animal similarity prime produced contrast effects, the question of how exactly reminders that we are animals contribute to an object’s tendency to give rise to disgust requires further investigation.

teeth; to Westerners, the blackened teeth tended to look like they were decayed (Trumble 2004: 64). When Westerners saw the black teeth of those who practised o-haguro, they appraised them as decayed, and the teeth appeared disgusting and, in line with *Ugliness-Disgustingness*, in turn ugly. When the Japanese who practised o-haguro saw white teeth, they were appraised as blurring the distinction between humans and animals, and the teeth appeared disgusting and, in line with *Ugliness-Disgustingness*, in turn ugly. In this case, blackness instead of whiteness is ugly for one culture and whiteness instead of blackness is ugly for the other culture; and it is only when we see how both colours can form part of the realisation base of disgustingness for people in these different cultures that this becomes comprehensible.

Similarly, while to many Westerners it may be difficult to see the scarification that is practised in some cultures in terms of anything other than disgusting mutilation, and therefore ugly on *Ugliness-Disgustingness*, to members of these cultures themselves scarification distinguishes “the civilised, socialised human body from the body in its natural state and from animals” (Vogel 1986: 25). Rosenkranz (1853/2015: 57) makes this point too (though with evident distaste):

...the savage demonstrates through barbaric mutilations and changes of his body, through bones and rings, which he affixes to his nose, earlobes, or lips, through tattooing and so forth, the drive to distinguish himself from nature. He is not satisfied with nature as given, like the animal; he wishes *qua* man to show his freedom against it.

Indeed, this link between animal reminders and disgust also shows how *Ugliness-Disgustingness* can help explain the existence of racist aesthetic judgements. Rosenkranz (1853/2015: 119) says of ugliness of “a bushman” (by which he means a member of the San people) that he “wanders already into the apelike and thus becomes a caricature of the human form.” In his *Notes on the State of Virginia*, Thomas Jefferson justifies his view that white people are more beautiful than black people in part by noting that black people find white people more beautiful, “as uniformly as is the preference of the Oranootan for the black women over those of his own species” (1781-2/1984: 265).

Finally, if ugliness is disgustingness, then the evidence concerning the functioning of disgust that shaped the standard and optimal epistemic conditions for something being disgusting also tell us the standard and optimal conditions for judging something to be ugly.

As we saw in §3.1.1, the activation of the disgust system is sensitive to the potential of an object to cross the boundaries of the self, and so, according to *Ugliness-Disgustingness*, in determining whether something is truly ugly for a given individual, we need to know if the disgust system is activated when the object is, for example, sufficiently close to the individual concerned. Moreover, just as the optimal epistemic conditions for judging something to be disgusting include those that make it most likely that disgust will be consciously experienced—such as, for example, being sufficiently close to the object and not being temporarily adapted to its disgustingness—so too will the optimal epistemic conditions for judging something to be ugly include such conditions.

Indeed, something similar has already been suggested in existing work on ugliness. In responding to the objection that the ugly cannot be the disgusting on the grounds that some people are too mildly ugly to give rise to disgust, Sibley (2001: 204) counters that in order for consciously felt revulsion to occur in such contexts “[the mildly ugly individual] had to be embraced, had to come too close for comfort and equanimity.” Consistent with Sibley’s suggestion here, and as I argue further in §4, to experience something’s ugliness as such by experiencing disgust towards it is to mentally represent the ugly object as being contaminating, and to be exhorted to protect the boundaries of the self, broadly constructed, from it. As such, contrary to the idea that we need to distance ourselves from objects when engaging with them in the aesthetic mode (e.g. Bullough 1912) and in line with many of Shusterman’s proposals concerning somaesthetics (2000, 2012), to experience an object’s ugliness as such, we may need to create the conditions that facilitate its ability to trigger disgust (such as it is) by reducing the *literal* distance between ourselves and the object, and perhaps even imagine practically engaging with it by, for example, touching it.

§3.2.1 *The Proposed Intentions of Ugliness*

Let me turn now to consider existing accounts of ugliness. There are a number of accounts of ugliness that seem to be response-independent.

One such account claims that:

Ugliness-Disunity: An object, O, is ugly if and only if O is disunified in the sense that its parts do not fit together (held by, for example, Arnheim 1966: 125).

This account can, intuitively, accommodate the ugliness of cases like da Vinci's *Grotesque Heads* (c.1490), where the proportions of facial features mean that they don't fit together well; and cases of hypertrichosis, where hair appears in places it shouldn't. But this account is not entirely adequate. Setting aside the issue of whether the notion of disunity can be cashed out in a sufficiently substantive manner, disunity cannot be necessary for ugliness, since there are some cases of ugliness that do not have parts, such as sliminess (Brady 2013: 175).

A second set of accounts of ugliness that seem to be response-independent hold that ugliness is essentially attributive, rather than being essentially predicative or ambifunctional. That is to say, unlike whether something is red (which is predicative) or pale (which is ambifunctional), and in common with whether something is large (which is attributive), whether something is ugly depends in part on what it is. One of the most common suggestions as to what relationship must hold between an ugly case and the kind which it is a case of, is that it must be a relationship of deformity, such that:

Ugliness-Deformity: If an object, O, is ugly, then O is deformed (considered by, for example, Sibley, 2001: 195-6).

While it is certainly true that cases of deformity are indeed ugly—Massy's *The Ugly Duchess* (1513), for example, depicts a woman suffering from Paget's disease, which causes bone to be produced faster than normal—deformity doesn't seem to be necessary for ugliness. As Sibley himself notes, the notion of deformity is far too medicalised to be fit for purpose: there are many cases of ugliness—such as Cyrano de Bergerac's nose—that are not cases of deformity.²⁰

Noting that other, less medical relations, such as being denormalized (in the statistical sense) or denatured (in the non-functional sense) also fail—as there are rare beauties and perfectly functional cases of ugliness such as de Bergerac's nose, respectively—Sibley (2001: 197) ultimately plumbs for a radically disjunctive account. According to this account, ugliness lies in the deviations from norms picked out by terms such as: “dirty, squalid, polluted, diseased, spoiled, degraded, coarse, base, subnormal, brutish or subhuman, even foul or evil, either physically or spiritually... distorted, defective, defiled, soiled, mutilated, discoloured, blotchy, withered, scarred, disfigured, emaciated, swollen, bloated, begrimed, stunted, dwarfed, wizened, decaying, mouldering, blighted, festering, and a host of others indicative of abnormality or defect in shape, colour, size, health, growth, etc.,” as well as “threatening, dangerous, or frightening” in line with the etymology of ‘ugly.’

Setting aside the obvious problem that this particular account is so disjunctive that it looks to be uninformative, one problem with any account, such as Sibley's, that posits that ugliness lies essentially in deviation from a norm or set of such deviations, whatever these may be, is that there are no norms that can plausibly be said to apply to certain cases of ugliness. For example, as noted by Brady (2011: 94) and Paris (2017: 142) there are many cases of “inherent” ugliness—such as mudflats, faeces, vomit and slime—which do not plausibly admit of standards or norms.²¹ Moreover, there are species where all individuals are ugly, such as toads and aye-ayes; and Sibley's claim that species such as these only seem ugly to the extent that they are seen in terms of another species, and especially humans, is not convincing in all such cases. While there is evidence that cross-species comparisons are responsible for some of our aesthetic judgements—for example, mammals with features that match the human baby schema tend to be found to be more beautiful (Landová et al., 2018)—such comparisons cannot explain all of the relevant cases. Remaining with the idea that humans are the reference category against which the ugliness of a species is measured, there are some species of animals—for example, certain species of moths and butterflies—that are equally far from the human form. Yet some are ugly and some beautiful, which makes it unlikely that this aesthetic difference can be accounted for in terms of the extent to which they appear to deviate from humans, at least. Furthermore, Sibley's view would require us to have to accept the (absurd) idea that because toads and vultures are not in fact, say, humans, these animals only *seem* ugly.

²⁰ Order-of-determination worries also hover around these accounts. In some cases, deformity has been claimed to reside in ugliness, rather than the other way around. For example, Aquino (2017, 2020) has noted that some healthy and functional appearances—such as what is sometimes called “single-lidded” Asian eyes, and cellulite—have been seen as deformities to the extent that they are ugly. This is similar to Hume's claim that “pleasure and pain... are not only necessary attendants of beauty and deformity, *but constitute their very essence*” (Hume, 1739/1978: 300, my emphasis). If it cannot be demonstrated that such cases are not in fact true cases of deformity (see e.g., Hofmann, 2019), then the order-of-determination will be reversed in such cases, and so the ugliness of such cases will not be able to be understood in terms of deformity.

²¹ At a stretch, we might think that experts of mudflats, vomit, and faeces, may have norms for these things; but it isn't plausible to suggest that non-experts are only right in thinking that cases of these things are ugly just when they coincide with those cases that deviate from the norms of the relevant experts. Indeed, sometimes an understanding of the way ugly things are adapted to their functions may *contribute* to their ugliness. Rosenkranz (1853/2015: 35) notes that an animal can be ugly *just because* it is perfectly adapted to its environment, as in the case of the camel, sloth, squid and toad, and Brady (2011) argues that knowing that the aye-aye's long finger is perfectly adapted for scooping insects out of tree trunks makes it even uglier.

Failing Sibley's disjunctive offering, and accounts that make all cases of ugliness attributive generally, Paris (2017) has suggested that a deformity-based view can be partially saved by positing the following view:

Ugliness-Deformity-Displeasure: For any object, O, if O is deformed in the sense of its parts inhibiting, hindering or frustrating O's proper ends, and O is displeasing, *pro tanto*, as it is experienced as deformed, then O is ugly.

This hybrid account—which combines response-dependent and response-independent elements—has many advantages. It offers a more substantive characterization of deformity, and is able to accommodate both central cases of ugliness—such as congenital deformities and cases of mutilation—as well as more peripheral cases, such as ugly mathematics. But, in addition to not providing a closed account of ugliness, it may not provide a sufficient account either. Someone might know that hair removal frustrates the thermo-regulatory function of the skin and regard this with displeasure—not least when cold—but nonetheless find depilated skin beautiful, and therefore not ugly. Similarly, someone might know that nails manicured to a delicate shape and thickness have had their function of aiding dexterity compromised and find displeasure in them to this extent—not least when faced with a practical task—but nonetheless find the nails beautiful (if impractical), and therefore not ugly. Moreover, as we will see shortly, in hybridizing response-dependent and -independent elements, this account may also inherit the limitations faced by purely response-dependent accounts.

In sum, the principal problem faced by accounts which make response-independent elements (at least) necessary for ugliness—and the reason why Paris needs to aim for a sufficient account involving response-independent elements—is that there is just too much heterogeneity in the kinds of things that are ugly for any such account to succeed. Call this the problem of heterogeneity, for short.

Turning away from those accounts which feature response-independent elements, the most plausible existing response-dependent account of ugliness which is not based on disgust is the following:

Ugliness-Displeasure: An object, O, is ugly for person, P, if and only if O is disinterestedly displeasing to P in standard conditions (articulated by, for example, Pepper in places, e.g. 1949: 13, and Rosenkranz in places, e.g. 1853/2015: 83).

