Contemporary (analytic) aesthetics has for the most part neglected ‘ugliness’. Of the available literature on ‘ugliness’, moreover, few pieces aim at clarifying the concept of ugliness, a considerable share of research concentrating on exegeses of Kant’s views about it instead. Perhaps this is because ‘ugliness’ is a peripheral concept in aesthetics, or of comparable insignificance. Hardly—remarks about (and criticisms of) contemporary art to the effect that it has embraced ugliness, debates concerning whether ugliness can


sometimes be a positive aesthetic value\textsuperscript{3} or even transformed into a kind of beauty,\textsuperscript{4} whether nature can or ever is ugly,\textsuperscript{5} whether ugliness is connected to other kinds of value such as moral value,\textsuperscript{6} suggest otherwise. Neglect of ‘ugliness’ is striking given that even Sibley, upon denying that aesthetic concepts are ‘condition-governed’, spoke of ‘ugliness’ as possibly an exception to this rule.\textsuperscript{7} For if ‘ugliness’ is analyzable at least partly in terms of objective conditions, it may shed considerable light on much that is of general interest to aesthetics, particularly if, as is plausible, it is understood as the contrary of ‘beauty’, such that similar logical considerations apply to both concepts.

Here, I concentrate my discussion on what I call the ‘deformity-related’\textsuperscript{8} conception of ugliness. Ultimately, I argue that deformity, understood in a certain way, and displeasure, jointly suffice for ugliness. In the first section, I motivate and defend my proposal. I begin by locating the ‘deformity-related’ conception in aesthetic tradition, offering examples in support, and rejecting related alternative suggestions. I proceed to


\textsuperscript{6} See, for example, Berys Gaut, \textit{Art, Emotion and Ethics} (Oxford: OUP, 2007), esp. 114-132.


\textsuperscript{8} The phrase is from Frank Sibley, ‘Some Notes On Ugliness’, in Frank Sibley, \textit{Approach to Aesthetics}, ed. John Benson, Betty Redfern, and Jeremy Roxbee Cox (Oxford: OUP, 2001), 191-207, although Sibley uses it to refer to the claim that deformity is necessary for ugliness.
suggest that my proposal captures much of what we ordinarily think of as ugly. In the second section, I argue that the account boasts considerable theoretical merits, in comprising an objective criterion for ugliness, offering unity and comprehensiveness, and being informative and explanatorily potent. In the third section I discuss four objections, by way of demonstrating that the proposal withstands reflective scrutiny.

I.

Some usages of ‘ugliness’ clearly have no bearing on aesthetics. In talk of ugly accidents, wounds, or truths, ‘ugliness’ is shorthand for ‘severe’, ‘fatal’, ‘deep’, and ‘inconvenient’ or ‘undesirable’, respectively. But most uses of ‘ugly’ are aesthetic and quite uncontroversial. In its aesthetic usage, moreover, ‘ugliness’, like ‘beauty’, admits of two further senses, namely a broad and a somewhat narrower sense. In its broad sense ‘ugliness’ comprises all negative aesthetic qualities, including the likes of the boring, garish, trite, kitsch, silly. However, in its narrower sense, it refers to a certain aesthetic property and its subspecies. It is this last sense that interests me here.

Although contemporary aestheticians rarely discuss ugliness, we find a long tradition that conceives of it as deformity. This is reflected in the fact that ‘deformity’ was once the standard term in English to refer to ‘ugliness’, and permeated the writings of aestheticians in the eighteenth-century. To illustrate, ‘ugly’ appears only once in the three volumes of Shaftesbury’s *Characteristicks of Men, Manners, Opinions, Times*, and once in Hutcheson’s *Inquiry*, where it is used as a synonym of the frequently used ‘deform’d’. Similarly, in his *Treatise* and *Enquiries*, Hume routinely contrasts ‘beauty’ to ‘deformity’, rarely speaking of ‘ugliness’. While rather quaint, such usage is not altogether alien to

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modern speakers. After all, current linguistic practice also supports a strong link between ugliness and deformity. At least in English, the rich vocabulary of terms which can be used to describe ugly objects includes many pertaining to deformity, such as the polluted, diseased, spoiled, derelict, disfigured, malformed, contorted, distorted, crooked, misshaped, marred, mutilated, spoiled, blemished, incoherent, disunified, disharmonious.

