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Citation for final published version:

Paris, Panos 2020. Functional beauty, pleasure and experience. *Australasian Journal of Philosophy* 98 (3) , pp. 516-530. 10.1080/00048402.2019.1640754

Publishers page: <https://doi.org/10.1080/00048402.2019.1640754>

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FUNCTIONAL BEAUTY, PLEASURE, AND EXPERIENCE

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Forthcoming in the *Australasian Journal of Philosophy*.

Please only cite final, published version.

Abstract

I offer a set of sufficient conditions for beauty, drawing on Parsons and Carlson's account of 'functional beauty'. First, I argue that Parsons and Carlson's account is flawed, whilst falling short of its promise of bringing comprehensiveness and unity to aesthetics. Instead, I propose, the account should be modified to state that if an object is well-formed for its function(s) *and* pleases competent judges in so far as it is thus experienced, then it is beautiful. I argue that my proposal offers greater informativeness, comprehensiveness and unity—accommodating, *inter alia*, mathematical, literary, and moral beauty—whilst surviving reflective scrutiny.

Keywords

beauty; function; form; pleasure; experience; aesthetics

1. Introduction

The history of philosophy suggests that defining beauty is a daunting task. This may explain why, despite a resurgence of interest in beauty in analytical philosophy (see Danto [2003], Armstrong [2004], Nehamas [2007], Sartwell [2007], Scruton [2009]), scarcely anyone is articulating a theory of beauty by advancing necessary and

sufficient conditions.¹ Yet notwithstanding beauty's elusiveness, and though seldom attempted, perhaps we can make headway by offering *sufficient* conditions for it.

In what follows, I argue that if an object is well-formed for its function, and pleases competent judges in so far as it is thus experienced, then it is beautiful. To this end, I briefly introduce Parsons and Carlson's account of functional beauty. I then identify two worries; the first concerns the account's claims to advance unity and comprehensiveness in aesthetics; the second involves counterexamples. I subsequently introduce modifications that address these problems, and argue that my proposal gains in theoretical merit partly by unifying still more disparate usages of 'beauty' than its predecessor—including talk of mathematical, literary, and moral beauty—whilst surviving reflective scrutiny.

2. Functional Beauty

Functional beauty can be captured by the following:

Functional Beauty (FB) = If an object, *O*, *perceptually appears (looks) well-formed for its function(s) to competent judges*,
then *O* is (functionally) beautiful.

¹ Nehamas may seem an exception, judging by remarks like: '[the] judgement that you are beautiful ... is identical with the spark of desire' [2007: 55]; or talk of an 'analytical' connection between beauty and love [2010: 206]. Yet that appearance fades when he clarifies that he is not concerned with '*what it is to be beautiful* [but] *what it is to find something beautiful*, in the phenomenology and not the ontology of beauty' [ibid.: 205].

I take FB to be an accurate, albeit formulaic, statement of Parsons and Carlson's [2008] proposal, though some clarification is in order.

First, I use 'well-formed' as a catch-all term for the garden variety of functional beauty that Parsons and Carlson identify [ibid.: 94–100]. By 'form', I mean the arrangement of an object's elements and their interrelations, or the object's design (compare my [2018b]).

Second, what matters for FB is the *proper* function (or functions) of an object, as opposed to whatever purpose an object happens to serve. Objects' proper functions are those which can be understood as belonging to the object, as opposed to being incidental to it. The contrast is captured linguistically by the difference between an object's 'having function F' and its 'functioning as F' [ibid.: 62–9]. For example, a bookcase has the function of storing books, though it can function as a piece of decorative furniture, or a display cabinet.²

Third, to explain how knowledge of function informs aesthetic experience and appreciation, Parsons and Carlson [ibid.: 91–4] draw on Walton's widely accepted theory, whereby an object's aesthetic properties depend, partly, on knowledge of the category to which the object belongs. Walton [1970] argued that if perception, or experience more generally, is often *experience as*; and if, plausibly, aesthetic

² Parsons and Carlson [2008: 62–89] defend an account of function, which I cannot discuss here. I also ignore other complexities like the case of multifunctional objects. These, I think, can be handled in different ways, depending on the case at hand: by seeing them in light of a unitary function, viz., realising a number of functions at once (as with Swiss army knives or sofa-beds); or by appreciating them in a *pro tanto* fashion (on which more below), by considering their form in light of functions X, Y, Z, etc. Either way, functions can either be weighed equally, or hierarchically; for a discussion, see De Clercq [2013].

properties depend on our experience of an object's base properties; then the category under which an object is perceived will affect our experience of its non-aesthetic properties, and so also its aesthetic properties. This is because the category under which an object is perceived determines which of its properties count as standard, variable, and contra-standard.³ If so, then, plausibly, the *functional category* under which an object is perceived, i.e., its perceived function, can likewise affect its aesthetic properties. Cases where learning some object's function alters our aesthetic judgement thereof support this claim [Dawkins 2006: 24; Parsons and Carlson 2008: 123–4].