While it is undoubtedly true that many ugly things displease us, and may even do so apart from any interest (though see §4 for reasons to doubt this), this doesn't seem to be either necessary or sufficient for ugliness.

On the one hand, displeasure (even of the disinterested kind) isn't sufficient for ugliness. Many things that are displeasing are not ugly, including things that are merely boring, artistically disappointing, or as we have seen in §2, frightening. The problem here is the opposite of the heterogeneity problem: if accepted, *Ugliness-Displeasure* would make ugliness reside in a much more heterogeneous range of properties than ugliness in fact does.

On the other hand, as the response that constitutes ugliness on this account is exhausted by its hedonic valence, this account makes it difficult to see how we can enjoy ugliness and it remain ugly—the so-called “paradox of ugliness” (Moore 1998: 420). This is borne out by the fact that the concept UGLINESS is what's termed ‘objectionable,’ such that utterances such as “Isn't it ugly? I love it!” make perfect sense. To be clear, the paradox here does *not* lie in cases where some aspect of ugly things pleasingly compensates for their ugliness. There is surely pleasure to be found in appreciating the skilled depiction of ugly things such as “the lowest animals and dead bodies,” and learning about them, as Aristotle suggests in the *Poetics* (c. 335/1964, 1448b: 15-20). And there may well also be self-congratulatory pleasures in recognizing that we are sufficiently emotionally developed to be able to engage aesthetically with a range of environments, including ugly ones, as Brady suggests (2013: 178-182).²² In these cases, there is no paradox on *Ugliness-Displeasure*, as the ugliness of the objects concerned is not the object of the pleasure *per se*. The problem for *Ugliness-Displeasure*, and the way in which it leads to paradox, resides in cases where the pleasure comes just in the appreciation of ugliness *itself* and the ugliness is not thereby eliminated.

One such case of this is where children find themselves enraptured by disfigured individuals, where it is likely that the anomalousness of the disfigured individual contributes to both the individual's ugliness, as we saw in §3.1.2, as well as their ability to fascinate. Moreover, as Matthew Kieran (2004: 75-86) notes, sometimes we delight in ugliness itself in art: in looking at Freud's *Benefits Supervisor Sleeping* (1995) and Saville's *Propped* (1992) we may find ourselves bewitched by the lurid manner in which the subjects of these portraits are presented, and in the case of Serrano's *The Morgue* series we may simply and brutally delight in the macabre and sordid details (see also Eco 2007: 113, 220-221; and Jarrett 1957: 273).

²² For recent philosophical discussions of the so-called paradoxes of negative affect generally, see the contributions in Levinson (2014); for recent psychological perspectives, see Rozin et al. (2013) and Menninghaus et al. (2017).

In the face of this, if we do not want to jettison the idea that we sometimes take pleasure in ugliness as such without eliminating the ugliness, and wish to avoid paradox, then displeasure cannot be necessary for ugliness.

Both of these unacceptable consequences—of ruling out the pleasingly ugly and of making ugliness a widespread feature of the world—stem from the fact that such response-dependent accounts render the property of ugliness *too thin*. As such, call this the problem of skinniness, for short.

Finally, it is instructive to consider an account of ugliness that cannot be situated easily under the rubric of response-dependence and response-independence, which is as follows:

Ugliness-Privation: Some Object, O, is ugly if and only if O does not contain any beauty (held by e.g. Augustine, whose views are summarised by [Chapman 1939](#); and more recently, [Santayana 1896/1955](#): 17, 32; and [Beardsley 1981](#): 501).

Immediately, this account is confronted with the problem of substituting one difficult problem for another—for what is beauty? And even forms of this view that do not flagrantly buck-pass, such as Augustine's—which is thought to be that ugliness is the lack of form (see e.g. [Chapman 1941](#): 47-8)—face a problem that is no less severe.

On these views, ugliness is merely the absence that lies below the smallest possible magnitude of beauty, which is to say that it is *nothing*. There are only beautiful things with different magnitudes of beauty. For Augustine, for example, whenever there is some being, there is form, and so if ugliness is formlessness, nothing can be genuinely ugly in the sense of not being beautiful, *otherwise it would not be* (for this characterization of Augustine, see [Chapman 1941](#): 48).

For the same reason, accounts of this type are typically committed to the idea that there is not, in fact, anything that is neither beautiful nor ugly: everything either has some modicum of beauty, or it has none, and it is “ugly.” The problem with such an ontological view of ugliness is that it requires a heavily revisionist understanding of the meaning of UGLINESS: ugliness is conceived to be gradable—something can be more or less ugly—and there can be things that are neither ugly nor beautiful. We commonly report that some things are ‘plain’ to indicate that something is neither ugly nor beautiful.²³ To square the ontology of ugliness with the meaning of the concept of ugliness, such a view would need to posit that we conceive of a certain modicum of beauty as aesthetically neutral, and that quantities above this are conceived of as beautiful and quantities less than this are conceived of as ugly to some extent. That is to say, to accept such a view would be to accept that we regularly say that some things are ‘ugly’ or ‘plain’ when they are, in fact, beautiful.

The general problem here is that such accounts do not preserve the logical structure of UGLINESS to its negations: ugliness is gradable, it admits of an opposite—beauty—which it stands in opposition to across a neutral mid-point such that something is not ugly merely in virtue of not being beautiful.²⁴ Call this the problem of UGLINESS’ logical contours, for short.

§3.2.2 *How Do the Alternative Proposed Intentions of Ugliness Support Ugliness-Disgustingness?*

Beginning with the accounts that seem to feature response-independent elements, *Ugliness-Disgustingness* can solve the heterogeneity problem by accommodating the range of cases that these accounts aim to capture, as well as the counterexamples they face.

Beginning with *Ugliness-Disunity*, as we have seen in §2 and §3.1, even “merely formal uglinesses,” such as cases where the parts of the face are slightly asymmetrically arranged, or where more feminine features appear on a

²³ Brady (2011, 2013) has suggested that ‘plain’ does not, in fact, mean aesthetically neutral, on the grounds that it is common to hear ‘plain’ used to indicate an aesthetic demerit. Brady is surely right that ‘plain’ is often used to indicate an aesthetic demerit; but it is not clear that ‘plain’ is never correctly used in the sense of being aesthetically neutral; or that, language aside, there is nothing that is aesthetically plain. The number 17, for example, seems to be a good case of something that is aesthetically neutral, and might be truly described as ‘plain’ in the sense of being neither ugly nor beautiful (this example comes from Moore, 1998; for other examples see Rosenkranz, 1853/2015: 37-8, 56, 115). Others philosophers who have claimed that not all negations of beauty are judgements of ugliness include Burke (1759/1990), Thomson (1992), Wenzel (1999) and Shier (1998), the lattermost of which claim that this is an “obvious fact of the matter” (418).

²⁴ There are some who seem to deviate from this understanding of UGLINESS. Some, such as Bosanquet (1915/1962) and Alexander (1966), hold that some cases of ugliness are also cases of beauty, albeit difficult ones (cf. the discussion of Greenberg and Fry in §3.1.2). Alexander (1966: 164), for example, claims that “Ugliness... is an ingredient in aesthetic beauty, as the discords in music or the horrors of the tragedy. When it becomes ugly as a kind of beauty it has been transmuted. Such ugliness is difficult beauty.” As Moore (1998: 418) rightly notes, one problem with such views is that they seem to “muddle a thing’s ugly aspects with others coexisting in close proximity to them.” Such views might also range over concepts of varying thickness: with UGLINESS being intended in a thick sense, and with BEAUTY being intended in a thin sense. As I show here, and in the final section of this paper, we can explain the fact that we can take pleasure in ugliness in art without thereby being forced to say, for example, that some cases of ugliness are ‘difficult’ beauties in a thick sense.

man's face, seem to elicit disgust in some people, and are seen as ugly to that extent (e.g. [Krendl et al. 2006](#); [Klebl et al. 2020](#); [Jones et al. 2012](#); [Little et al. 2011](#)). Even architectural ugliness—which most often lies in formal disunities—has been shown to disgust, and to be found to be ugly to that extent ([Klebl et al. 2020](#)). Moreover, *Ugliness-Disgustingness* can accommodate the counterexamples that *Ugliness-Disunity* faces, since even simple cases of ugliness which do not admit of parts—such as cases of sliminess—have been found to disgust (e.g. [Haidt et al. 1994](#)).

Turning to the attributive accounts of ugliness—*Ugliness-Deformity*, *Ugliness-Deformity-Displeasure*, and Sibley's (2001) disjunctive offering—the full range of deviations that can be accommodated by these accounts have been shown to tend to disgust, including: violations of the ideal bodily envelope, including acquired and congenital deformities; the dirty, diseased and unhealthy—captured in Sibley's adjectives of e.g. “dirty,” “squalid,” “begrimed,” “soiled,” “polluted,” “degraded,” “debased,” “diseased,” “withered,” “emaciated,” “swollen,” “bloated,” “discoloured,” “wizened,” “stunted,” and “blotchy”; the decomposing—captured in Sibley's adjectives of “spoiled,” “decaying,” “blighted,” and “festering”; violations of socio-morally norms—captured in Sibley's adjectives of “evil,” “spiritually foul” and in deviations from the norms of mathematics that Paris (2017) points to; as well as cases that are deviant in the sense that they blur the animal-human distinction—as captured by Sibley's adjectives of the “coarse,” “base,” “brutish,” and “subhuman.” Moreover, *Ugliness-Disgustingness* is able to capture the predicative cases of ugliness that these accounts cannot accommodate—such as the ugliness of some ‘low’ species of animals and bodily products—since these things have been shown to disgust (see §§2.1 and 3.1.2 especially, for summaries of the relevant evidence).

Turning to the most plausible response-dependent account of ugliness, unlike *Ugliness-Displeasure*, *Ugliness-Disgustingness* is able to elegantly account for the fact that many cases of ugliness are indeed displeasing, without encountering the skinniness problem—that is, without falsely making ugliness a more ubiquitous property than it in fact is and falsely denying that there are cases of ugliness that are pleasing to that extent.

The first step to see why *Ugliness-Disgustingness* can accommodate cases of pleasing ugliness comes in recognizing that experiences of disgust are sometimes pleasing.

As we have seen in §3.2.1, one of the principal cases where ugliness itself is found to be pleasing are cases of morbid fascination. Just as *Ugliness-Disgustingness* predicts, the same is true in some cases of disgustingness, as indicated by approving refrains of “Gross!” (often by children and teenagers) and Plato's report of Leontius' response to the sight of corpses:

He felt a desire to see them, and also a dread and abhorrence of them; for a long time he struggled and covered his eyes, but at length the desire got the better of him; and forcing them open, he ran up to the dead bodies, saying, ‘Look, ye wretches, take your fill of the fair sight’. ([Plato, c. 375/2015](#): 109).

Empirical evidence also supports such an idea. Rimé et al. (2005) found that the disgust felt in response to disgusting images was associated with the tendency to be fascinated, as well as the tendency to want to withdraw (see also [Oosterwijk 2016](#)).