It is tempting to take such usage at face value and proceed to define ugliness as deformity:

\[
\text{Ugliness-as-Deformity (UD) = for any object, } O, \text{ is ugly if, and only if, } O \text{ is deformed}
\]

One problem with UD is that the notion of ‘deformity’ is vague. I beg the reader’s indulgence, however, while I set this issue aside for now—I shall return to it shortly—for there are far more serious difficulties for UD. Certain sounds, like fingernails scraping a blackboard or forks scratching steel utensils, and things like slime, faeces, vomit, and so on, are plausibly ugly, yet cannot literally be described as deformed. In fact, if as is plausible deformity depends on some standard or norm, then things such as the aforementioned do not even seem to be candidates for deformity, for there are hardly any standards or norms pertinent to slime or blackboard-scraping sounds. So it looks like UD is too strong.

10 Ugliness’ connection to deformity is not limited to Anglophone thought. See, for example, Diderot’s entry on ‘ugliness’ in his Encyclopédie, in Andrei Pop and Mechtild Widrich (eds), Ugliness: The Non-Beautiful in Art and Theory (London: I.B. Tauris, 2014) 216-217.

Upon rejecting UD, perhaps we could follow Sibley and propose that deformity is only a necessary condition for ugliness. But if the sorts of objects just surveyed are not even plausible candidates for deformity, then the foregoing considerations equally bear against this view. Sibley does discuss such counterexamples, suggesting that when we find things that cannot be deformed ugly, we are actually seeing them in terms of other things that can be deformed. But establishing that deformity is necessary for ugliness requires ruling out cases where we judge something ugly without even knowing what it is; but this labour appears Herculean.

Yet we should not yet give up on the intuition linking ugliness and deformity. After all, many of the things that we find ugly are deformed or encompass manifest deformities. At least *prima facie*, rheumy eyes, missing limbs, dereliction, and the like, render people, animals, and buildings ugly. To preserve the core intuition in UD, I propose to examine an alternative suggestion. Claiming that deformity suffices for ugliness preserves the link between ugliness and deformity, whilst eluding counterexamples such as those threatening UD and undermining a necessity claim:

Deformity-Related Ugliness (DRU) = \textit{for any object, }O, \textit{if }O \textit{ is deformed, then }O \textit{ is ugly}

I now return—as promised—to the question of what is meant by ‘deformity’, for much of the plausibility of this proposal depends on how we understand this rather protean notion. Sibley himself takes two shots at capturing ‘deformity’. Initially he suggests that the notion

\footnotesize

12 Sibley, ‘Some Notes on Ugliness’.

13 ibid.

of ‘deformity’, as it relates to ugliness, is best captured by the umbrella term ‘denatured’ and comprises

such abnormalities and distortions as are covered by a whole range of notions … like 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.\textsuperscript{15}

Later on, Sibley opts for ‘denormalized’ as the catch-all term instead, whereby is indicated,

some departure by way of exaggeration, extravagance, or discolouring, being too this or too that, swollen, bulging, twisted, red eyes, knock knees, from a norm or notion of \( x \)s by something out of place, inappropriate in an \( x \).\textsuperscript{16}

To clarify things, it would help to distinguish between different senses of ‘deformity’ that seem to be run together in Sibley’s lists. ‘Deformity’, as captured by the adjectives above, can be understood either as (a) ‘abnormality’ or pronounced difference (swollen, emaciated, dwarfed, bulging, etc.); (b) ‘malfunction’ (one sense of defective), or (c) ‘defect in form’ (distorted, disfigured, etc.). While these notions are interrelated, no entailment relations hold between them. A defective engine can function properly (circumstances may never arise where the defect is manifested) and it can be statistically normal for these engines to be defective (their manufacture is generally poor). A crucial distinction between these notions is between different standards or norms from which the ‘deformed’ is a

\textsuperscript{15} Sibley, ‘Some Notes on Ugliness’, 197.

\textsuperscript{16} ibid., 203.
departure, which can be either *statistical* or *teleological* (understood here as a catch-all term for there being a function or end properly attributable to an object, relative to which an object can be defective; many uses of (a) and (c) seem paradigmatic of these departures, respectively).

Now, I think that, if DRU is to be plausible, ‘deformity’ will have to be understood in the sense pertinent to the notion of defect, partly because the alternatives fail. The statistical conception looks inadequate once we observe how apparently slight departures from the relevant norms can make a world of difference, turning what seemed beautiful ugly, as can a rheumy eye, or a missing tooth or two, neither of which look particularly statistically significant departures. Conversely, great departures from the norm need not result in ugliness. Exceptional tallness or musculality do not compromise one’s beauty (and could even enhance it), statistically significant though they may be. Dwarfism is statistically highly off, but not all dwarves are ugly. Deformity understood as malfunction will not do for DRU either; simply because one has just died, say, it does not seem plausible that he is ugly; a malfunctioning heart is not necessarily thereby an ugly organ, nor is a clock that malfunctions just because someone threw water on it, an ugly clock. So, it looks like we are left with ‘deformity’ as ‘defect’ in form. Although this too can be understood in different ways, here is how I propose to understand it:

\[
\text{Deformity} = \text{if an object's, O's, form frustrates, inhibits, or hinders O from realising its end(s), then O is deformed}
\]