Fourth, 'competent judges' are individuals with considerable knowledge and experience of the relevant category and of how an object's form is supposed to realise its function. Later, in articulating my own proposal, I will briefly elaborate on this notion, but for now, this seems adequate to accommodate what Parsons and Carlson have in mind in stating that what is required is knowledge and 'understanding ... of *how*, or in what way, the object performs its function' [ibid.: 94]. This point is important, since 'functional beauty' consists in an object's appearing well-formed for its function, hence its appreciation requires not only knowledge of

³ Where standard properties are those partly by possessing which an object belongs to a given category, and are shared by all or most objects in that category, e.g. being coloured for paintings; variable those in virtue of which objects within a given category differ, and which vary between members of a given category, e.g. a painting's palette; and contra-standard those which ordinarily count against an object's membership in a given category, and which none or only few of the objects within a given category possess, e.g. two-dimensionality in sculpture.

what an object's function is, but also understanding of *how* its form realises its function.

Finally, since FB only offers sufficient conditions and concerns a kind of beauty grounded in the function of an object, it is best understood in *pro tanto* fashion, meaning that an object can be functionally beautiful *in so far as* it looks well-formed for its function(s), though also ugly in terms of its shape or colour. For instance, a bookcase may be beautiful in so far as it looks well-formed for displaying books, but ugly in so far as it is an unearthly green.

Now, most criticisms of FB target either Parsons and Carlson's account of proper functions along with their claim that it is these that matter for FB [Murray 2010; Stecker 2011]; or their appropriation of Walton's account [Davies 2010; De Clercq 2013; Stecker 2001]; or FB's reliance on categories, which render it inapplicable to artefacts belonging to no established category [Shiner 2011; Sauchelli 2013]. But these concerns are peripheral to the truth and value of FB, which depend on whether it succeeds as a sufficient condition for beauty.

By contrast, FB's attractions are many: it explains how knowledge of function enhances aesthetic appreciation, both a common feature of everyday aesthetic judgements, and a staple of classical and eighteenth-century aesthetic theories [Parsons and Carlson 2008: 1–30], albeit one evading recent writing in aesthetics [ibid.: 31–61]. Moreover, FB's sufficient condition for beauty comprises an objective criterion, thereby parsimoniously enhancing unity and comprehensiveness in aesthetics by bringing together under a single principle the beauty of many different objects. Finally, FB accounts for informed aesthetic judgements about nature, which are liable to seem a matter of mere visual pleasure [ibid.: 111–36].

Unfortunately, I think that FB fails as a sufficient condition for beauty. Before explaining why, I add two interpretative caveats. First, perhaps Parsons and Carlson should not be understood as offering a sufficient condition for beauty.⁴ Nonetheless, this is the best interpretation of their theory. Certain passages explicitly invite this reading, for instance, that on ‘Functional Beauty ... *some relation of form to function is sufficient, but not necessary, for beauty*’ [ibid.: 45n; emphasis added]. Moreover, Parsons and Carlson’s is a philosophical account, defended by argument, examples, and responses to objections. Were it not offering a sufficient condition, but, say, claiming that people tend to find beautiful what looks well-formed for its function, their methodology would have been poorly chosen. Nor could such an empirical generalisation, as opposed to a philosophical theory, unify aesthetics, which is one of FB’s stated aims. Finally, the account is standardly read as offering a sufficient condition for beauty.⁵ Anyhow, my main concern here is not interpretative. Instead, I want to glean certain insights contained in FB by way of motivating my own proposal.

Second, a word on ‘beauty’. Philosophers often distinguish between a broad and a narrow sense of beauty [ibid.: xiii–iv; Scruton 2009: 16]. In the broad sense, beauty refers to positive aesthetic qualities in general, including the funny or amusing, sublime, or even creative and original (depending on one’s conception of the aesthetic). In this sense, works such as Giacometti’s *Disagreeable Object*, or Xenakis’ music may be called beautiful. In the narrow sense, beauty refers to a specific aesthetic quality and its subspecies. In this sense, beauty has traditionally been construed in terms of pleasure and well-formedness [Armstrong 2004; Sartwell

⁴ Glenn Parsons suggested so in his commentary on a version of my paper delivered at the 2017 American Society for Aesthetics Annual Meeting.

⁵ Compare Stecker [2011] and Davies [2010].

2012; Paris 2018a; 2018b], and so excludes the foregoing examples, either because they are not pleasing, or because they are incoherent, disharmonious etc., by contrast to artworks like Cezanne's bathers or Beethoven's early quartets.

It is not obvious which sense of beauty Parsons and Carlson intend. They say that by 'beauty' they mean 'aesthetic appeal in general' [2008: xiii]. Now, 'appeal' has clear connotations of the attractive and pleasurable, indicating the narrow sense of beauty, while 'in general' seems suggestive of the broad sense of beauty. Then again, FB places considerable emphasis on form, or *how* the object is designed to realise its function, harkening back to the narrow sense of beauty [ibid.: 45n, 90–110]. It thus looks like Parsons and Carlson want both the comprehensiveness of the broad sense and the links to pleasure and form, associated with the narrow sense of beauty. Therefore my counterexamples below, taken together, are designed to weigh against FB regardless of the sense of beauty intended.