The second step to seeing how *Ugliness-Disgustingness* avoids the skinniness problem comes in recognizing, first, that disgust, like other emotions, is a complex state, which in addition to having a hedonic valence, is widely thought to paradigmatically involve patterns of appraisal, physiological changes, phenomenological states (‘feelings’ and ‘senses’), and tendencies to act in characteristic ways, as we saw in §2; and, second, that it is the non-hedonic components of the disgust response, and not the particular hedonic valence of a given disgust response, that govern whether something is ugly. As thick properties are plausibly thought to be good or bad *in a specific way*, it is plausible that it is the non-hedonic components that determine the particular way in which ugliness is good or bad as such.²⁵ So when something has the tendency to be pleasant or unpleasant in a way which leads us to want to withdraw or purify ourselves, and represent the object as contaminating, then it is, I suggest, good or bad in the specific way that *ugliness* is good or bad.

This also neatly explains why *Ugliness-Disgustingness* avoids making ugliness more widespread than it actually is. Those things that are displeasing, such as the boring and, as we have seen in §2.2, the frightening, are not ugly because they are not bad in the particular way in which ugliness is bad (when it is indeed bad).

Finally, turning to privation accounts, *Ugliness-Disgustingness* does not fall foul of the problem of UGLINESS' logical contours. In addition to the fact that *Ugliness-Disgustingness* can accommodate the fact that UGLINESS stands in a determinate-determinable relationship with other aesthetic concepts, such as the HORRIFYING and the UNCANNY (as we saw in §2), *Ugliness-Disgustingness* can also accommodate three further logical features of UGLINESS.

²⁵ Assuming that notions such as goodness or badness can be understood naturalistically in terms of the tendency to please or displease.

First, *Ugliness-Disgustingness* can make perfect sense of the fact that UGLINESS is gradable, as emotional dispositions are paradigm cases of things that admit of degrees: mutilated and decomposing bodies tend to be more disgusting and ugly than unwashed living bodies.

Second, *Ugliness-Disgust* can also make sense of the fact that UGLINESS admits of a logical opposite—BEAUTY—which it stands in opposition to.

If, according to *Ugliness-Disgustingness*, ugliness is the disposition to disgust, then one might naturally expect there to be evidence that beauty is the disposition to produce an emotion that is the opposite of disgust in some sense; and indeed, such evidence exists.

The emotion that sits in opposition to disgust is thought to be the emotion that has variously been called ‘elevation,’ ‘kama muta,’ ‘ecstasy,’ and ‘love,’ among other terms (e.g. Haidt 2000), and which has been characterized as involving being ‘moved by love,’ feelings of upliftment, unity, inspiration and self-transcendence, and feelings of warmth in, and opening up of, the chest, among other things (see e.g. Zickfeld et al. 2019; Algoe & Haidt 2009; Landis et al. 2009; Doran n.d. a; Doran n.d. b). In contrasting the disgusting and the ‘elevating,’ Haidt (2000) notes that they can be understood as sitting on a vertical axis, with those things that seem to blur the human-animal distinction being regarded as disgusting, and giving rise to a desire to distance oneself from the object in question, and protect the boundaries of the self from it; and those things that seem to blur the human-god distinction being regarded as ‘elevating,’ and giving rise to a desire to open up to, or even merge with, the ‘elevating’ object. Similarly, in line with Miller’s (1996: 137, 140-1) suggestions, there is evidence that feelings of love diminish our sensitivity to disgusting things—as where parents seem inured to what, to others, would be disgusting, and indeed ugly, in their own children (Case et al. 2006)—and can even weaken the boundaries of the self to allow for the transgression of the ordinarily-disgust-defended boundaries of the self—as occurs in sexual communion with those we find beautiful (Borg & de Jong 2012; and Zsok et al. 2017).

Moreover, although it is far beyond the scope of this article to make a sustained case that beauty (at least in a certain thick sense) is the disposition to give rise this special emotion, it enjoys a good deal of intuitive and empirical support. Correlational and experimental studies have shown that appreciation of beauty gives rise to just such a unitive state (e.g. Doran n.d. a; Doran n.d. b; Diessner et al. 2008) and a number of philosophers have variously thought that the beautiful might be constitutively linked to what has been variously called ‘love’ and ‘elevation,’ and bring us closer to the divine, including Plato, Pseudo-Dionysius, Ficino, and more recently, Hepburn and Nehamas (for a summary, see, e.g. Riggle 2014; and Doran n.d. a; Doran n.d. b).

Indeed, such a conception of beauty accords well with what some philosophers of ugliness have said about how some things manage to be beautiful even though they would ordinarily be ugly in most contexts to most people, and provides further cases where differences in appraisals of what might be termed ‘animality-godliness’ can make all the difference when it comes to ugliness and beauty (see also §3.1.2). Rosenkranz (1853/2015) pinpoints two kinds of such cases. The first is certain cases of people suffering from progressive wasting disease such as tuberculosis (45). The second is certain cases of artworks that depict symptoms of disease and violations of the bodily envelope, and in particular, depictions of the crucifixion and of the execution of martyrs in churches (159-161). In both cases, Rosenkranz suggests that what makes these cases beautiful is that they are expressive of uniquely human endowments and capacities—those that are nobler and closer to godliness—and indeed expressive of these endowments and capacities *transcending* the more animal aspects of humans, which would ordinarily be found ugly. In the case of wasting diseases, Rosenkranz notes that “emaciation, a burning glaze, the pale or fever-blushed cheeks of the patient can make the essence of the spirit more directly visible” and that “the entire body in its transparent morbidity no longer means anything for itself and has become through and through the expression of a spirit that is leaving, independent of nature” (45). In the case of artworks that display disease and alteration of the bodily envelope, they are only beautiful to the extent that they “make visible the victory of inner freedom over outer violence” (161). In short, even the paradigmatically disgusting and ugly can, when it moves us by expressing the transition from the animal to the uniquely human and godly, become beautiful.²⁶

This account of the opposition between ugliness and beauty also elegantly explains *where* the opposition between them lies. In addition to lying in opposite sources, as we have just seen in e.g. cases of moving up and down the animal-human-god continuum being found beautiful and ugly respectively, disgust and what has variously been termed ‘elevation,’ ‘love,’ ‘ecstasy’ and ‘kama muta’ (among other terms) stand in opposition to one another in their

²⁶ Grunewald’s Isenheim crucifixion (c. 1515) may be just such an example of this, and is one of the examples that philosophers of ugliness, such as Stolnitz (1950: 2), think a satisfactory account of ugliness should be able to accommodate. Christ’s figure has many disgusting and ugly features—the body is covered in cuts and is grotesquely contorted, and the skin is grey and displays symptoms of ergotism—and yet, Christ is depicted as larger than all the other figures, in line with the words that are spoken by John the Baptist in the painting (“He must become greater, I must become less”) and his contorted fingers seem to be reaching up to God. The scene was painted for a hospital which treated a great number of cases of ergotism, and seeing an image of Christ suffering from, and indeed, overcoming and transcending, a similar affliction to themselves would likely have been very moving, and beautiful.

functional outputs—with the functional outputs of the one emotion pulling in the opposite direction of the functional outputs of the other. If disgust is the emotion that, in the broadest functional terms, attempts to maintain the boundaries of the self by encouraging us to exclude certain things, the state that has been termed e.g. ‘elevation,’ and ‘ecstasy’ is the emotion that attempts to, momentarily, dissolve the boundaries of the self and let things in. As such, it is clear how UGLINESS is the opposite of BEAUTY, and how the self-same thing cannot, overall, be beautiful and ugly, at least in a certain thick sense of each: an object’s disposition to give rise to this special emotion will neutralize an object’s tendency to disgust, and once experienced, they will be readily recognized to be opposites.

It is important to stress that, insofar as independent investigations of both whether there is an emotion that is opposed to disgust, and what the response elicited by beauty is, point to the special state of mind described above, *Ugliness-Disgustingness* is furnished with further support when seen in light of the logical opposition between BEAUTY and UGLINESS.

To summarize the overall argument from intensions: Examination of the adequacy of the competitors to *Disgustingness-Disgust* and of relevant evidence variously shows that, first, *Disgustingness-Disgust* is the most adequate putative account; second, *Ugliness-Disgustingness* is not subject to Sibley’s objection; and third, *Ugliness-Disgustingness* is explanatorily potent in revealing for example why ugliness is distributed in the way it is in the world. Examination of the adequacy of the proposed accounts of ugliness reveals that *Ugliness-Disgustingness* is the most adequate putative account of ugliness in being able to accommodate, first, the heterogeneity of ugliness; second, the fact that cases of ugliness can be enjoyed as such; and, third, the logical structure of UGLINESS.

§4 Functional Arguments

Looking past what ugliness and disgustingness reside in respectively, a second broad way of arguing in favour of *Ugliness-Disgustingness* is by asking: do ugliness and disgustingness *behave* in the same way? In this section, I discuss just one of the important ways in which they do, namely that things that are ugly and disgusting both obey the magical law of contagion, and that the best explanation of this is *Ugliness-Disgustingness*.²⁷ In demonstrating that this is true, I show that ugliness is not an exclusively formal property or an aesthetic property (in a certain sense), and in turn why Brady’s (2011) objection to the view that disgust and ugliness are linked in a simple way is not successful. Moreover, I also argue that the fact that contamination is central to disgust helps to illuminate an important artistic value of ugliness, in line with my discussion of the functions of the horrifying in §2.2.

§4.1 The Argument from the Law of Contagion

As we have seen in §2.1, disgusting entities are represented as contaminating. Rozin et al. (1986) showed that dipping a dead, sterilized cockroach in a glass of juice rendered the juice and glass disgusting. The representations of contamination that disgust gives rise to are aliefs (Gendler 2008; Doran, in press): that is, they occur and exert a defeasible influence on our behaviours even where we do not assent to the idea that the disgusting object presents a danger of contamination. Rozin et al. (1984) found that participants were averse to the idea of, for example, eating soup stirred with a brand-new fly swatter or from a brand-new bedpan, even though they knew that they presented no threat of contaminating them.

In addition to occurring when individuals do not rationally assent to the idea that something is actually contaminating, there is also evidence that representations of contamination can even emerge when there is no physical contact between an individual and the disgusting object. Hebl and Mannix (2003) and Kim and Kim (2011) found that people regard people who sit close to murderers and obese people as contaminated. Indeed, even visual contact with disgusting objects results in contamination representations in certain contexts: pregnant women, across cultures and epochs, have tended to think that the mere sight of disgusting things will contaminate their unborn fetuses (so-called maternal imagination representations, see Doran, in press).

²⁷ In line with some of the claims discussed in §§2.1 and 3.1.2, the fact that both ugly and disgusting things obey a second law of magical thinking—namely, the law of similarity, according to which “superficial resemblance indicates deep resemblance or identity” (Rozin & Nemeroff 1990: 226)—provides another functional argument for *Ugliness-Disgustingness*. Rozin et al. (1986) found that people are more reluctant to hold a clean rubber replica of vomit between their lips than a clean rubber drain mat (in connection with this, see the discussion of false positives in §3.1.2). When it comes to disgustingness, the appearance-reality distinction tends to collapse. Similarly, many of the non-Western cultures whose aesthetic cultures have been studied hold the belief that outer beauty and ugliness is a reliable indicator of inner beauty and ugliness respectively. The Yoruba, for example, assume that moral beauty and ugliness cause their formal analogues, and describe cases that are found to be anomalous as ‘awobowa’ (“skin covers character”) (Lawal 1974: 240-1, see also the discussion of moral ugliness in §2.1). Looking at the West, Griffin & Langlois (2006) have shown that ugly people are thought to have negative characteristics relative to plain people, but beautiful people are not thought to have positive characteristics (see also Carmichael 1972: 497, and Workman et al. 2021).

