

Cuteness as a Product of Natural Selection

John T. Sanders
Department of Philosophy
Rochester Institute of Technology
Rochester, NY 14623
24 January 1991

BITNET: JTSGSH@RITVAX

Draft copy

Comments Solicited

Cuteness as a Product of Natural Selection¹

by

John T. Sanders

Apart from occasional mutterings and curmudgeonly inclinations, it is fairly uncontroversial that, in general, human adults find human infants cute. Furthermore, the superior cuteness of some infants seems to dispose adults more favorably toward cuddling and fussing over them (as contrasted with their less cute peers); such attention--especially where it also leads to more substantial care--is important not only for the welfare of particular children but for the long-term prospects of the human species. None of this is particularly controversial, and I don't mean to quarrel with any of it here.

John Morreall, in 'Cuteness', has made this the central focus of attention within a somewhat stronger argument. Morreall, in particular, argues that ' . . . cuteness was probably essential in human evolution . . . ' because ' . . . our emotional and behavioral response . . . to cute things . . . has had survival value for the human race.'²

Morreall states his 'guiding hypothesis' in the following terms:

. . . in the evolution of our mammalian ancestors, the recognition and appreciation of the specialness of the young had survival value for the species. And so certain features evolved in the young which got them noticed and appreciated; these features constitute cuteness.³

¹ A brief version of this paper was offered as a response to John Morreall, 'Cuteness', as presented at the Eastern Division meetings of the American Society of Aesthetics, Albany, New York, April 1988. Morreall's paper has subsequently appeared in The British Journal of Aesthetics, Volume 31 (1991), pp. 39-47.

² Morreall, p. 39.

³ Morreall, p. 40.

Sanders - Cuteness as a Product of Natural Selection

Thus cuteness, for Morreall, is

- 1) a characteristic set of features now common (although perhaps not universal) among human infants⁴;
- 2) a particular set of features which the infant offspring of our 'mammalian ancestors' once lacked;
- 3) a set of features which was attractive to adult members of our ancestor species' independently of the fact that infants had them;
- 4) a set of features which then was selected specifically because of this attractiveness.

Thus, for Morreall, cuteness is an abstract general attribute of infants that causes adults to want to care for them (or which is the reason, or at least an important reason, for such solicitousness).

I shall try to show, in what follows, that this is, if not an altogether fallacious way of explaining the matter, at least an extremely misleading one. As it stands, in particular, it is too easy to infer from Morreall's line of reasoning 1) that infants in general might conceivably never have developed cuteness, and 2) that infants, because of this deficiency, would then not be cared for as adequately by their parents. An equally wrong further implication, which further helps to express my difficulty with Morreall's formulation of the matter, would be 3) that if baby spiders (for example) had happened to have the abstract general charac-

⁴ Morreall, as well as much of the literature, directs most of his attention to human infants and very young children. I shall follow this course myself in what follows. It is nevertheless interesting to note that some evidence exists that ' . . . perceived cuteness, as determined [anyway] by body proportions, is greater for individuals from age 2 to 12 yr. than for newborns or adults.' (Thomas R. Alley, 'Age-Related Changes in Body Proportions, Body Size, and Perceived Cuteness', Perceptual and Motor Skills, 1983, 56, pp. 615-22). Indeed, subjects seem to choose 6 to 12-year-olds as being maximally cute, when attempts are made to mask all cues other than body proportions. Alley's study seems to have succeeded in showing that bodily proportion does influence perception of cuteness, while at the same time suggesting that perceptions of cuteness may be fairly complex.

Sanders - Cuteness as a Product of Natural Selection

teristic called 'cuteness', while human children did not have it, then human adults would have been more inclined to care for baby spiders than for baby humans. It is to avoid such oddities as these that, it seems to me, a further consideration of the problem is warranted.

It may be, of course, that adults don't give as much attention to uncute children as they do to cute ones, but this is because the uncute kids are different somehow from adult expectation. They are unpleasantly unusual. Now, for children, as a general rule, to be unusual, would be a logical impossibility. But for the same reason it would be impossible, as a general rule, for children to be uncute. Cuteness is just the attribute of looking like an infant (whatever it is that infants look like). It is our antecedent predisposition to attend to and care for infants that rubs off on anything that looks like them. This conflicts with Morreall's view, in which infants acquired a certain look because of its independent ability to attract and please adults of the species.

While it is no doubt true that cuteness in humans may now be identified with some such set as the one mentioned in (1), there is nothing essential about the link between any particular set of features and 'cuteness'; no set of features is intrinsically 'cute'. Rather, cuteness is just any set of features that is typical of babies.⁵ If human babies all (or usually) had six ears, four of which dropped

⁵ As a matter of fact, it would be more accurate to say that what is regarded as 'cute' is some function of the typical features of babies, rather than simply a matter of looking like a normal baby. This qualification is required because it is not usual among babies to be especially cute. Such especially cute babies are a minority. Thus cuteness cannot be simply what is usual among babies. Furthermore, it is not likely that some simple formula based on particular features or combinations of features will reflect the way that cuteness is determined by such features. After all, 'cuteness' may very well be a function of behavioral characteristics, as much as it is determined by more-or-less static physical features, and it may even be that what is regarded as 'cute' bears some relation to the usual

Sanders - Cuteness as a Product of Natural Selection

off by the age of seven, we would probably find that cute. Thus, while it is inevitable that somewhere among our evolutionary ancestors the particular features now deemed cute were not common among the infants of the species (some of our ancestors were one-celled, after all), this does not mean that they were not cute (nor, on the other hand, does it mean that our one-celled ancestors were cute when newly divided). If they required extensive care from **their parents**, then it seems pretty much guaranteed that, as a rule, the adults of the species were every bit as much attracted to the infants as is the case for us, their descendants.