As for my own proposal, articulated below, it is, I think, best seen as offering sufficient conditions for beauty in the narrower sense. While still quite broad, I take it to reflect the sense in which 'beauty' was standardly used in eighteenth-century aesthetics. Moreover, I take it that the combination of form and pleasure distinguish it from several notions that fall under the broad sense of beauty, including the funny or amusing, which please, but the pleasure in which is plausibly not traceable to form; and those like the sublime, which are not necessarily pleasurable.

3. First Worry: Unity and Comprehensiveness

I begin with a relatively minor worry. A major theoretical merit that FB boasts is its comprehensiveness and promise to unify aesthetic theory, in offering an account that

captures, *inter alia*, talk of both beautiful natural objects, like plants and animals, and artefacts, including artworks, utilitarian objects, and buildings.

Suppose that FB does unify the beauty of the aforementioned objects, thereby offering a measure of comprehensiveness and unity. Nonetheless, aestheticians are becoming increasingly sensitive to a broader range of usages of ‘beautiful’, comprising talk of beautiful chess or football moves, arguments, scientific theories, mathematical proofs, and even moral character (see Gaut [2007: 114–32]; Irvin [2008]; Saito [2007]; Scruton [2007]; Paris [2018b]). Now, seeing as FB is tailored to capture beauty in objects that have functions, and account for their beauty *qua* functional, one would expect it to be well-placed to accommodate talk of beauty in chess moves, mathematical proofs, theories, etc., assuming that these are all potentially beautiful objects with functions.⁶ Alternatively, one would expect some sort of error theory, explaining why these are not deemed candidates for functional beauty.⁷ By excluding many potentially beautiful functional objects from its purview, then, FB seems considerably less comprehensive and unifying of aesthetic theory than one might have hoped. So if an alternative proposal fares better on this count, that will be *prima facie* reason to prefer it.

4. Second Worry: Counterexamples

Now for a bigger problem: a range of counterexamples demonstrating FB’s failure to offer a sufficient condition for beauty.

⁶ I defend this claim in my [2018b].

⁷ After all, Parsons and Carlson discuss why objects perceptible via the proximal senses are excluded from their account [2008: 175–89].

Assuming a meaningful distinction between the beautiful and the indifferent, many objects that are and *look* well-formed for their function seem not to be beautiful. These include road signs, which are evidently functional but not pleasing (or appealing); and simple metallic bookcases which, while robust and convenient for storing and displaying books, could hardly be plainer to look at. Similarly, although objects like garbage trucks, bins, toilet seats, urinals, tampons, and condoms are, *and appear to be*, ingeniously designed solutions to certain problems (one need only look at their predecessors to see this), they are paradigmatically aesthetically indifferent objects. Many objects that look well-formed for their function, then, are not aesthetically appealing.

More problematic still for FB are objects like torture instruments or concentration camps, particularly their gas chambers, which doubtless rank among the fittest designs for mass extermination [Sauchelli 2012]. These and other artefacts like Mayan sacrificial knives or breast rippers, may even seem rather charming at first glance. However, contrary to what FB predicts, upon seeing how aptly their form is tailored, respectively, to mass extermination, extracting human hearts, or ripping adulteresses' breasts, they plausibly come to look ugly and displease us, no matter how fit for their functions they look.

Consider also pornography, much of which is, and looks, highly fit for its function of sexually arousing audiences and providing outlets for their sexual fantasies; most pornographic films are full of objects of sexual desire, performed convincingly by physically attractive actors, filmed in ways carefully selected to highlight erogenous features, enhance make-believe, etc. Still, it would be odd to call pornographic films beautiful because they look fit for their function (even if some are beautiful because of their visual qualities).

Finally, many objects are designed to shock, scare, or disgust. Disgusting masks, splatter films, and the like, look very fit for their functions. Pictures and films abound, depicting entrails, bodily fluids, necrophilia, etc., in relentless detail. Surely such objects cannot fall under any acceptable extension of the beautiful or aesthetically appealing; after all, the disgusting is, arguably, a subspecies of the ugly and if, as is plausible, ugliness is the contrary of beauty, being well-formed to shock, scare, or disgust, are ways of being not-beautiful. So, either FB is false, or it turns out that on FB positively unpleasant objects can be beautiful the more ugly or disgusting they are, which is, effectively, a *reductio*.

If successful, these counterexamples show that some objects are simply plain or aesthetically neutral, regardless of how well-formed for their function they look; while others are unappealing precisely because of their well-formedness for their function. And while such counterexamples can be multiplied, hopefully the foregoing convincingly show that FB is false.⁸

5. A Revised Proposal

I have argued that FB faces numerous counterexamples whilst not satisfactorily contributing to comprehensiveness and unity in aesthetic theory. I now propose that functional beauty should be modified as follows:

Revised FB (RFB) = If an object, *O*, is

(1) *well-formed for its function(s)*, and

⁸ I have given different counterexamples so that at least one of them will convince readers—this would suffice to conclude that FB is flawed.