So are ugly things represented as contaminating? Indeed they are. Just as visual contact with disgusting things has been represented to contaminate pregnant women's unborn children across cultures and epochs, so too has visual contact with ugly things. Rublack (1996: 96-97) notes that in the South-West of Germany, ugly people were removed from public in order to protect the unborn children of pregnant women. In one case, a court in Weisen ordered that a woman with "horribly ugly hands" should cover them in public so that pregnant women would not be disturbed by the sight, and their unborn children become deformed as a result. Indeed the same worry about the effect of the sight of ugliness on unborn children motivated some of the so-called "ugly laws"—which were on statute books across the US from the 1860s until the 1970s and prohibited "unsightly" people from exposing their unsightliness in public (Schweik 2009: 153). And in a far-removed epoch and culture, Horton (1965: 12) notes that among the Kalabari, pregnant women are advised not to look at the ugly spirit sculptures "lest their children acquire big eyes and a long nose, and so turn out ugly." The best explanation of the fact that both ugly and disgusting things are thought to be contaminating is, I submit, that *Ugliness-Disgustingness* is true.

It is instructive to consider two possible objections to this argument, as the reasons why they fail also suggest that ugliness is not a merely formal property, or an aesthetic property in a certain sense, as well as helping to show that ugliness performs an artistically important function.

One possible objection is as follows: even if all ugly objects are disgusting—and as a result seem contaminating—they cannot be ugly *in virtue of this*. Whereas being disgusting—and as a result tending to give rise to contamination aliefs—can be a function of non-perceptual properties of objects, ugliness is only a function of the way an object appears. To see this, consider the following. For an object that is otherwise not ugly to acquire the property of ugliness, it might naturally be thought that it is necessary that there is a change in the object's appearance.²⁸ By contrast, for something to newly acquire the property of being disgusting—which includes the tendency to generate contamination aliefs—no such change in the object's appearance is necessary. As the studies by Rozin and colleagues discussed above show, mere contact of an innocuous object with a disgusting object is sufficient for the contacted object to become disgusting without any subsequent change in its appearance. Even where contact is perceived, becoming disgusting is at root ideational in these cases: the recipient of the contact is represented as being contaminated with an invisible contaminant—a disgusting essence—which would remain even after any perceivable trace of the source had been removed.

If this is correct, then assertions that ugly things are contaminating represent loose or confused ways of thinking. Take the case of the woman ordered to cover her "horribly ugly hands" discussed above, and let us suppose that the cause of her ugliness was leprosy. We might borrow the sense-reference distinction from the philosophy of language and argue that to say that the woman's "horribly ugly" hands are contaminating is to get the referent right, but the mode of presentation wrong. The woman's leprosy is what appears ugly and also what is contaminating. So the questions "what's ugly about this woman?" and "what's contaminating about this woman?" can be correctly answered with the same response in each case: "Her leprosy." But it is only the perceivable aspects of the leprosy that make it appear ugly, and it is only leprosy's ability to be able to transmit harmful invisible residues that makes it contaminating. So the questions "what's ugly about this woman's leprosy?" and "what's contaminating about this woman's leprosy?" do not admit of the same correct answers. In the former case, the correct answer is "its appearance in the form of disfiguring sores." Whereas in the latter case, the correct answer is "its ability to transmit the bacteria *Mycobacterium leprae*."

A second possible objection is: even if all ugly objects were disgusting—and tend to generate contamination aliefs as a result—they would not be appreciated *qua* ugliness to the extent that they generate such aliefs, in the sense that ugliness is an *aesthetic* property in a certain sense. Whereas to respond to an object aesthetically requires responding in a disinterested fashion, since contamination aliefs are one component of the disgust response, if an object activates the disgust system it is, *ipso facto*, responded to in an interested manner to some extent. To represent an object as being able to transmit a harmful essence through some kind of contact is arguably just to think of the practical consequences of coming into contact with it.

On this view, in the case of the German woman ordered to cover her ugly hands in public, a similar story to the one outlined in the formalist objection above holds: The woman's leprosy is what seems ugly and also what

²⁸ Brady (2011: 85) may hold to just such a formalistic constraint: "the negative aesthetic value that we call 'ugliness' is anchored in some ways in the object's non-aesthetic perceptual properties, such as colours, textures, forms, arrangements of elements, sounds and smells." In the hands of some philosophers, an argument might be pressed *in favour* of *Ugliness-Disgustingness* on the same formalistic conception of ugliness. Contrary to the idea that disgusting is at root ideational, it has been thought that disgustingness as well as ugliness are essentially formalistic properties, and that disgustingness is an *aesthetic* property to the extent that this is the case. Kolnai (1998), for example, writes that "disgust, in contrast with fear, bears exquisitely on *Sosein*—the sensible and perceptible nature of things, as distinct from their causal efficiency and impact" (586) and "in keeping with its non-existential and perceptual emphasis, disgust is an eminently *aesthetic* emotion" (587). But, such a view of disgust is false, and, as we will shortly see, so too is this view of ugliness. One reason why *Ugliness-Disgustingness* is true is because *both* disgustingness and ugliness are sensitive to matters of "causal efficiency and impact" in Kolnai's words.

seems contaminating, but only those aspects of her leprosy that are responded to apart from any practical interest are able to be responded to aesthetically, and as such, these cannot include leprosy's seeming ability to be able to transmit harmful invisible residues. As a result, the woman's leprosy cannot be appreciated aesthetically to the extent that it is disgusting.

So, far from supporting *Ugliness-Disgustingness*, it may be thought that the claims that ugly things are contaminating cited above are either loose ways of speaking or false, and that the fact that disgusting objects obey the law of contagion is one of the reasons why *Ugliness-Disgustingness* is *false* rather than true.

How should this be settled? One might be tempted to appeal to evidence discussed in §3.1.2, such as Klebl et al.'s (2020) finding that the perceived ability of a depicted object to contaminate has been shown to contribute to the unattractiveness of those objects, even when controlling for the content of the images, and as a result, controlling for many aspects of their appearance. But since the images used in Klebl et al. (2020) are not perceptually identical, and one can find something unattractive for reasons other than its ugliness, a sceptic of *Ugliness-Disgustingness* might not find such evidence entirely persuasive.

Failing this, an alternative way of settling this matter is by asking if there are cases where it is clear that competent users of the concept UGLINESS assert that something is contaminating to the extent that it is ugly *qua* ugly, even on reflection, and where there isn't any reason to think that they may be erring. So are there such assertions among competent users?

Indeed there are. The artist Hutchinson (2002: 152, 154) characterizes ugliness as "the failure of surfaces," and explicitly likens this failure of surface to "contagion," noting that the ugly object not only "eats away the distance that keeps the world at bay—it also threatens to make the subject ugly too: to turn you back into your component parts." Similarly, the architectural theorist Cousins (1994: 63) explicitly claims that the ugly is contaminating: "...the ugly object has trespassed into a zone of purity... the ugly object is voracious and, through contamination, will consume the entire zone."

Indeed, Hutchinson (2002: 152) shows that he is aware of the threat posed to the view that ugliness is seen as contaminating by the objection based on disinterest when he advances the view that ugliness "cuts through a still dominant economy in art of detachment and exclusion" and "offers a model for the relationship between spectator and artwork of immediacy, urgency and proximity." This suggests that Hutchinson, who is surely competent with the notion of ugliness given that he regularly creates deliberately ugly art and writes about the nature of ugliness in light of his artistic work, endorses the idea that ugly is contaminating *qua* ugliness, on reflection and even when faced with the idea of disinterest. In fact, far from suggesting that the appreciation of ugly objects cannot involve contamination inferences to the extent that they are appreciated aesthetically, Hutchinson suggests that, on the contrary, ugly objects cannot be appreciated disinterestedly and still be appreciated *as ugly* objects. Indeed, as we saw in §3.1.1, it is precisely because disgust functions to protect the boundaries of the self (broadly construed) that the optimal conditions for experiencing an object's ugliness include facilitating its ability to trigger disgust by coming close to it, or imagining engaging with it in a practical manner by, for example, imagining touching it.

In additional support of the idea that the ugly seems contaminating, it is also important to note that, as per §§2.1 and 3.1.2, since numerous philosophers writing about the nature of ugliness have agreed that socio-moral violations such as vicious actions and impure mathematics—which tend to arouse a practical interest and are abstract in the sense of being objects of contemplation rather than perception—are cases of ugliness, then there is no obstacle to an object being ugly to the extent that it seems contaminating.

Apart from providing an argument for *Ugliness-Disgustingness* in itself, the fact that the ugly *qua* ugliness seems contaminating also provides two other insights.

First, this provides yet more support for the idea that ugliness performs unique artistic functions, including some of those already discussed in §2.2 concerning the horrifying ugliness of Alakoro masks and cases of uncanny ugliness. It is precisely *because* it is part of what it is to be ugly to seem contaminating, and as a result, part of what it is to appreciate ugliness *qua* ugliness to approach it in an interested fashion, that ugliness has a distinctive and valuable artistic function that is quite lacking in, for example, the beautiful: namely, to confer a sense of immediacy, proximity, and indeed invasion. In line with this, Cousins (1994: 63) observes that "the dirt is an ugly deduction from 'good' space, not simply by virtue of occupying the space, but by threatening to contaminate all the good space around it. In this light, 'dirt', the ugly object, has a spatial power quite lacking in the beautiful object."

Second, the fact that ugliness *qua* ugliness is contaminating also shows why Stolnitz's (1950) distinction between 'invincible' and 'non-invincible' ugliness collapses, and Brady's (2011) use of a similar distinction to object to the idea that disgustingness and ugliness are related in a simple manner (as they are on *Ugliness-Disgustingness*) is not successful.

Stolnitz (1950: 6) claims that there are two types of ugliness—'invincible' and 'non-invincible' ugliness—where invincible ugliness is not aesthetic because the experience of invincible ugliness is so "intense" that "it subverts and destroys the attitude of aesthetic contemplation" and we "withdraw attention." Brady (2011: 91) deploys a similar distinction when she argues that the ugly cannot be the disgusting in the following way:

- (P1) All instances of ugliness are instances of an aesthetic property;
- (P2) All instances of aesthetic properties necessarily allow for “sustained perceptual attention”²⁹;
- (P3) Some instances of disgustingness give rise to a disgust response that is too “intense” and “overwhelming” to allow for sustained perceptual attention;
- (C) Some instances of disgustingness are not instances of ugliness.