It is adequate for our purposes to think of ‘form’ as the ensemble and interrelations between an object’s parts, although I think that other accounts of form will also do.\(^{17}\) More

\(^{17}\) For a discussion of different accounts of ‘form’ see Noël Carroll, *The Philosophy of Art* (London: Routledge, 1999), 137-152.
important is the notion of ‘end(s)’, which I conceive rather narrowly here, as referring to an 
object’s ‘proper end(s)’, i.e., those which can be understood as properly attributable to, or 
belonging to, the object, often by virtue of the kind of object it is, as opposed to being 
incidental or arbitrarily attributed to it. Often these will often be functions, although ‘ends’ 
are not limited to strictly-speaking functional items. For instance, proper ends can be 
identified with (or depend on) intentions or purposes of objects’ designers or makers. So 
what I have in mind here is ‘ends’ such that a given object can ‘embody’ them, as it were, 
as opposed to any ends that an object can realise. The intuitive contrast is reflected in the 
linguistic distinction between an object’s ‘having function F’ and its ‘functioning as F’. For 
example, suppose a bookcase has the function of storing books, but can also function as a 
display cabinet, or decorative object. Deformity says that it will be deformed insofar as the 
arrangement of its parts, etc., hinder it from storing books, rather than when it falls short of 
functioning in other ways.

Deformity helps to explain why different senses of ‘deformity’ are often run together. 
A sufficiently extreme departure from statistical norms will, more often than not (provided 
the object has certain functions or ends), lead to an object’s satisfying Deformity (though 
not necessarily because of this departure). For instance, there are many shapes that an 
aeroplane or ship cannot have (under the laws of physics in the actual world) and

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18 While identifying an object’s proper end(s) is difficult, I assume it is generally possible. For 
simplicity, I ignore here complexities arising from some objects’ having several proper functions.
19 Here I cannot discuss how these can be identified, but an excellent account is Michael 
Baxandall, Patterns of Intention (Yale: Yale University Press, 1987).
21 The present conception of deformity and corresponding species of ugliness is limited in its 
applicability to objects which can be understood to have functions or ends. Nonetheless, since 
most (if not all) living organisms and artefacts plausibly fall under this category, this is enough for 
the account to be interesting and informative.
departure of shape in those directions will eventually make the object satisfy the condition above. Similarly, an object that satisfies the condition above is more likely to malfunction than one that does not satisfy it. But not every functional object that is malfunctioning is one which satisfies Deformity; external forces can also interfere with an object’s functionality.

Deformity’s suitability for DRU can be seen from the fact that it is compatible with the aforementioned near-platitudinous observation that neither small nor great divergences from a (statistical) norm, even if they are in some sense deformities, seem ugly-making in a principled way. Slight non-aesthetic differences can make great aesthetic differences, and great non-aesthetic differences can sometimes have little or no aesthetic effect—for worse no less than better. Moreover, features such as scars, pockmarks, warts, for instance, are not necessarily ugly, nor make a person ugly. But Deformity, together with DRU, predicts, quite plausibly, that if these are multiple, prominent, or in areas important enough to detract from performances of ordinary functions, there is little room for doubt as to whether or not they will be ugly-making.

An example should make Deformity’s connection to ugliness, as per DRU, more intuitively plausible. Obesity is hardly an attractive feature. But it is distinguished from what is called ‘morbid obesity’. Now, whereas whether an obese human being will be physically ugly or not is quite unpredictable, it is quite plausible that morbid obesity is at least prima facie an ugly-making property. Such ugliness is explored and vividly presented in works such as John Isaacs’ ‘fat man’ sculpture series, where exaggerated obese figures are presented and often placed in unsettling poses and states. Morbidly obese, though not always merely obese, people, are normally ugly. The relevant difference is captured by Deformity: morbid obesity consists in body mass inhibitive of an individual’s capacities to perform basic human (bodily) functions, including walking, breathing, etc. Hence, with
Deformity, DRU neatly explains why morbidly obese humans will be ugly, whereas this is not always true of merely obese people.

No doubt, it will be objected that the foregoing remarks evince cultural bias. For there are, and certainly have been, societies which find obesity unfailingly attractive, evidence for which are the well-known Palaeolithic Venus figurines.