*(2) pleases most competent judges in so far as it is experienced
(in perception or contemplation) as (1),*
then *O* is (functionally) beautiful.

As in FB, (1) should be understood in terms of ‘proper function’, though I do not wish to confine RFB to any particular account of proper function. Indeed, perhaps no single conception applies across all objects that can intelligibly be said to have proper functions. It is plausible, for instance, that while a version of intentionalism works for artefacts (see Baxandall [1985]), an evolutionary conception is needed for natural objects [Parsons and Carlson 2008: 69–74]; and some mixed account may seem more apt for culturally evolved practices such as rituals, dances, etc. (compare [ibid.: 74–80]). Of course, defending any such account would take me well beyond the remit of this paper. So, although I appreciate that no theory of proper function would be uncontroversial, and while identifying objects’ proper functions is difficult, I implore the reader to allow for now that the foregoing are, in principle, possible, and that we can often specify, or at least plausibly speculate about, an object’s function even in the absence of a theory, partly by appeal to intuitions of the sort invoked earlier (section 2).

In (2), I intend the notion of a competent judge in RFB to incorporate knowledge of function, as in FB, but also a broader notion of expertise, in line with Hume’s notion of a ‘true judge’, comprising ‘[s]trong sense, ... delicate sentiment, improved by practice, ... comparison, and cleared of all prejudice’ [1777: 241]. Though not uncontroversially, I take Hume’s proposal to amount to a general account of expertise, the idea being that in so far as different kinds of objects can be beautiful [ibid.: 237–8] and knowledge is required to appreciate them, freedom from prejudice,

practice with, and comparison between objects of a certain kind are pathways to that knowledge, in turn shaping one's discriminative powers and sensitivity to salient features of objects.⁹ Moreover, following Hume [1777: 245–9], it seems to me that when it comes to appreciating beauty, particularly that of human artefacts and practices, as opposed to abstract objects like mathematical proofs, expertise must additionally comprise a dimension of psychological and affective normality—including moral variants thereof. For deviations from these will lead to misapprehensions of the objects in question and, *ipso facto*, inaccurate aesthetic judgements.¹⁰ Unfortunately, I cannot defend these assumptions here.¹¹ Nonetheless, if one resists my assumption that a suitable judge of beauty is an expert of the sort Hume envisages, I am confident that plausible alternative construals of expertise will do just as well. So again, I ask the reader to allow me to assume that a story along these lines is, by and large, plausible. What is important is that a 'competent judge' is an expert relative to a given domain.¹² Consequently, the good mathematician will be a competent judge of mathematical beauty, the literary critic of literary beauty, etc.

⁹ After all, such qualities seem equally instrumental for expertly assessing a philosophical argument, or an evolutionary biological explanation.

¹⁰ Unless relativism were true, in which case my proposal still goes through, though most of my critical discussion becomes redundant.

¹¹ Not least since much has been written on Hume's essay; see, e.g., Kivy [1967]; Carroll [1984]; Korsmeyer [1976]; Shelley, [1994]; Levinson [2002]. Elsewhere, I defend a link between moral and aesthetic properties [2018a; 2018b].

¹² In some cases, as with human beauty, normality may suffice; compare Paris [2018a: 645–6].

Returning to (2), ‘experienced as’ is primarily intended to expand the mode of apprehension of potentially beautiful objects from that of perception to other modes, including contemplation (presumably competent judges will know how to appreciate a given object). However, the breadth suggested by ‘experience’ may seem to belie my earlier claim that I am concerned with a narrow sense of beauty. Now, while I am liberal with my use of ‘beauty’, because I think that this best fits critical practices, which include talk of beautiful wines, foods, etc., it would be a mistake to think that my account is susceptible to the worry that, for instance, there may be such a thing as tactile beauty. This is because RFB is concerned with form, and mere sensations lack formal qualities, especially formal qualities organised by a relation to function (see also Paris [2018b: 720]; compare Paris [2017b: 154–5]). Moreover, RFB precludes mindless pleasures from counting towards beauty, since pleasure in RFB is premised on well-formedness, which implies a contemplative dimension. Consider the pleasure one takes in a good bath. This is different in kind from the pleasure in RFB, because the latter is characterised at least partly by reference to an intentional object, whereas the pleasure taken in a bath refers to a pleasant sensation which, while localisable, characteristically lacks intentionality, in not being about, or directed at, anything in particular [Kripke 1980: 151–5]. So if, as I suggested earlier, the pleasure-and-form formula demarcates a genuine and central instance of beauty, then the breadth of ‘experience’ does not entail a broad sense of beauty.