Brady’s mistake here is to assume that ugliness is an *aesthetic* property in the sense of necessarily allowing for disinterested contemplation, and Stolnitz’s mistake is to claim that some cases of ugliness can be appreciated *aesthetically* in that sense as cases of ugliness. The fact that it is *part* of what it is to respond to ugliness *as ugliness* to take a practical interest in it vis-à-vis contamination suggests that it is not *ever* an aesthetic property in this sense, and therefore always ‘invincible,’ to the extent that it involves representations of contamination. In this way, ugliness not only stands in opposition with beauty, but with aesthetic appreciation in a certain sense more generally. As we have seen, however, this doesn’t mean it is not artistically valuable, or indeed enjoyable in some cases.

And if any further assurance were needed to support the idea that even the *most* disgusting things can be ugly even if they’re not aesthetic, we only need to return to where I began in this paper. G.E. Moore (1903/1922: 83) envisions the ugliest world imaginable as one “containing everything that is *most* disgusting to us” (my emphasis) and Bartlett (1937: 211-2) reports that the ugliest thing she has ever seen is a street of shabby houses which she has to “hold [herself] away from... in order not to be sickened by its repulsiveness.” These worlds and streets are not extremely ugly in spite of their capacity to elicit an unbearably intense disgust, but precisely *because* of this ability; and that, I suggest, is because *ugliness is in the gut of the beholder*.

To summarize the argument from the law of contagion: disgustingness and ugliness both function in the same way in giving rise to contamination representations, and as a consequence, this shows why a third objection to *Ugliness-Disgustingness* does not succeed, and helps to illuminate the unique artistic functions that ugliness serves. To this extent, *Ugliness-Disgustingness* is supported.

§5 Conclusion

When you take the arguments and insights from the argument from ostensions, argument from intensions, and argument from the law of contagion all together, I submit that it becomes clear that *Ugliness-Disgustingness* provides the most extensionally and explanatorily satisfactory account of ugliness available.

Ugliness-Disgustingness has been shown to have a number of advantages over its competitors. *Ugliness-Disgustingness* can accommodate the vast heterogeneity of ugly things—including the fact that there are simple and complex cases of ugliness, attributive and predictive cases, and perceptual and non-perceptual cases. At the same time, *Ugliness-Disgustingness* respects that ugliness is not a thin property of the world in the sense that not everything that is displeasing is ugly, and indeed, that some cases of ugliness are enjoyable while remaining cases of ugliness. *Ugliness-Disgustingness* also respects the logical structure of UGLINESS, and indeed *explains* why it is as it is, including the fact that it is gradable, admits of an opposite across a neutral mid-point, and stands in a determinate-determinable relationship with properties such as the horrifying and the uncanny.

Moreover, in showing how the disgusting has in large part evolved to tend to reside in the threats posed by pathogens, I have demonstrated how *Ugliness-Disgustingness* is able to explain *why* it is that ugliness is distributed in the world in the particular way it is: including why ugliness tends to be concentrated in the animal domain over the domain of plants and the inorganic domain, as well as why the appearances of certain non-pathogenic entities—such as cases of “mere formal ugliness”—are found to be ugly. In showing that things that remind us of our animal nature and those things that are appraised as anomalous tend to be disgusting, I have further shown that *Ugliness-Disgustingness* can explain some facts about the variation in the set of things that tend to be found to be ugly across cultures and epochs. *Ugliness-Disgustingness* has also been shown to be able to explain some of the functions of ugliness. For example, given that ugliness can be contaminating as ugliness, *Ugliness-Disgustingness* reveals how ugliness has an invasive power not possessed by other properties; and given that the frightening tends to be more aversive when combined with the disgusting, *Ugliness-Disgustingness* is able to explain why certain ugly artworks such as war masks are so well-suited to their intended function.

Finally, and importantly, it has been shown that *Ugliness-Disgustingness* is able to withstand three of the most important objections to it. It has been shown that the most prominent group of counterexamples to *Ugliness-Disgustingness*, namely, those cases of ugliness that are frightening, are not counterexamples as they are ugly in virtue of their disposition to be disgusting rather than frightening. It has been shown that Sibley’s claim that disgustingness

²⁹ The reason why sustained perceptual attention is required seems to be because it takes time, and perhaps psychological effort, to set aside our practical interests in an object to appreciate its perceptual qualities for themselves.

is not ugliness on the grounds that disgustingness is, unlike ugliness, that which *warrants* disgust, is false, since disgustingness is just that which elicits disgust. It has been shown that Brady's objection that some cases of disgustingness are not cases of ugliness on the grounds that ugliness is always an aesthetic property and some cases of disgustingness are not aesthetic does not succeed as ugliness is *not ever* an aesthetic property in the sense concerned.

While none of these considerations are decisive in themselves, I submit that when taken together they constitute a powerful reason to think that ugliness just is disgustingness in the way specified in *Ugliness-Disgustingness* and *Disgustingness-Disgust*. Indeed, to the extent that there are counterexamples to the view, these need to be weighed against its considerable benefits.

In closing, I mention two important potential consequences and opportunities that stem from this view. First, if *Ugliness-Disgustingness* is true, then we are in a position to be able to offer a natural history of the capacity for ugliness—an issue that has been of interest recently to some philosophical aestheticians, such as Davies (2012). The answer to the question “which species have the capacity to see the world in terms of its ugliness?” that is suggested by *Ugliness-Disgustingness* is: “just those who have the capacity to feel disgust.”³⁰

Secondly, *Ugliness-Disgustingness* suggests that there are important ethical consequences of engaging with the world aesthetically. Paris (2017) rightly notes that some of the reluctance to discuss ugliness in philosophy may stem from a well-motivated desire to avoid offending others. But *Ugliness-Disgustingness* suggests that the ethical perils of ugliness may be much graver than causing offence by acknowledging it: if ugliness is disgustingness, disgustingness is the disposition to disgust, and disgust has been shown to lead to dehumanisation as we saw in §3.1.1, then in merely being sensitive to the ugliness of the world—and particularly of living things—we may be led to treat ugly things in immoral ways.³¹ If that's right, then two questions that suggest themselves are: Do we have a moral duty to blunt our faculty of taste to certain kinds of ugliness? And if this isn't possible, do we have a duty to correct for ugliness's nefarious effects?³²

References

- Ainsworth, Sarah E., & Jon K. Maner (2019). Pathogen Avoidance Mechanisms Affect Women's Preferences for Symmetrical Male Faces. *Evolutionary Behavioral Sciences*, 13(3), 265-271.
- Alexander, Samuel (1966). *Beauty and Other Forms of Value*. MacMillan and Co. Limited.
- Algoe, Sara B., and Jonathan Haidt (2009). Witnessing Excellence in Action: the 'other praising' emotions of elevation, gratitude, and admiration. *Journal of Positive Psychology*, 4(2), 105-127.
- Angyal, Andras (1941). Disgust and related aversions. *Journal of abnormal and Social Psychology*, 36(3), 393-412.
- Appel, Kenneth, and Wolfgang Haken (1986). The Four Color Proof Suffices. *The Mathematical Intelligencer*, 8(1), 10-20.
- Aquino, Yves S.J. (2017). “Big eye” surgery: the ethics of medicalizing Asian features. *Theoretical Medical Bioethics*, 38: 213-225.
- (2020). Is ugliness a pathology? An ethical critique of the therapeuticalization of cosmetic surgery. *Bioethics*, 34(4), 1-11.
- Aristotle (c. 335/1964). *Politics and Poetics*. Benjamin Jowett (Trans.). Heritage Press.
- Arnheim, Rudolf (1966). *Towards a Psychology of Art: Collected Essays*. University of California Press.
- Bain, Alexander (1859). *The Emotions and the Will*. John W. Parker and Son.
- de Barra, Mícheál, Lisa M. DeBruine, Benedict C. Jones, Zahid H. Mahmud, and Valerie A. Curtis (2013). Illness and childhood predicts face preferences in adulthood. *Evolution & Human Behavior*, 34, 384-389.
- Bartlett, Ethel M. (1937). *Types of Aesthetic Judgement*. George Allen & Unwin.
- Bataille, George (1957/1986). *Eroticism: Death and Sensuality*. Mary Dalwood (Trans.). City Lights books.
- Bayley, Stephen (2012). *Ugly: The Aesthetics of Everything*. Goodman Fiell.
- Beardsley, Monroe C. (1981). *Aesthetics: Problems in the Philosophy of Criticism*. Hackett Publishing Company, Inc (second edition).
- Benenson, Abram (1995). *Control of Communicable Diseases Manual*. American Public Health Association.

³⁰ Even looking within the human species, *Ugliness-Disgustingness* makes some interesting predictions: if the young and women have been consistently shown to be more sensitive to the disgusting than the old and men across cultures (Curtis et al. 2004; and Rozin et al. 1999; Oaten et al. 2009), then: are the young and women also more sensitive to the ugly across cultures?

³¹ Indeed, in connection with this see recent evidence from Workman et al. (2021).