Should we simply deny that the people who did not find such Venuses ugly are competent judges? Maybe, although that would be *ad hoc*. A little evolutionary hindsight, however, readily suggests a better answer. In the Palaeolithic case, such Venuses were probably experienced as models of well-formedness. Why? Because in times when food was scarce and a luxury, being obese was clearly a sign not only of a luxurious lifestyle, but possibly also of longevity, fertility, and so on. I imagine that similar beliefs are entertained in other societies were obesity is found attractive. By contrast, most of us reading a paper like this one probably live in relatively affluent societies, where obesity signals a host of undesirable qualities; but we are also vividly aware that obesity is severely compromising, causing health problems, and so on. It is therefore unsurprising that we view such a condition as a deformity.\textsuperscript{22}

The lesson to draw from the previous paragraph is that what people deem to be ugly is not just what is deformed. Rather, for something to be judged ugly in virtue of being deformed, it must also be experienced as deformed. To accommodate this observation, we should amend DRU as follows:

\[
\text{DRU}^* = \text{For any object, } O, \text{ if } O \text{ is}
\]

(i) deformed and

(ii) is experienced (in perception or contemplation) as (i)

\textsuperscript{22} The discussion above is informed by that in Stephen Davies, *The Artful Species* (Oxford: OUP, 2012), 105-108.
then $O$ is ugly.

The importance of (ii) will become even clearer with another example. Chinese foot binding was presumably perceived to result in more elegant or attractive feet, not simply elegant things. We may find the results of that practice very ugly indeed, but those who partook in it (at least on the observer’s side) presumably did not. The practice evidently culminated in abnormally shaped, hardly usable, feet. While walking was possible, it had to be performed in a highly circumscribed fashion. Yet, it would be odd to suggest that those who found bound feet attractive experienced them as deformed. It is far more likely that, although the feet were in fact deformed in the sense of *Deformity*, they were not perceived as deformed. Indeed, this aptly explains the change in appreciative attitudes towards bound feet: once they came to be correctly experienced as deformed, they were no longer found elegant or whatever, but ugly instead.

But now consider Meret Oppenheim’s *Object*, which is a tea set covered in fur. This is clearly a deformed object, and is plausibly meant to be experienced as deformed. Yet *Object* is by no means obviously ugly. In fact, one might think that it is rather elegant and pretty.

Similarly, grossly deforming an everyday object like a coat-hanger or a safety pin will not necessarily result in an ugly object. It may well result in something more beautiful.

Nor is it uncommon to find certain withered, dying, or diseased trees rather picturesque, or even beautiful. Insofar as these objects count as deformed even by our high-pitched criteria, DRU* seems to face numerous counterexamples. So DRU* cannot be the whole story either.

It is tempting to respond that in such cases what happens is that the tea cup and spoon, coat-hangers, safety pins, trees, and so on, in being deformed, will in fact become uglier *qua* coat-hangers, safety pins, trees, etc., even if they thereby become prettier.
objects generally. But this is far from clear, since the point of these examples is that we may not in the slightest be moved to call such objects ugly. It would be odd to insist that seeing these things as deformed objects of their kind will actually prompt us to call them ugly, for it would be perfectly intelligible to insist that we still do not judge them to be ugly.

This should not be surprising. These counterexamples simply make palpable the fact that we will be hard-put to capture ugliness without reference to subjects’ responses. This seems true not only of Meret Oppenheim’s work and the other examples of objects which can please us, deformed though they may be; but also of the examples of obesity and foot binding considered earlier. It is not simply that morbidly obese people and bound feet are not perceived as deformed in certain cultures where they are not found ugly; they do not displease perceivers either.

Intuitively, of course, ugliness is bound up with displeasure, so that, if not a platitude, this should be an eminently plausible suggestion. We hardly call anything ugly unless we are to some degree, however slight, displeased by the object. Like the connection between ugliness and deformity, the connection between ugliness and displeasure is crystallized in language. Synonyms for ‘ugliness’ include the repellent, horrible, disgusting, disagreeable, grotesque, abominable, repulsive, odious, foul, obscene, repugnant, frightening, abject, horrifying, frightful, nightmarish, revolting, sickening. We should therefore modify our proposal to capture this observation. In place of the suggestion that experiencing an object’s deformity suffices for ugliness, I propose the following:

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24 These adjectives are found in Umberto Eco, On Ugliness, trans. Alastair McEwen (New York: Rizzoli, 2011), 16.
DRU** =  For any object, $O$, if $O$ is
(i) deformed and
(ii) displeases (good judges, under normal circumstances) because it is
experienced (in perception or contemplation) as (i)
then $O$ is ugly.\textsuperscript{25}

DRU** essentially states that whatever is deformed, and thereby displeases suitable subjects in perception or contemplation, is ugly. DRU** can capture and explain cases that point to a connection between ugliness and deformity; but it also eschews counterexamples such as those discussed above. For it can be countered by pointing neither to deformed objects that are not ugly, such as the coat-hanger we encountered earlier, nor objects that are ugly but not deformed, such as slime, vomit, and so on.