Finally, the qualification ‘in so far as’ serves three purposes in RFB. First, it suggests that the response in question is non-inferential, grounded in the experience of the object’s well-formedness for its function, rather than an inference to that conclusion or knowledge of that fact. Second, it specifies that the intentional object of the pleasure is the object’s well-formedness, which is independent of personal

considerations concerning, for instance, whether or not one has any use for the object, or one's purposes are served by it.¹³ Third, it highlights the *pro tanto* nature of the account, as explained in section 2.

6. Some Merits of the Revised Proposal

It should now be clear that RFB does not predict that the objects that served as counterexamples to FB in section 4 will be beautiful. For although some of them look fit for their functions, they are not such as would seem to please competent judges. Even in counterexamples where the objects may please competent judges, as is arguably the case with pornography, RFB does not predict that the object will be beautiful, because the pleasure in question is not traceable to the object's well-formedness for function but merely the depicted content. And if *some* of the objects that served as counterexamples to FB turn out to satisfy RFB, it seems far more plausible to grant that they are beautiful after all, because RFB is both more demanding than FB, and can point to differences between such objects and those that fail to satisfy it. Hence, I suggest, RFB, though not FB, offers sufficient conditions for beauty.

Additionally, RFB promises greater comprehensiveness and unity in aesthetic theory than its predecessor. For in substituting 'is experienced as' for 'perceptually appears (looks)', it can accommodate talk of the beauty of more objects than those available merely through visual (or indeed aural) perception. RFB thereby unifies disparate usages of 'beautiful', including talk of beautiful novels, people, artworks,

¹³ By this, I do not mean to preclude the possibility of someone adequately appreciating an object while having a use for it. But in this case, her pleasure should pass a counterfactual test: it should persist in the absence of her personal purposes *vis-à-vis* the object.

utilitarian artefacts, buildings, scientific theories, mathematical proofs, animals, and others. Indeed, virtually anything that has (proper) functions can be beautiful under RFB, even though not everything that has functions will be, well-formed for its functions though it may be.¹⁴

Moreover, while RFB construes beauty as a response-dependent property, it differs from, and complements available response-dependent accounts of beauty, according to which an object is beautiful if it elicits a certain sort of response in competent judges [Goldman 1995]. For RFB specifies the intentional object of that response, which serves as an objective criterion for beauty. This means that under RFB competent judges' pleasure can occasionally be misleading, so an object's pleasing some judges cannot suffice for counting an object beautiful.¹⁵ Hence also the need for a quantifier over how many competent judges an object should please. A majority quantifier, though philosophically somewhat messy, seems to fit well with actual practices, whilst being reasonably straightforward and acknowledging borderline or controversial cases.

RFB also differs from another recent popular psychological account of beauty, known as the processing-fluency theory. According to Reber and colleagues [2004] beauty is traceable neither to an object's features nor a subject's response, but what mediates between objective features like symmetry, clarity, and contrast, and aesthetic pleasure. This, they claim, is the ease with which a given stimulus is perceptually or cognitively processed, which is partly determined by speed and

¹⁴ It is worth adding that on the plausible assumption that beauty and ugliness are contraries, RFB complements one of few contemporary accounts of ugliness [Paris 2017].

¹⁵ In short, condition (1) is required in addition to (2): judges can get it wrong, especially when it comes to the objective side of things. Because of this, or because in some cases there may be no fact of the matter, it is possible for (2) to be true while (1) is false.

accuracy. A significant difference between RFB and the processing-fluency theory is that although the latter relates fluency and pleasure to objective features, it still leaves the intentional object of our pleasure unspecified. This is clearest in cases where either children's and adults' or novices' and experts' aesthetic preferences differ. While Reber et al [2004] suggest that these differences can be explained by appeal to factors like repeated exposure to different stimuli, it remains unclear whether the intentional object of the pleasure that these subjects take in what they call beautiful is the same or different—in other words, whether learning, etc. reorient our attention rather than merely changing the fluency with which a given stimulus is processed. This is unsurprising, given that processing fluency concerns the mechanism mediating between an object's features and the pleasure that prompts subjects to call it beautiful. So even if it turns out to be necessary, fluency is not sufficient for beauty, and cannot specify features of the object responsible for it.

Relatedly, while RFB is a philosophical, and normative, account of beauty, processing fluency is an empirical or descriptive account. While not making the latter any less interesting, this suggests that the processing-fluency theory cannot alone distinguish between correct and incorrect attributions of beauty. What is more, processing fluency and the positive affect associated with it are not distinctive of experiencing beautiful objects, but also familiar objects, true propositions, and unreflective judgements of preference and liking. So, the account leaves open the question of what differentiates between these different judgements. By contrast, RFB delineates the scope of pleasure in the (functionally) beautiful by specifying its intentional object. That said, it would certainly be interesting to test whether the relationship between (1) and (2) in RFB may also be characterised by processing

fluency, but that, of course, is a task for another paper. Thus, while compatible with the processing-fluency account, RFB differs in its aim and scope.