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- Bennett-Levy, Jamie, and Theresa Marteau (1984). Fear of animals: What is prepared? *British Journal of Psychology*, 75, 37-42.
- Blomberg, Catharina (1990). A Strange White Smile. *Japan Forum*, 2, 243-251.
- Boone, Sylvia A. (1986). *Radiance from the Waters: Ideals of Feminine Beauty in Mende Art*. Yale University Press.
- Borg, Charmaine, and Peter J. de Jong (2012). Feelings of Disgust and Disgust-Induced Avoidance Weaken following Induced Sexual Arousal in Women. *PLoS ONE*, 7(9), e441111.
- Bosanquet, Bernard (1889). The Aesthetic Theory of Ugliness. *Proceedings of the Aristotelian Society*, 1(3), 32-48.
- _____ (1892). *A History of Aesthetic*. Cambridge University Press.
- _____ (1915/1962). *Three Lectures on Aesthetic*. Edited by Ralph Ross. The Bobs Merrill Company.
- Brady, Emily (2011). The Ugly Truth. *Royal Institute of Philosophy Supplement*, 69, 83-99.
- _____ (2013). *The Sublime in Modern Philosophy: Aesthetics, Ethics, and Nature*. Cambridge University Press.
- Buckels, Erin E., and Paul D. Trapnell (2013). Disgust facilitates outgroup dehumanisation. *Group Processes and Intergroup Relations*, 16(6), 771-780.
- Bullough, Edward (1912). 'Psychic Distance' as a Factor in Art and as an Aesthetic Principle. *British Journal of Psychology*, 5, 87-117.
- Burke, E (1759/1990). *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*. Edited by A. Phillips. Oxford University Press.
- Carlson, Allen (2004). *Aesthetics of Natural Environments*. Broadview Press.
- Carmichael, Peter A. (1972). The Sense of Ugliness. *Journal of Aesthetics and Art Criticism*, 30(4), 495-498.
- Carroll, Noël (1990). *The Philosophy of Horror: Or, Paradoxes of the Heart*. Routledge.
- Case, Trevor I., Betty M., Repacholi, and Richard J. Stevenson (2006). My baby doesn't smell as bad as yours: The plasticity of disgust. *Evolution and Human Behaviour*, 27, 357-365.
- Chapman, Emmanuel (1939). *St Augustine's Philosophy of Beauty*. Sheed and Ward.
- _____ (1941). Some Aspects of St. Augustine's Philosophy of Beauty. *Journal of Aesthetics and Art Criticism*, 1(1), 46-51.
- Chapman, Hanah, D.A. Kim, Joshua M. Susskind, and Adam Anderson (2009). In Bad Taste: Evidence for the Oral Origins of Moral Disgust. *Science*, 323(5918), 1222-6.
- Clark, Timothy J. (1984). *The Painting of Modern Life*. Princeton University Press.
- Cohen, Alix. (2013). Kant on the Possibility of Ugliness. *British Journal of Aesthetics*, 53(2), 199-209.
- Colson, Philippe, Hervé Richet, Christelle Desnues, Fanny Balique, Valérie Moal, Jean-Jacques Grob, Philippe Berbis, Hervé Lecoq, Jean-Robert Harlé, Yvon Berland, and Didier Raoult (2010). Pepper Mild Mottle Virus. *PLoS ONE*, 5(4), e10041.
- Cornelius, Randolph R., and Averill, James R. (1983). Sex differences in fear of spiders. *Journal of Personality and Social Psychology*, 45, 377-383.
- Cousins, Mark (1994). The Ugly: Part I. *AA Files*, 28, 61-64.
- _____ (1995). The Ugly: Part II. *AA Files*, 29, 3-6.
- Cousin, Victor. (1854/1872). *Lectures on the True, the Beautiful and the Good*. Orlando W. Wight (Trans.). Appleton & Co..
- Cox, Cathy R., Jamie L. Goldenberg, Tom Pyszczynski, and David Weise (2007). Disgust, creatureliness and the accessibility of death-related thoughts. *European Journal of Social Psychology*, 37, 494-507.
- Curtis, Val, Robert Aunger, and Tamer Rabie. (2004). Evidence that disgust evolved to protect from risk of disease. *Proceedings of Royal Society of London B*, 271: S131-133.
- Curtis, Valerie, and Adam Biran. (2001). Dirt, Disgust & Disease. *Perspectives in biology and medicine*, 44(1), 17-31.
- van Damme, Wilfried (1987). *A Comparative Analysis Concerning Beauty and Ugliness in Sub-Saharan Africa*. Africana Gandensia.
- D'Arms, Justin (2005). Two arguments for sentimentalism. *Philosophical Issues*, 15, 1-21.
- D'Arms, Justin & Jacobson, Daniel (2000a). Sentiment and Value. *Ethics*, 110(4), 722-748.
- _____ (2000b). The Moralistic Fallacy. *Philosophy Phenomenological Research*, 61(1), 65-90.
- _____ (2003). The Significance of recalcitrant emotion (or, anti-quasi-judgementalism). *Royal Institute of Philosophy Supplement*, 52, 127-145.
- _____ (2006). Anthropocentric Constraints on Human Value. In R. Shafer-Landau (Ed.), *Oxford Studies in Metaethics, Volume I* (99-126). Clarendon Press.
- Davey, Graham CL. (1992). Characteristics of individuals with fear of spiders. *Anxiety Research*, 4, 299-314.
- _____ (1994). Disgust. In V.S. Ramachandran (Ed.), *Encyclopaedia of human behaviour* (135-143). San Diego Press.
- Davey, Graham CL., Kate Cavanagh, and Alice Lamb (2003). Differential aversive outcome expectancies for high- and low-predation fear-relevant animals. *Journal of Behavior Therapy and Experimental Psychiatry*, 34, 117-128

- Davey, Graham CL., Angus S. McDonald, Uma Hirisave, G.G. Prabhu, Saburo Iwawaki, Ching I. Jim, Harald Merckelbach, Peter J. de Jong, Patrick W. L. Leung, and Bradley C. Reimann (1998). A cross-cultural study of animal fears. *Behaviour Research and Therapy*, 36, 735-750.
- Davies, Stephen (2012). *The Artful Species*. Oxford University Press.
- DeBruine, Lisa M., Benedict C. Jones, Joshua M. Tybur, Debra Lieberman, and Vladas Griskevicius (2010). Women's preferences for masculinity in male faces are predicted by pathogen disgust, but not by moral or sexual disgust. *Evolution and Human Behavior*, 31, 69-74.
- Dewey, John (1934). *Art as Experience*. Minton, Balch & Company.
- Diessner, Rhett, Rebecca C. Solom, Nellie K. Frost, Lucas Parsons, and John Davidson. (2008). Engagement with Beauty: Appreciating Natural, Artistic and Moral Beauty. *Journal of Psychology: Interdisciplinary and Applied*, 142(3), 303-329.
- Dixon, Barnaby J.W., Anthony C. Little, Henry G.W. Dixon, & Robert C. Brooks (2017). Do prevailing environmental factors influence human preferences for facial morphology? *Behavioral Ecology*, 28(5), 1217-1227.
- Doran, Ryan P. (2021). Moral Beauty, Inside and Out. *Australasian Journal of Philosophy*, 99(2), 396-414.
- _____ (in press). Sullyng Sights. *Philosophical Psychology*.
- _____ (n.d. a). Aesthetic Animism.
- _____ (n.d. b). The Thick and the Thin of Moral Beauty.
- Dorsinville, Roger, and Mario Meneghini (1973). The Bassa Mask: A Stranger in the House. *Ethnologische Zeitschrift Zuerich*, 1, 5-53.
- Douglas, Mary (1966). *Purity and Danger: An analysis of the concepts of pollution and taboo*. Routledge and Kegan Paul.
- Eco, Umberto (2007). *On Ugliness*. Rizzoli Libri.
- Fileva, Iskra (2020). You Disgust Me. Or Do You? On the Very Idea of Moral Disgust. *Australasian Journal of Philosophy*, 99, 1: 19-33.
- Fry, Roger (1912/1996). The Grafton Gallery: An Apologia. *The Nation* (9 November, 1912), reprinted in C. Reed (Ed.), *A Roger Fry Reader* (112-116). University of Chicago Press.
- Frynta, Daniel, Šárka Pelěšková, Silvie Rádlová, Markéta Janovcová, and Eva Landová (2019). Human evaluation of amphibian species: a comparison of disgust and beauty. *The Science of Nature*, 106(4), 1-19.
- Gallese, Vittorio, Christian Keysers, and Giacomo Rizzolatti (2004). A unifying view of the basis of social cognition. *Trends in Cognitive Science*, 8, 396-403.
- Garvin, Lucius (1948). The Problem of Ugliness in Art. *Philosophical Review*, 57(4), 404-409.
- Gendler, Tamar S. (2008). Alief and Belief. *The Journal of Philosophy*, 105(10), 634-663.
- Gilbert, Avery N., Alan J. Fridlund, and John Sabini (1987). Hedonic and social determinants of facial displays to odors. *Chemical Senses*, 12(2):355-363.
- Goldenberg, Jamie L., Tom Pyszczynski, Jeff Greenberg, Solomon Sheldon, Benjamin Kluck, and Robin Cornwell (2001). I am *not* an animal: mortality salience, disgust, and the denial of human creatureliness. *Journal Experimental Psychology: General*, 130, 427-435.
- Greenberg, Clement (1945/1988). Review of Exhibitions of Mondrian, Kandinsky and Pollock. *The Nation* (7 April 1945), reprinted in John O'Brien (Ed.), *The Collected Essays and Criticism: Arrogant Purpose, 1945-49*. Chicago University Press.
- Griffin, Angela M., and Langlois, Judith H. (2006). Stereotype Directionality and Attractiveness Stereotyping: Is Beauty Good or is Ugly Bad? *Social Cognition*, 24(3), 187-206.
- Haidt, Jonathan (2000). The Positive Emotion of Elevation. *Prevention & Treatment*, 3(3), 1-5.
- Haidt, Jonathan, Clark McCauley, and Paul Rozin (1994). Individual differences in sensitivity to disgust. *Personality and Individual Differences*, 16, 701-713.
- Hardy, Godfrey H. (1940/1992). *A Mathematician's Apology*. Cambridge University Press.
- Hare, William. (1933). *A Critical History of Modern Aesthetics*. George Allen & Unwin.
- Harris, Lasana T., and Susan T. Fiske (2006). Dehumanizing the lowest of the low. *Psychological Science*, 14(10), 847-853.
- Hastelton, Martie G., and Daniel Nettle (2006). The paranoid optimist: An integrative evolutionary model of cognitive biases. *Personality and Social Psychology Review*, 10, 47-66.
- Haybron, Daniel M. (2007). Do we know how happy we are? *Notas*, 41(3), 394-428.
- Hebl, Michelle R. & Laura M. Mannix (2003). The Weight of Obesity in Evaluating Others: A Mere Proximity Effect. *Personality and Social Psychology Bulletin*, 29(1), 28-38.
- Hegel, Georg W.F. (1835/1975). *Lectures on Fine Art: II*. T.M. Knox (Trans.). Clarendon Press.
- Henderson, G. (2015a). *Ugliness: A Cultural History*. (London: Reaktion Press).
- _____ (2015b). The Ugly Face Club: A Case Study in the Tangled Politics and Aesthetics of Deformity. In Andrei Pop and Mechtild Widrich (Eds.), *Ugliness: The Non-Beautiful in Art and Theory* (17-33). I.B. Tauris.
- Hettinger, Ned (2010). Animal Beauty, Ethics, and Environmental Preservation. *Environmental Ethics*, 32, 115-134.