DRU** captures much of what we ordinarily deem ugly. For instance, a Google-image search of ‘ugly’ produces torrents of photographs and representations of highly disfigured humans—so much so that little question remains as to whether they conform to my conception of deformity. Lips too far apart to withhold liquids, limbs misshapen in ways that would prevent anyone from moving around, eyes and mouths too small or too large to perform ordinary functions like emotional expression, grossly disfigured faces and bodies,

\textsuperscript{25} The parenthetical conditions cannot be defended here, though I take it that they are reasonable. Since ugliness is a response-dependent property, certain requirements must be met if subjects’ responses are to be criterial of whether an object that is found ugly, is ugly. The second parenthesis emphasises the directness of the experience (though without limiting it to perceptible objects). Finally, the connection captured by ‘because’ is intended to suggest that the affective response is non-inferential, indicating that displeasure is grounded in or directed at the experience of something as deformed.
and so on. Such things, moreover, hardly fail to arouse our displeasure, in the form of horror, repulsion, revolt—we ordinarily recoil from such images.

Furthermore, in Eco’s anthology *On Ugliness* the themes of death, putrefaction, tortured, mutilated bodies, skeletons, cadavers, etc., predominate. Such is the subject matter of works like Peter Brueghel the Elder’s *Triumph of Death* (1652), *The Deceased Lovers Death and Lust* by an upper-Rhine master (16th C.), and many others’. Similarly, images of disease are particularly striking examples of ugliness, especially where its manifestations involve incapacitating physical disfigurations, such as elephantiasis, abnormal hair-growth, neurofibromatosis, etc. Again, these objects seem to conform to *Deformity* and to displease us in experience (even if they are sometimes rendered beautifully).

Likewise, Jake and Dinos Chapman’s *oeuvre*—which for the most part consists of hyper-realistic sculptures and paintings representing deformed human beings, children included, with features such as snouts, genitalia, anuses, in place of noses, mouths, ears; rotting, mutilated, or contorted faces and bodies, and so on—lends additional support to the connection between ugliness and deformity. For the Chapman brothers’ works undoubtedly depict some truly ugly stuff; in each case, moreover, what is depicted is human deformity, pure and simple; nor is there room for doubt that, at least in terms of their appearances, the subjects in these works are displeasing under any ordinary sense of the term.

Finally, to avoid the charge that I rely too heavily on my own intuitions, here are two philosophers on two artworks which represent objects that presumably meet DRU** and seem ugly. First, commenting on Patricia Piccinini’s *The Young Family* (2002), which portrays an uncannily anthropomorphic old female dog breastfeeding her puppies, Jennifer MacMahon attributes its ugliness to its deformity, suggesting that the ‘old dog’s face, if it had been seen attached to a dog’s body and in its normal context, might have evoked
tenderness or at worst indifference. However, in this context, as a mutant human being, it evokes quite a different response’ of ‘painful curiosity’ and ‘anxiety’.

Second, Matthew Kieran, reflecting on Bacon’s Three Studies for Figures at the Base of a Crucifixion (1944) elaborates as follows:

The viewer is presented with three separate canvases, reminiscent of a triptych, each depicting a strangely anthropomorphic animal-like form. The figure on the left is crouching on a table, huddling itself in a bird-like manner, its vaguely human face a quarter on and turned away. The central figure is side on, the elongated neck stretching from the bulbous, ostrich-like body, bringing its face in full confrontation with the viewer. The threatening, repulsive, mouth of lips and teeth is somewhat agape, and where there should be eyes the face is bandaged. The mouth emerges directly from the neck rather than belonging to a distinct face. The third canvas represents a sharpened, cow-like body, its elongated neck bringing a viciously howling mouth into three quarter view. The neck opens up into rows of teeth, an ear placed behind the lower jaw juts out, the mouth stretches open in a scream, extended in a manner impossible for any human skull. These … figures are visceral in their impact, jolting one into sensations of fright, horror, isolation, and angst. Their force derives from the fusion of bestial forms with anthropomorphising faces. … the heads, though recognisably akin to human faces, are distinctly anything than human. … here are creatures, ugly, deformed …

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The deformity-related conception, then, captures several reasonably uncontroversial and clear cases of ugliness that are both intuitive and meet with philosophical consensus. Hence, I think that DRU** is an attractive, plausible proposal.

II.

Aside from capturing numerous instances of ugliness, thereby being quite comprehensive, DRU** offers a partly objective conception of ugliness since it claims that deformity is partly sufficient for ugliness, and deformity is a truth-apt criterion. DRU**, moreover, does so without sacrificing the plausible view whereby ugliness is response-dependent, since it also requires that an object displease competent judges, such that an object’s ugliness or lack thereof cannot be decided on objective grounds alone.