Partly on the basis of the foregoing, I think that RFB is richer and more informative than comparable alternatives. But there is more: RFB boasts considerable explanatory force, whilst contributing to comprehensiveness and unity in aesthetics. To show this, I will briefly illustrate how RFB handles three tricky cases: mathematical, literary, and moral beauty.

Mathematicians routinely speak of beautiful theorems and proofs (see Hardy [1940: 84–115]). Whether such talk is genuinely aesthetic, whether mathematicians mean anything more than just pleasure when they use ‘beautiful’, etc., remain unanswered questions. It would thus help if an account of beauty captured talk of mathematical beauty alongside other, less peripheral, usages.¹⁶ While FB cannot allow for mathematical beauty, because it is restricted to perceptible objects, RFB can accommodate such talk. But there is further reason why RFB is a better fit for mathematical beauty than FB. Recently, Inglis and Aberdein [2015] enquired into whether talk of the beauty of proofs correlates with their simplicity, usefulness, or features indicative of ‘epistemic value’ (such as how plausible or enlightening a proof is). They collected a list of 80 adjectives frequently used to describe proofs and asked 255 mathematicians to recall a proof that they recently encountered, and indicate how accurately each adjective described that proof, by rating its accuracy on a five-point Likert scale (from ‘very inaccurately’ to ‘very accurately’). The results were entered into factor analyses; these supported extracting four factors. Perhaps surprisingly, adjectives related to the simplicity, usefulness, or epistemic value of the

¹⁶ Admittedly this would not show such usage to be genuinely aesthetic, unless the account in question were also true, on which more later.

proof formed factors of their own, independent of those containing beauty and ugliness. Instead, beauty was clustered under a factor containing some adjectives indicative of functionality, (including ‘deep’, ‘enlightening’, ‘insightful’, ‘fruitful’, ‘non-trivial’) and, unlike the other factors, adjectives indicating pleasure (including ‘pleasant’, ‘charming’, ‘appealing’). Assuming that the factorisation of these adjectives was reasonably accurate, these findings indicate that, contrary to what FB would predict, and consistent with my previous counterexamples, not all proofs that are well-formed for their functions please mathematicians aesthetically or are called beautiful; yet some that are well-formed for their function are called beautiful, *as per* RFB. These considerations suggest that RFB, though not FB, can capture mathematical beauty.

The case of literary beauty further corroborates RFB’s contribution to comprehensiveness and unity in aesthetic theory. Although talk of proper functions in artworks may be resisted, there is a plausible sense in which artistic appreciation is functional. Consider, for example, Lamarque’s elucidation of literary aesthetic appreciation:

Part of what it is to appreciate a work of art as a work of art is to appreciate it as an artifact designed for a purpose. ... We ask: how does it *work*? How do the elements hang together to produce the desired effect? ... All kinds of literary works are structured designs, and critics ... adopt a *Principle of Functionality* [whereby] all aspects of the design can be presumed to fulfil a purpose. [2009: 136–7]

While this may be an apt account of literary appreciation, it seems implausible that successfully following a *principle of functionality* will yield beautiful literature. For de Sade's *The 120 Days at Sodom* follows this principle no less than Eliot's *Middlemarch*. Yet the former is hardly beautiful, while the latter is a paradigmatically beautiful novel. Thus FB fails to predict and account for what seems to differentiate between objects that are (let us assume) comparably well-formed for their function, rendering the one beautiful, the other not-beautiful. By contrast, RFB readily captures and accounts for the difference: whereas the well-formedness of de Sade's work is not pleasing to experience or contemplate, that of Eliot's work is. If this is right, then RFB seems well-placed to accommodate a considerable portion of literary beauty.

RFB can also accommodate the notion of moral beauty, which—tellingly—like functional beauty, was a hallmark of Hume's and Smith's aesthetics (see my [2018a] and Gaut [2007: 114–9]). Since I have articulated and defended the view that the moral virtues are beautiful elsewhere [2018a], I shall not elaborate it here. Instead, I will indicate how RFB may capture moral beauty. Virtues are plausibly human character traits (i.e., complex psychological dispositions, comprising affective, cognitive, desiderative components, in conjunction with internalised principles, beliefs, etc.) that are (especially) well-formed to realise certain (humanly good) ends.¹⁷ Moreover, it is eminently plausible that contemplating the moral virtues (or particular moral actions or characters) pleases us (provided that we are competent

¹⁷ While I cannot defend it here, this conception of the virtues is standard in the literature; see, e.g., Hursthouse [1999]; Foot [2001]; Zagzebski [1996: 134–7]; Adams [2006]. So, my claim is that under this conception, RFB can accommodate the notion of moral beauty. Compare my [2018b].

moral judges), especially once we grasp their design. If so, then RFB provides one way in which moral virtues can be regarded as beautiful, thereby accommodating a historically prominent usage of ‘beauty’, which many contemporary philosophers find puzzling.

Jointly, the foregoing showcase RFB’s impressive contribution to comprehensiveness and unity in aesthetic theory, alongside its informativeness and explanatory value.¹⁸

7. Objections to the Revised Proposal

In this section, I address six objections, by way of demonstrating that RFB withstands reflective scrutiny.