- Hodson, Gordon, Becky L. Choma, Jacqueline Boisvert, Carolyn Hafer, Cara C. MacInnis, and Kimberly Costello (2013). The role of intergroup disgust in predicting negative outgroup evaluations. *Journal of Experimental Social Psychology*, 49, 195-205.
- Hofmann, Bjørn (2019). Expanding disease and undermining the ethos of medicine. *European Journal of Epidemiology*, 34, 613-619.
- van Hooff, Johanna C., Christel Devue, Paula E. Vieweg, and Jan Theeuwes (2013). Disgust- and not fear-evoking images hold our attention. *Acta Psychologica*, 143(1), 1-6.
- Horton, Robin (1965). *Kalabari Sculpture*. Department of Antiquities (Lagos).
- Hume, David (1739/1978). *A Treatise of Human Nature*. Lewis A. Selby-Bigge and Peter H. Nidditch (Eds.). Oxford University Press, second edition.
- Hutchinson, Mark (2002). *Nausea*. Djanogly Art Gallery.
- Janovcová, Marcéta, Silvie Rádlová, Jakub Polák, Kristýna Sedláčková, Šárka Peléšková, Barbora Žampachova, Daniel Frynta, and Eva Landová (2019). Human attitude towards reptiles: a relationship between fear, disgust and aesthetic preferences. *Animals*, 9(238), 1-17.
- Jarrett, James L. (1957). *The Quest for Beauty*. Prentice-Hall.
- Jefferson, Thomas (1781-2/1984). Notes on the State of Virginia. In Merrill Peterson (Ed.), *Thomas Jefferson: Writings*. Library of America.
- Jones, Benedict C., David R. Feinberg, Christopher D. Watkins, Corey L. Fincher, Anthony C. Little, & Lisa M. DeBruine (2012). Pathogen disgust predicts women's preferences for masculinity in men's voices, faces and bodies. *Behavioral Ecology*, 24(2), 373-379.
- Kelly, Daniel (2011). *Yuck! The Nature and Moral Significance of Disgust*. MIT Press.
- _____ (2018). Cast in a Bad Light or Reflected in a Dark Mirror? Cognitive Science and the Projecting Mind. In, Nina Strohminger and Victor Kumar (Eds.), *The Moral Psychology of Disgust* (171-194). Rowman & Littlefield.
- Klebl, Christoph, Katharine H. Greenaway, Joshua J. Rhee, and Brock Bastian (2020). Ugliness Judgements Alert us to Cues of Pathogen Presence. *Social Psychological and Personality Science*, 12(5), 617-628.
- Kleinknecht, Ronald A., Erica E. Kleinknecht, and Robert M. Thorndike (1997). The Role of Disgust and Fear in Blood and Injection-related Fainting Symptoms: A Structural Equation Model. *Behaviour Research Therapy*, 35(12), 1075-1087.
- Kieran, Matthew (2004). *Revealing Art*. Routledge.
- Kim, Laura R., & Nancy S. Kim (2011). A Proximity Effect in Adults' Contamination Intuitions. *Judgement and Decision Making*, 6(3), 222-229.
- Kollareth, Dolichan, and James A. Russell (2018). Even unpleasant reminders that you are an animal need not disgust you. *Emotion*, 18(2), 304-312.
- Kolnai, Aurel (1998). The Standard Modes of Aversion: Fear, Disgust and Hatred. *Mind*, 107(427), 581-595.
- Kupfer, Tom, and An T.D. Le (2018). Disgusting Clusters: Trypophobia as an Overgeneralised Disease Avoidance Response. *Cognition & Emotion*, 32(4), 729-741.
- Kreibig, Sylvia D. (2010). Autonomic nervous system activity in emotion: a review. *Biological Psychology*, 84(3), 394-421.
- Krendl, Anne C., C. Neil Macrae, William M. Kelley, Jonathan A. Fugelsang, and Todd F. Heatherton (2006). The good, the bad, and the ugly: An fMRI investigation of the functional anatomic correlates of stigma. *Social Neuroscience*, 1(1), 5-15.
- Landis, Shauna K., Martin F. Sherman, Ralph L. Piedmont, Matthew W. Kirkhart, Edward M. Rapp, and Denise H. Bike (2009). The relation between elevation and self-reported prosocial behavior: Incremental validity over the Five-Factor Model of Personality. *Journal of Positive Psychology*, 4, 71-84.
- Landová, Eva, Jana Maresová, Olga Simková, Veronika M. Cikánová, and Daniel Frynta (2012). Human responses to live snake and their photogrpahs: Evaluation of beauty and fear of the king snakes. *Journal of Environmental Psychology*, 32, 69-77.
- Landová, Eva, Petra Poláková, Sylvie Rádlová, Markéta Janovcová, Miroslav Bobek, and Daniel Frynta (2018). Beauty rankings of mammalian species kept in at the Prague Zoo. *The Science of Nature*, 105(69), 1-14.
- Lawal, Babatunde (1974). Some Aspects of Yoruba Aesthetics. *British Journal of Aesthetics*, 14(3), 239-49.
- Leddon, Erin M., Sandra R. Waxman, Doug L. Medin, Megan Bang, and Karen Washinawatok (2012). One animal among many? Children's understanding of the relation between humans and nonhuman animals. In Graham R. Hayes and Michael H. Bryant (Eds.), *Psychology of Culture: Psychology of Emotions, Motivations and Actions* (105-126). Nova Science Publishers.
- Lessing, Gotthold E. (1766/1905). *Laocoon*. Robert Phillimore (Trans.). G. Routledge & Sons.
- Levinson, Jerrold (2014). *Suffering Art Gladly: The Paradox of Negative Emotion in Art*. Palgrave Macmillan UK.
- Lieberman, Debra L., Joshua M. Tybur, and Janet D. Latner (2012). Disgust Sensitivity, Obesity Stigma, and Gender: Contamination Psychology Predicts Weight Bias for Women, Not Men. *Obesity*, 20, 1803-1814.

- Little, Anthony C., Lisa M. DeBruine, & Benedict C. Jones (2011). Exposure to visual cues of pathogen contagion changes preferences for masculinity and symmetry in opposite-sex faces. *Proceedings of the Royal Society B*, 278, 2032-2039.
- Livshits, Gregory, and Eugene Kobylansky. (1991). Fluctuating asymmetry as a possible measure of developmental homeostasis in humans: A review. *Human Biology*, 63:441-466.
- MacDorman, Karl F., Robert D. Green, Chin-Chang Ho, and Clinton T. Koch (2009). Too Real For Comfort? Uncanny responses to computer-generated faces. *Computers in human behaviour*, 25, 695-710.
- Marcus, Gary (2009). *Kludge: The Haphazard Evolution of the Human Mind*. Mariner Books.
- Mather, Frank J. (1935). *Concerning Beauty*. Princeton University Press.
- Matthews, Miriam, and Shana Levin (2012). Testing a dual process model of prejudice: Assessment of group threat perceptions and emotions. *Motivation and Emotion*, 36, 564-574.
- McNaughton, Patrick R. (1979). *Secret Sculptures of Kowo: Art and Power in Bamana (Bambara) Initiation Associations*. Institute for the Study of Human Issues, Working Papers in the Traditional Arts, 4.
- Menninghaus, Winfried, Wagner Valentin, Julian Hanich, Eugen Wassiliwizky, Thomas Jacobsen, and Stefan Koelsch (2017). The Distance Embracing model of the enjoyment of negative emotions in art reception. *Behavioral and Brain Sciences*, 40, 1-15.
- Messenger, John C. (1973). The Carver in Anang Society. In Warren D'Azevedo (Ed.), *The Traditional Artist in African Society* (101-127). Indiana University Press.
- Miller, Susan B. (2004). *Disgust: The Gatekeeper Emotion*. The Analytic Press.
- Miller, Saul L., and Jon K. Maner (2012). Overperceiving Disease Cues: The Basic Cognition of the Behavioural Immune System. *Journal of Personality and Social Psychology*, 102(6), 1198-1213.
- Miller, William I. (1996). *The Anatomy of Disgust*. Harvard University Press.
- Miscevic, Nenad (1998). Aposteriority of Response-Dependence. *Monist*, 81(1), 69-84.
- Møller, A.P., P. Christie, and E. Lux (1999). Parasitism, host immune function, and sexual selection. *Quarterly Review of Biology*, 74, 3-74.
- Møller, Anders P., and John P. Swaddle (1997). *Asymmetry, developmental stability and evolution*. Oxford University Press.
- Moore, George E. (1903/1922). *Principia Ethica*. Cambridge University Press.
- Moore, Ronald (1998). Ugliness. In Michael Kelly (Ed.), *Encyclopedia of Aesthetics* (417-421). Oxford University Press.
- Morales, Andrea C., Eugenia C. Wu, and Gavan J. Fitzsimons (2012). How Disgust Enhances the Effectiveness of Fear Appeals. *Journal of Marketing Research*, 49(3), 383-393.
- Mori, Masahiro (1970/2012). The Uncanny Valley. Karl F. MacDorman and Norri Kageki (Trans.). *IEEE Robotics and Automation Magazine*, June 2012, 98-100.
- Mulkens, Sandra A., Peter J. de Jong, and Harald Merckelbach (1996). Disgust and spider phobia. *Journal of abnormal psychology*, 105(3), 464-8.
- Nabi, Robin L. (2002). The theoretical versus the lay meaning of disgust: Implications for emotion research. *Emotion*, 16(5), 695-703.
- Navarrete, Carlos D., and Fessler, Daniel M.T. (2006). Disease avoidance and ethnocentrism: the effects of disease vulnerability and disgust sensitivity on intergroup attitudes. *Evolution and Human Behavior*, 27, 270-282.
- Nicolson, Marjorie H. (1959/1997). *Mountain Gloom and Mountain Glory: The Development of the Aesthetics of the Infinite*. Washington University Press.
- Nietzsche, Friedrich (1889/1911). *Twilight of the Idols*. Anthony M. Ludovici (Trans.). Foulis.
- Oaten, Megan, Richard J. Stevenson, and Trevor I. Case (2009). Disgust as a disease-avoidance mechanism. *Psychological Bulletin*, 135(2), 303-21.
- _____. (2011). Disease avoidance as a functional basis for stigmatization. *Philosophical Transactions of the Royal Society B*, 366(1583), 3433-3452.
- Öhman, Arne (1986). Face the Beast and Fear the Face. *Psychophysiology*, 23(2), 123-145.
- Olatunji, Bunmi O., Nathan L. Williams, David F. Tolin, Jonathan S. Abramowitz, Craig N. Sawchuk, Jeffrey M. Lohr, and Lisa S. Elwood (2007). The Disgust Scale: Item Analysis, Factor Structure, and Suggestions for Refinement. *Psychological Assessment*, 19(3), 281-297.
- Oosterwijk, Suzanne (2017). Choosing the negative: a behavioural demonstration of morbid curiosity. *PLoS ONE*, 12(7), e0178399.
- Otenberg, Simon (1975). *Masked Rituals of Afikpo*. University of Washington Press.
- Paris, Panos (2017). The Deformity-Related View of Ugliness. *British Journal of Aesthetics*, 57(2), 139-160.
- _____. (2018). The Empirical Case for Moral Beauty. *Australasian Journal of Philosophy*, 96(4): 642-656.
- Park, JH., van Leeuwen, F., & Stephen, ID. (2012). Homeliness is in the disgust sensitivity of the beholder: relatively unattractive faces appear especially unattractive to individuals higher in pathogen disgust. *Evolution and Human Behavior*, 33:569-577.