Thanks to the conception of deformity built into DRU**, the account captures and explains one sense in which a whole host of entities and artefacts can be ugly, albeit they hardly share any observable features. Since anything that has form and so can be deformed, assuming it can also displease, can be ugly, DRU** captures a single sense in which objects ranging from abstract sensory artefacts like musical compositions and their performances, to sculptures, animals, organic nature, and mathematical theorems, can be ugly.

Ugly mathematics, in fact, also throws into relief the informativeness and explanatory force of DRU**. Talk of mathematical ugliness looks like a particularly difficult case to capture, not only because it is rarely discussed, but also because it is unclear what it consists in, over and above an expression of displeasure or dislike. Yet DRU** aptly captures ugliness in mathematics such that it neither forms an obscure class of its own, nor consists in mere dislike, in which case its genuineness or literalness could be questioned.
Consider Appel and Haken’s proof of the four-colour theorem, frequently cited as paradigmatic of ugly mathematics. The theorem claims that the minimum number of colours required to adequately distinguish between regions on every map on a plane or sphere is four. The proof involves a computer programmed to run through all possible combinations (around two thousand) thereby establishing the theorem. On the assumption that mathematicians’ calling this proof ugly implies their displeasure in it, my claim is that common explanations on offer for their aversion to the proof are reducible to the sense of deformity in DRU**. These are as follows:

(a) the proof cannot be verified \textit{a priori} because it involves steps that are justified empirically; this is at odds with the nature of mathematical proofs\textsuperscript{28}

(b) the proof cannot be (humanly) verified because it would involve impracticably many steps; this is at odds with the nature of mathematical proofs\textsuperscript{29}

(c) the proof makes use of a computer, which could be faulty, so that its truth cannot be guaranteed; this is at odds with the nature of mathematical proofs\textsuperscript{30}


\textsuperscript{30} See ibid.; see also Thomas Tymoczko, ‘The Four-Color Problem and Its Philosophical Significance’, \textit{The Journal of Philosophy} 76 (1979) 57-83.
Both explanations\textsuperscript{31} involve a claim to the effect that the proof’s form, namely the computer’s running through the relevant cases, inhibits or fails to realize one or another of the ends of mathematical proofs. Whether by not proceeding \textit{a priori}, or not being practicably verifiable, it either violates an end of mathematical proofs, or, what I take to be equivalent, a norm which is constitutive of mathematical proofs as construed by practitioners and so taken as an end in practice (non-violation of such norms or rules is an end relative to mathematical practice, inasmuch as they are criterial of a proof’s success in the first place). In other words, all three of the most commonly cited explanations for why mathematicians are displeased by Appel and Haken’s proof seem to be explained by their experience of it as deformed. Hence, DRU** captures (at least some) mathematical ugliness.

Another domain where the explanatory force of DRU** shows forth concerns the intuitive connection between ugliness and evil. Whether we reflect on our ordinary experience of ugliness, or look for frequently cited, widely accepted, or paradigmatic examples of ugliness, we shall find many of them featuring not so much observable deformities, but images, literary descriptions, and other kinds of representations or expressions of evil; in other words, manifestations of moral vice.\textsuperscript{32}

I take the fact that we often find and classify such qualities and subject matter as ugly to indicate that the phenomenology involved in experiences thereof is recognisable as saliently like that involved in our experience of other ugly objects. But one may resist the

\textsuperscript{31} Ulianov Montaño, \textit{Explaining Beauty in Mathematics} (Cham: Springer, 2014), 37, rejects these explanations. While I cannot examine his arguments here, suffice it to say that (a) through (c) remain orthodoxy amongst mathematicians.

connection between evil and ugliness, as a conflation between different spheres of judgement. Yet DRU may be able to explain the connection. Although I cannot argue for this here, if the moral vices were understood as deformities of human character, viz., traits whose complex makeup inhibits, hinders, or otherwise compromises ends proper to human beings (which, conversely, are served by the virtues), then on DRU these traits would turn out to be ugly. Thus, at least under a popular conception of moral vice, DRU explains a persistent intuition concerning ugliness.

Jointly, the foregoing considerations show that in addition to its intuitive attractiveness, DRU holds considerable theoretical promise. It provides an objective basis for some ugliness, and offers unity and comprehensiveness in capturing a sense whereby diverse objects can be ugly. Also, DRU is both informative and explanatorily forceful by allowing us to capture and explain at least some seemingly puzzling cases of ugliness.

III.

No doubt DRU will be met with counterexamples. I consider some of these below and show that they can be addressed without resort to ad hoc moves or implausible commitments.