First, RFB may seem wrongly to predict that the funny or amusing is beautiful. For, whatever the precise recipe for funniness or amusement, it seems to involve well-formedness for pleasing an audience. So the funny or amusing appears to satisfy both conditions in RFB; but the funny is not the same as the beautiful.

However, I think that pleasure in the funny is rarely if ever grounded in experiencing an object as well-formed for arousing amusement or laughter. On the contrary, funniness plausibly depends on not being aware of how the form of an artwork or joke is tailored to amuse, and often understanding the latter may ruin a joke. However, if in addition to amusement, competent judges take pleasure in a joke’s well-formedness for amusing us upon acquiring the aforementioned understanding, then I do not see any obstacle to calling the object beautiful. Indeed, many of Buster Keaton’s films and some of Charlie Chaplin’s are quite beautiful, and

¹⁸ RFB can similarly be used to capture the beauty of, *inter alia*, chess moves, moves in sports, arguments, and scientific theories, but I shall leave working these out to the reader.

this beauty is plausibly traceable to our experiencing them as particularly well-formed for amusing us. But such cases, where there is pleasure in well-formedness over and above our amusement, are, I think, special.

Earlier I suggested that artefacts like torture instruments are well-formed for their functions but not beautiful, and took this to count against FB, and hence to motivate RFB. Yet, a second objection goes, many weapons, including samurai swords, are exquisite in their aptness for their functions. Hence, it looks like the relevant counterexamples are not as successful as I thought.

In response, I should firstly note that my counterexamples did not include samurai swords, but torture instruments and sacrificial knives, which, I maintain, are still found not to be beautiful, or even deemed ugly, upon being perceived as well-formed for their function. So it may well be that some objects, like samurai swords, are functionally beautiful, while others, like iron maidens, are ugly in so far as they look fit for their function. It still follows that FB is false.

However, this may seem *ad hoc* unless the difference between samurai swords and torture instruments is explained without begging any important questions. Now, part of the appeal of the example of samurai swords stems from their being undoubtedly elegant and graceful to look at, independently of their function, something that may not be the case with iron maidens, etc. If so, then given both FB's and RFB's *pro tanto* construal, samurai swords present no special problem, for they may also be ugly *in so far as* they are well-formed for killing. But there is another salient difference between torture instruments and artefacts like samurai swords, namely that whereas the former are evidently designed for destructive or immoral purposes, the latter are not, for they are equally appreciable as artefacts for martial arts or defence. This explains how they may even be beautiful

in light of their well-formedness for function, congruously with counterexamples to FB.

A third objection to RFB concerns sadomasochistic rituals or performances. Presumably, the function of these is inflicting pain and humiliation, and the more painful the design, the greater the audience's pleasure. Moreover, in these cases, it might seem like the participants are competent judges. RFB would thus seem to predict that such performances are beautiful. This seems counterintuitive and many would deem such things ugly.

However, this assessment would be premature. For the sadomasochistic case is plausibly more akin to the case of pornography, in so far as the pleasure is one of sexual gratification at the intensity of the victim's torment, rather than the form or design that brings this about. If so, then the sadomasochistic case is no counterexample to RFB, because the pleasure is not taken in well-formedness for function.

But one might beg to differ. After all, there are appreciative communities that do take pleasure in the aptness of horror films to scare, splatter films to disgust, grotesque masks to repulse, and sadomasochistic rituals to inflict pain or humiliation. Moreover, members of such communities are best equipped to appreciate these objects. Hence, in so far as they take pleasure in these objects' respective well-formedness, RFB is committed to counting these objects as beautiful.

Note that biting the bullet here would be a perfectly acceptable option for the proponent of RFB. But I think that proceeding thus would be a mistake. The reason is twofold. Firstly, while there are communities members of which are more finely attuned to grotesqueness or repulsiveness and take pleasure in these, I am sceptical about the sophistication of their responses, and the extent to which they are

grounded in an appreciation of design. Instead, I think that it is more plausible that such cases are akin to the sexual gratification model albeit not (necessarily) sexual. That is, the pleasure is a second-order response to the intensity of the first-order response (disgust, pain, etc.) elicited by what is depicted (in films, etc.) or done (in rituals etc.), or the 'shock value' rather than the form. Secondly, the aforementioned cases are ones that depart from a typical human psychology (compare Gaut [1993]). In other words, members of such appreciative communities are deviant and therefore fail to qualify as competent judges, since a normal human psychology is a *sine qua non* of competent judges. This is not a criticism of such communities, but an observation about our evaluative concepts, which are partly specified by typical human affect, from which sadism, masochism, and pleasure in the ugly and disgusting are deviations. So if my treatment of these cases is rejected, then the problem that emerges is not merely one for RFB but virtually any account of aesthetic or indeed moral value that centrally features affect, to the extent that these also construe values as to any measure objective.