- Park, Justin H., Mark Schaller, and Christian S. Crandall (2007). Pathogen-avoidance mechanisms and the stigmatisation of obese people. *Evolution and Human Behavior*, 28, 410-414.
- Plato (c. 375/2015). *The Republic*. Benjamin Jowett (Trans.). First Avenue Editions.
- ____ (c. 390/1931). Hippias Major. In E.F. Carrith (Ed.), *Philosophies of Beauty*. Clarendon Press.
- Peng, Ming, Lei Chang, and Renlai Zhou (2013). Physiological and behavioral responses to strangers compared to friends as a source of disgust. *Evolution and Human Behavior*, 34, 94-98.
- Pepper, Stephen C. (1949). *Principles of Art Appreciation*. Harcourt, Brace.
- Pickford, RW. (1969). The Psychology of Ugliness. *British Journal of Aesthetics*, 9(3):258-270.
- Pop, Andrei (2015). Can Beauty and Ugliness Coexist? In Andrei Pop and Mechtild Widrich (Eds.), *Ugliness: The Non-Beautiful in Art and Theory* (165-179). IB Tauris.
- Power, Mick J., & Tim Dagleish (2016). *Cognition and Emotion: From Order to Disorder*. Psychology Press (Third Edition).
- Rabinowicz, Wlodek, and Toni Rønnow-Rasmussen (2004). The strike of the demon: On fitting pro-attitudes and value. *Ethics*, 114(3), 391-423.
- Railton, Peter (1989). Naturalism and Prescriptivity. *Social Philosophy and Policy*, 7(1), 151-174.
- Repacholi, Betty M. (1998). Infants use of attention cues to identify the referent of another person's emotional expression. *Developmental Psychology*, 34, 1017-1025.
- Riggle, Nick (2014). Beauty and Love. In Michael Kelly (Ed.), *The Encyclopaedia of Aesthetics*. Oxford University Press (second edition).
- Rimé, Bernard, Céline Delfosse, and Susanna Corsini (2005). Emotional Fascination: Responses to Viewing Pictures of September 11 attacks. *Cognition and Emotion*, 19(6), 923-932.
- Ritz, Thomas, Miriam Thöns, Saskia Fahrenkrug, and Bernhard Dahme (2005). Airways, respiration, and respiratory sinus arrhythmia during picture viewing. *Psychophysiology*, 42, 568-578.
- Rolston, Holmes III (1983). Values Gone Wild. *Inquiry*, 26(2), 181-207.
- Rosenkranz, Karl (1853/2015). *Aesthetics of Ugliness*. A. Pop and M. Widrich (Trans.). Bloomsbury.
- Royzman, Edward, and Kurzban, Robert (2011). Minding the Metaphor: The Elusive Character of Moral Disgust. *Emotion Review*, 3(3), 269-271.
- Rozin, Paul, and April E. Fallon (1987). A Perspective on Disgust. *Psychological Review*, 94(1), 23-41.
- Rozin, Paul, April E. Fallon, and Robin Mandell (1984). Family Resemblance Attitudes to Food. *Developmental Psychology*, 20(2), 309-314.
- Rozin, Paul, Lily Guillot, Katrina Fincher, Alexander Rozin, and Eli Tsukayama (2013). Glad to be sad, and other examples of benign masochism. *Judgement and Decision Making*, 8(4), 439-447.
- Rozin, Paul, Jonathan Haidt, and Clark McCauley (2008). Disgust. In Michael Lewis, Jeanette M. Haviland-Jones, and Lisa Feldman-Barrett (Eds.), *Handbook of Emotions* (757-776). Guildford Press.
- Rozin, Paul, Jonathan Haidt, Clark McCauley, Lance Dunlop, and Michelle Ashmore (1999). Individual Differences in Disgust Sensitivity: Comparisons and Evaluations of Paper-and-Pencil versus Behavioral Measures. *Journal of Research in Personality*, 33(3), 330-351.
- Rozin, Paul, Laura Lowery, and Rhonda Ebert (2004). Varieties of disgust faces and the structure of disgust. *Journal of Personality and Social Psychology*, 66, 870-881.
- Rozin, Paul, Linda Millman, and Carol Nemeroff (1986). Operation of the laws of sympathetic magic in disgust and other domains. *Journal of Personality Social Psychology*, 50(4), 703-712.
- Rozin, Paul, and Carol Nemeroff (1990). The Laws of Sympathetic Magic: A Psychological Analysis of Similarity and Contagion. In James W. Stigler, Richard A. Shweder and Gilbert Herdt, *Cultural Psychology: Essays on Comparative Development* (205-232). Cambridge University Press.
- Rublack, Ulinka (1996). Pregnancy, Childbirth and the Female Body in Early Modern Germany. *Past & Present*, 150:84-110.
- Ryan, Stephen, Megan Oaten, Richard J. Stevenson, and Trevor I. Case (2012). Facial disfigurement is treated like an infectious disease. *Evolution and Human Behavior*, 33, 639-646.
- Saito, Yuriko (1998). The Aesthetics of Unscenic Nature. *Journal of Aesthetics & Art Criticism*, 56(2), 101-11.
- Sanfey, Alan G., James K. Rilling, Jessica A. Aronson, Leigh E. Nystrom, and Jonathan D. Cohen (2003). The Neural Basis of Economic Decision-Making in the Ultimatum Game. *Science*, 300(5626), 1755-1758.
- Santayana, George (1896/1955). *The Sense of Beauty*. Dover Publications Inc..
- Schweiger-Gallo, Inge, José-Miguel Fernández-Dols, Peter M. Gollwitzer, and Andreas Keil (2017). Grima: A Distinct Emotion Concept? *Frontiers in Psychology*, 8(131), 1-14.
- Schweik, Susan M. (2009). *The Ugly Laws: Disability in Public*. New York University Press.
- Shier, David (1998). Why Kant Finds Nothing Ugly. *British Journal of Aesthetics*, 4(1), 412-418.
- Shusterman, Richard (2000). *Pragmatist Aesthetics: Living Beauty, Rethinking Art*. Rowman & Littlefield Publishers, Ltd. (second edition).

- _____. (2012). *Thinking through the Body: Essays in Somaesthetics*. Cambridge University Press.
- Sibley, Frank (2001). Some notes on ugliness. In John Benson, Betty Redfern and Jeremy R. Cox, *Approach to Aesthetics* (192-206). Clarendon Press.
- Solomon, Robert C. (2004). Real Horror. In Robert C. Solomon, *In Defense of Sentimentality* (109-130). Oxford University Press.
- Stark, Rudolf, Bertram Walter, Anne Schienle, and Dieter Vaitl (2005). Psychophysical correlates of disgust and disgust sensitivity. *Journal of Psychophysiology*, 19, 50-60.
- Stevenson, Richard J., Megan J. Oaten, Trevor I. Case, Betty M. Repacholi, and Paul Wagland (2010). Children's Response To adult Disgust Elicitors: Development and Acquisition. *Developmental Psychology*, 46(1), 165-177.
- Stevenson, Richard J., and Repacholi, Betty M. (2005). Does the source of an interpersonal odour affect disgust? A disease risk model and its alternatives. *European Journal of Social Psychology*, 35(3), 375-401.
- Stolnitz, Jerome (1950). On Ugliness in Art. *Philosophy & Phenomenological Research*, 11(1), 1-24.
- Tapp, Caley, Megan Oaten, and Richard J. Stevenson (2020). Is obesity treated like a contagious disease? *Journal of Applied Social Psychology*, 50: 205-212.
- Tapp, Caley, and Stefano Occhipinti (2016). The essence of crime: contagious transmission from those who have committed moral transgressions. *British Journal of Social Psychology*, 55, 756-772.
- Taylor, Pamela M., and Yukiko Uchida (2019). Awe or Horror: Differentiating two emotional responses to schema incongruence. *Cognition and Emotion*, 33(8), 1548-1561.
- The Telegraph, UK. "Ugly Plants: corpse flower voted the world's ugliest plant". (10 July 2009, accessed 15/01/2015).
- Thomson, Garrett (1992). Kant's Problem with Ugliness. *Journal of Aesthetics and Art Criticism*, 50(2), 107-115.
- Thompson, Robert Farris (1971). *Black Gods and Kings: Yoruba Art at UCLA*. University of California Press.
- Thornhill, Randy, and Steven W. Gangestad (1993). Human Facial Beauty. *Human Nature*, 4, 237-269.
- _____. (2006). Facial sexual dimorphism, developmental stability, and susceptibility to disease in men and women. *Evolution and Human Behavior*, 27, 131-144.
- Thornhill, Randy, and Anders P. Møller (1997). Developmental stability, disease and medicine. *Biological reviews*, 72, 497-548.
- Tracy, Jessica L., Conor M. Steckler, and Gordon Heltzel (2019). The Physiological Basis of Psychological Disgust and Moral Judgements. *Journal of Personality and Social Psychology*, 116(1), 15-32.
- Trumble, Angus (2004). *A Brief History of the Smile*. Basic Books.
- Turner, Terence S. (1980). The Social Skin. In Jeremy Churfas and Roger Lewin (Eds.), *Not Work Alone* (112-140). Temple Smith.
- Tybur, Joshua M., and Reinout E. de Vries (2013). Disgust sensitivity and the HEXACO model of personality. *Personality and Individual Differences*, 55(6), 660-665.
- Tybur, Joshua M., and Steven W. Gangestad (2011). Mate preferences and infectious disease: theoretical considerations and evidence in humans. *Philosophical Transactions of the Royal Society B*, 366, 3375-3388.
- Tybur, Joshua M., Debra Lieberman, and Vladas Griskevicius (2009). Microbes, mating, morality: individual differences in three functional domains of disgust. *Journal of Personality and Social Psychology*, 97, 103-122.
- Vernon, Laura L., and Howard Berenbaum (2002). Disgust and fear in response to spiders. *Cognition and Emotion*, 16(6), 809-830.
- Vogel, Susan (1977). *Baule Art as the Expression of a Worldview*. University Microfilms
- _____. (1986). *African Aesthetics*. Center for African Art.
- Watkins, Christopher D., Lisa M. DeBruine, Anthony C. Little, David R. Feinberg, and Benedict C. Jones (2012). Priming concerns about pathogen threat versus resource scarcity: dissociable effects on women's perceptions of men's attractiveness and dominance. *Behavioral Ecology and Sociobiology*, 66, 1549-1556.
- Watson, David, and Kasey Stanton (2017). Emotion Blends and Mixed Emotions in the Hierarchical Structure of Affect. *Emotion Review*, 9(2), 99-104.
- Webb, Katie, and Graham C.L. Davey (1993). Disgust sensitivity and fear of animals: effect of exposure to violent or revulsive material. *Anxiety, Coping and Stress*, 5(4): 329-335.
- Wenzel, Christian (1999). Kant finds nothing ugly? *British Journal of Aesthetics*, 39(4), 416-422.
- Wicker, Bruno, Christian Keysers, Jane Plailly, Jean Pierre Royet, Vittorio Gallese, and Giacomo Rizzolatti (2003). Both us disgusted in *My insula*. *Neuron*, 40(3), 655-664.
- Wiggins, David. (1987). A Sensible Subjectivism? In David Wiggins, *Needs, Values, Truth*. Blackwell.
- Winkielman, Piotr, Kent C. Berridge, and Shlomi Sher (2011). Emotion, Consciousness and Social Behavior. In Jean Decety and John T. Cacioppo (Eds.), *The Handbook of Social Neuroscience* (195-211). Oxford University Press.
- Wolfe, Nathan D., Claire Panosian Dunavan, and Jared Diamond (2007). Origins of major human infectious diseases. *Nature*, 447: 279-283.

- Woolhouse, Mark E.J., and Sonya Gowtage-Sequeria (2005). Host range and emerging and reemerging pathogens. *Emergence Infectious Diseases*, 11: 1842-1847.
- Workman, Clifford I., Stacey Humphries, Franziska Hartung, Geoffrey Aguirre, Joseph W. Kable, and Anjan Chatterjee. (2021). Morality is in the eye of the beholder: the neurocognitive basis of the “anomalous is bad” stereotype. *Annals of the New York Academy of Sciences*, 1494, 1: 3-17.
- Zickfeld, Janis H., Thomas W. Schubert, Beate Seibt, and Alan Fiske (2019). Moving Through the Literature: What is the Emotion Often Denoted Being Moved? *Emotion Review*, 11(2):123-139.
- Zsok, Florian, Diana S. Fleischman, Charmaine Borg, and Edward Morrison (2017). Disgust Trumps Lust: Women’s Disgust and Attraction Towards Men is Unaffected by Sexual Arousal. *Evolutionary Psychological Science*, 3: 353-363.