First, suppose one has a deformed heart. His heart is malformed in a way that inhibits performance of its function. This deformity is moreover experienced as painful. It would, nonetheless, be odd to say that the heart is ugly. Perhaps it is even found prettier


34 I explore this argument in greater detail [deleted for anonymity].

35 Known as ‘neo-Aristotelian ethical naturalism’, this is the official meta-ethical view in virtue ethics, espoused by, inter alia, Philippa Foot, Natural Goodness (Oxford: OUP, 2001) and Rosalind Hursthouse, On Virtue Ethics (Oxford: OUP, 1999).
than normal hearts (perhaps it looks more like the stereotypical lay drawing of a heart rather than a lump of muscles).

But pain is different from displeasure. Whereas displeasure is characterized in part by reference to an intentional object, pain, while localizable, characteristically lacks intentionality, in not being about, or directed at anything in particular.\textsuperscript{36} Thus, as ‘pleasure’ in beauty is normally understood to be distinct from pleasant sensation, so ‘displeasure’ in DRU\textsuperscript{**} should be understood as distinct from pain. Hence, non-ugly objects eliciting painful sensations due to deformities are no counterexamples to my account.

Second, suppose you are reading a text, and stumble across a sentence, or indeed a whole paragraph, that is incoherent, such that it fails adequately to convey what is presumably intended. This can be very annoying. But it is not clear that one would call this ugly.

At least one philosopher, however, has suggested that ‘there is a sort of ugliness in the mere fact of incoherence, and this we must call an aesthetic ugliness’.\textsuperscript{37} If this is true, then this is hardly a counterexample, for it is not obvious that we should refrain from calling such an object ugly. In fact in some cases we may even welcome the suggestion that the passage is ugly, as when we locate such a passage in a work by some supposedly eminent thinker. So perhaps we should grant that incoherent sentences or passages are ugly, at least sometimes.

But suppose one insists on not calling an incoherent and displeasing passages ugly. What is likely going on here is that the objector is expressing an overall

\textsuperscript{36} See, for example, Saul Kripke, \textit{Naming and Necessity} (Cambridge MA: Harvard University Press, 1980), especially 151ff.

\textsuperscript{37} Henderson, ‘The Concept of Ugliness’.
judgement of the passage’s aesthetic value. It may be that the passage, in spite of its incoherence, is overall particularly pleasing in virtue of its sonic properties. But if so, then it seems plausible that, if pressed, the objector will not also deny that the passage is ugly in some respects, that is, its cognitive or structural features, albeit perhaps beautiful-sounding. Thus, in this case we should say that the passage is ugly insofar as it is deformed, but not ugly insofar as it sounds good, and perhaps not overall or all things considered ugly. Thus, understood in pro tanto fashion, such that something can be ugly insofar as it meets DRU** but also pretty, attractive, or whatever, insofar as it has other, positive aesthetic qualities, DRU** is compatible with the claim that deformed objects can displease us yet still not be called ugly.

Third, suppose someone has suffered highly disfiguring burns or is missing limbs such that perceiving him we cannot help but feel a keen sense of displeasure. Could we nonetheless not maintain that such a person is not ugly? A positive answer is suggested by Nehamas’ reflections on John Merrick, a grossly deformed man suffering from

38 Another possibility may be that the objector favours a view whereby aesthetic properties, including ugliness, necessarily depend on perceptible properties, hence incoherence in writing fails to qualify. I have purposely formulated DRU** to allow for ugliness in imperceptible objects. I could, of course, modify it to reflect the requirement of perceptibility. However, I think that such a view is mistaken and must be rejected, because it has highly counterintuitive implications, such as a denial of the possibility of mathematical beauty and ugliness, of non-sonic literary beauty, and so on. However, if the reader is otherwise inclined, I beg her to oblige me by qualifying DRU**, rather than rejecting it outright.

39 Note that this can be understood in either of two ways. It might be that the object is overall more beautiful than ugly either in the narrow sense, or in the broad sense, in that it generally has more aesthetic merit than demerit. The difference does not matter for the discussion here.

neurofibromatosis, as he is portrayed in David Lynch’s film *The Elephant Man*. For Nehamas thinks that although at first we find Merrick ugly, we then experience him as beautiful, even though we may be shocked by his appearance.