But now a fourth objection lurks: some ancient cultures' rituals featured human sacrifice. Presumably, many such rituals were well-formed for their respective functions, and competent judges would seem to be members of these cultures. We might also stipulate that these people enjoyed such ceremonies. Here, I could hardly claim that entire communities and cultures, like the Aztecs or Mayas, were deviant and so cannot qualify as competent judges.

True. But there are other reasons why these people cannot be seen as competent judges, so that their pleasure in the aptness of these rituals for their function is not criterial of beauty. Specifically, the function that those participants assigned to the performances in question, namely communion with, or blessings

from, the divine, in pursuit of things like more rainfall or improved crop quality, were simply not realised by killing people (or other animals). Hence the rituals in question were anything but well-formed for their function.

But an objector may insist that these rituals did serve some function, perhaps social cohesion or collective catharsis, identifiable retrospectively in light of insights from evolutionary anthropology. In response, I think that human sacrifice is at best of questionable value in realising these functions when compared to alternatives (not least due to its immorality). And although this is perhaps only knowable retrospectively, it still allows us to question participants' status as competent judges. Nor would today's anthropologists qualify, for they can at best only imagine these performances; or, where similar performances are ongoing, they rarely involve human sacrifice; and if they did, I doubt that they would please most competent judges. Anyway, it seems to me implausible that participants took pleasure in these ceremonies' well-formedness for their function. Instead, it seems more credible that their pleasure stemmed either from their participation in an important communal event, or the fact that the ritual went as planned. But these sources are distinct from an object's well-formedness for its function. Thus, RFB escapes unscathed.

Consider now a fifth objection. If there are no gods, and religious artefacts including ceremonies, music, etc. are supposed to serve the gods, then these are not functionally beautiful. Yet they do seem particularly well designed and, in some cases, like Bach's *Magnificat*, exquisitely beautiful.

Many things can be said in response, but for brevity I restrict myself to the following. In the first place, the beauty of these works may not be functional. RFB is only a sufficient condition for beauty, so that there may be much beauty besides what is captured by RFB. However, religious artefacts also appear to be designed to

conjure corresponding sentiment (religious or spiritual) in audiences, and this seems to be a function that some religious works are remarkably well-formed to realise.¹⁹ Hence, they may yet satisfy RFB.

Doubtless more counterexamples to RFB can be conjured, but the foregoing discussion serves to showcase the many strategies available to parry them. However, a final objection questions RFB's theoretical usefulness and informativeness. The objector may point out that it remains possible under RFB that since the more 'objective' condition of the two (i.e., (1), which concerns an object's well-formedness for its function(s)) is not, in fact, the ground of the pleasure, since it does not invariably ground pleasure. It may thus be objected that all that RFB says is that some experiences of well-formed functional objects please because the object is beautiful, whereas others do not, because it is not. So RFB risks being uninformative.

Pleasure is certainly important in RFB. However, RFB states that if most competent judges take pleasure in an object *in so far as* they experience it as well-formed for its function, then that object is beautiful. This remains informative because it specifies the pleasure's intentional object. RFB need not show that the beauty and pleasure in question are *not* orthogonal to the object's functionality. Our intuitions and classifications of objects as beautiful, functional, etc., point to a connection between functionality and beauty, rather than the other way round; and in so far as neither pleasure nor well-formedness for function alone are sufficient for beauty, RFB still performs important and theoretically informative work in specifying a combination that is sufficient. In other words, as long as it is possible to take pleasure in objects for all sorts of reasons besides their beauty, and so to take pleasure in objects that

¹⁹ For a discussion of some relevant issues, see Sauchelli [2012].

are not beautiful, RFB specifies a subset of cases where pleasure in an object counts towards its being beautiful. Questions abound, of course, regarding the role of pleasure in judgements of beauty and the conceptual repertoire of aesthetics generally, but these are not reasons to question RFB—they are reminders that aesthetics is still in its prime.

8. Conclusion

I have argued that if an object is well-formed for its function(s) *and* pleases competent judges in so far as it is thus experienced, then it is beautiful. I begun by showing that Parsons and Carlson's account of functional beauty leaves much to be desired by way of theoretical merit, whilst being open to counterexamples. Instead, I suggested that my proposal (RFB) promises improved comprehensiveness and unity, whilst surviving reflective scrutiny. I conclude that RFB offers a plausible and informative set of sufficient conditions for beauty.²⁰

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²⁰ I am grateful to Berys Gaut for feedback on previous versions of this paper, and Emily Brady for enlightening conversations on functional beauty. I presented a version of this paper at the 2017 Annual Meeting of the American Society for Aesthetics in New Orleans; I am indebted to Glenn Parsons for a commentary on my presentation, and to the audience, particularly Allen Carlson, Miguel F. Dos Santos, Susan Feagin, Tom Leddy, and Yuriko Saito, for their comments. Finally, I would like to thank the Editor, Associate Editor, and two anonymous referees for the *AJP* for invaluable comments and suggestions.

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