One likely explanation and answer here can be adduced from has already been said. Perhaps in such cases we are either simply making an all-things-considered judgement, or foregrounding one’s *pro tanto* aesthetically positive qualities, in either of two ways. On the one hand, we might be attending to someone’s overall appearance, which may be very pleasing indeed, save for their deformities, and feeling overall that they are beautiful. But this does not rule out DRU** since to do so, it is required that there is no respect in which we would call such people ugly. And it is plausible that we should grant that *insofar as* their physical deformity goes, they is ugly, even though he may be beautiful overall. But this is not so promising in the case of John Merrick, for he is clearly not overall beautiful. On the other hand, though, sometimes we may experience people in light of knowledge of their character, or in virtue of expressive features that manifest certain pleasing character traits and these are, in the same way as before, outweighing the deformities, so to speak.41 Once again, however, while we may grant that a person may be beautiful overall, we should allow that *insofar as* she is deformed, she is ugly. So there is no counterexample to DRU** here.

But what if the objector presses on, refusing to call the unfortunate fellow ugly? Two explanations will serve as responses here. Perhaps the refusal to call such a deformed person ugly may be explained by our displeasure not being taken in the experience of his deformity, but rather in the fact that they are deformed. In other words, we may not

experience displeasure in perceiving or contemplating the burns or disfigurations but be saddened or whatever at the fellow’s misfortune. So no counterexample here.

A better explanation, however, is the following. Often, we may take displeasure in someone’s deformities but also feel such displeasure as inappropriate. This is because sometimes we not only experience people’s deformities with displeasure, but also experience second-order responses indicating that our displeasure is undeserved.

Does this undermine DRU***? I do not think so, for the following reasons. The experience just mentioned is rather tangled. Importantly, it seems to me to involve a confusion between two different senses of inappropriate, i.e., aesthetic and ethical inappropriateness, which are, moreover, directed at different objects. Let me explain. Consider the unfortunate sitter in Quinten Massys’ portrait An Old Woman, better known as The Ugly Duchess. This woman looks ugly; anyhow, she is paradigmatically so considered. So it seems correct to say that she is ugly at least insofar as her appearance goes. Yet, she no more deserves to be ugly (or to have suffered Paget’s bone disease) than the next person. Now, ethically, it may be advisable to try and moderate our expression of displeasure in interacting with a person with the Duchess’ looks in real life. Indeed, it is advisable that we do so, since people can be deeply hurt by our responses. Perhaps it is also the case that our effort to overcome our displeasure in experiencing another person with severe deformities is all the greater if we consider their looks to be undeserved. Yet it no more follows from this that aesthetically they do not deserve to be judged ugly, or that our displeasure in their deformity is unmerited, than it follows from the fact that Sophia Loren’s or James Dean’s looks, and Maria Callas’ voice, are largely down to natural lottery, that we should be mistaken in judging them beautiful and delighting in our experience of them. Returning to ugliness, the groom in the Marine Wedding series of photographs is a case in point. Having suffered gross injuries as marine sergeant in the Iraq war, he had to undergo multiple stages of facial reconstruction, such as he has no
recognizable facial characteristics, except his eyes and mouth. Unpalatable though it sounds, he seems physically ugly.

Hence, our discomfort in uttering our judgement or guilt-ridden displeasure should not be taken to discredit my proposal, namely that, insofar as someone or something is deformed in the sense outlined here, and the experience of such deformity displeases us, then she or he or it is ugly, although we may decide (with good reason) that expressing this would be (ethically) inappropriate.

A fourth and last counterexample to DRU** is the following. Dragons, cyclopses, werewolves, vampires and mummies, are deformed, hybrid creatures. Often, moreover, such creatures repel, horrify, and otherwise displease us. Yet, we do not necessarily call these monsters ugly and sometimes it would be strange to do so.

This objection rests on a mistake. For dragons, vampires, and the like, notwithstanding the fact that they are fictional, are species or kinds of their own, with their own form, ends or functions. We may sometimes call them deformed or conceive of them as deformed in virtue of their anthropomorphic qualities which render them prone to being seen as humans. But the fact that some monsters may sometimes be thought to be deformed and displease us, but not found ugly, does not undermine DRU**. This is because the aforementioned creatures are not deformed. (although presumably some specimens of them are). Nor, I think, do we normally experience them as deformed, provided we are acquainted with their fictional existence. But DRU** requires that an object is deformed. Hence, monsters that are not found ugly are no counterexample to DRU**.

Thus, in addition to its merits, DRU** survives reflective scrutiny. Pending any serious worries, we should accept the present proposal.
IV.

I have argued that, with some qualifications, deformity and displeasure jointly suffice for ugliness. First, I offered several considerations in favour of the connection between ugliness and deformity, and rejected a number of alternative suggestions. Second, I suggested that DRU** is theoretically meritorious, offering a partly objective conception of ugliness, which is comprehensive, informative, and explanatorily forceful. Third, I responded to a number of counterexamples designed to suggest that some objects can meet the conditions in DRU** yet not be ugly. I conclude that the deformity-related conception of ugliness, articulated in DRU**, is well-founded.