Thus, while it may be that the set of particular features deemed cute in modern human infants was not possessed by the infants of many (most, as it happens) of our ancestor species, this does not mean that those ancestral infants lacked some crucial means of attracting the attention of their parents. Where such attention was vital for the raising of children, it is impossible that our ancestors lacked 'cuteness'. They had different features (they lacked the ones alluded to in (1)), but they were 'cute': they pleased and attracted their parents. So the idea that cuteness may be described as in (2) covers an ambiguity: those mammalian

future significance of having certain physical features as a child. Thus what is cute might depend upon factors that are, strictly speaking, environmental.

The perceived physical attractiveness of babies is, however, a reliably measured variable (see especially Katherine A. Hildebrandt, 'Effect of Facial Expression Variations on Ratings of Infants' Physical Attractiveness', Developmental Psychology, 1983, 19, pp. 414-17). In any case, even though it seems clear that cuteness is not a simple matter of bearing usual infantile features, I shall continue to talk about standards of cuteness reflecting what is typical among babies, thus ignoring the complications raised by this note. Perhaps the more accurate way of putting it would acknowledge that especially cute babies bear certain features (ones that are typical of babies) in some paradigmatic way. This issue is related to such facts as that no real American family can possibly have the same number of children as the average American family has (when that number is not a whole number), and that relatively few Frenchmen consume the same number of loaves of bread per year (whatever that number might be) as does the average Frenchman.

Sanders - Cuteness as a Product of Natural Selection

ancestors may have lacked the particular features that make Dylan and Jordan and Betty Lou and Kate cute among modern humans, but they certainly had to have already had a set of features that encouraged and supported nurturance from parents.⁶ That is, they must have been cute (as a rule) from the perspective of those parents.

The upshot of this is that characterizing cuteness as in (3) is not at all plausible. Parents don't as a rule care for children because they are attractive on some independent standard; instead, their standard of attractiveness in children is in large part based upon how kids happen to look, as a rule. But if this is correct, then talking about cuteness as in (4) offers a very implausible account of how it is that modern babies come to look the way they do. Indeed, I suspect that if the features of modern human infants were to be introduced--whether gradually or abruptly--into the infant population of the ancestral mammals (or whatever) that we've been envisioning, the greatest likelihood is that the infants who bore those features would have been deemed unattractive, and would have suffered the fate of modern kids who are thought not to be cute.⁷ Furthermore, the real reason for the fact that contemporary babies typically have the features usually associated with cuteness is most profitably sought elsewhere. For example: large head size in comparison to body size is best related to facts about optimal biological strategies of physical development in creatures that rely upon large, complicated brains

⁶ As Morreall observes, it is not necessary to imagine that the infants of every species appear 'cute' to their parents. Where no care is needed--where infants hit the ground running, as it were--it is perfectly reasonable to imagine that parents might not care at all about their infants. Thus it is perfectly possible that sufficiently distant ancestors of ours did not find their infant children 'cute' in any sense. This has nothing to do, though, with whether these infants had these or those particular physical features. It is strictly a function of whether the infants needed care, whether they were 'helpless', etc.

⁷ My text here, I guess, is Hans Christian Anderson's 'The Ugly Duckling'.

Sanders - Cuteness as a Product of Natural Selection

at early stages of growth.

This is not, I think, an unimportant quibble. Searching for a quality called 'cuteness' that somehow intervenes between babies and adults, fortuitously helping the latter feel kindly toward the former, commits a common sort of mistake. It is not my purpose to call into question the notion that adults are disposed to find babies attractive or cute. They may even be 'hard-wired' in this way to a considerable extent. But this is just a way of saying that adults are positively disposed toward babies (although it makes special reference, to be sure, to certain notable characteristics of babies). Cuteness has no more ontic status than do the warm cockles on the hearts of people who are in the presence of cute infants.

What is the upshot of this? Morreall talks about cuteness as if it were some property that human infants might not have had--sort of like the opposable thumb. Without the latter, some would claim, we never would have become the splendid creatures that we are. We would have become something else, I suppose. But without cuteness, what? Is there an alternative? Imagine the crucial moment eons ago. On a warm plain somewhere in Africa, perhaps there lived a species of pre-human mammalian creatures. Up to the point in time where our camera pans into their midst, the offspring of this species have not been cute. For this reason, the species has not been very successful: the kids have been banged around quite a bit, parents have been only grudgingly willing to give any care to the infants, and (if these creatures had the rudiments of communication skills) much moaning and groaning was shared among the adults about how downright ugly kids were. Because of all this, the continued survival of the species is in serious jeopardy.

As we join them, however, one of these creatures has just given birth to two offspring. One of these has (let's say) a head that is considerably larger, in

Sanders - Cuteness as a Product of Natural Selection

proportion to its body, than the other (as we will see, this is one of the features that manifests--or constitutes--cuteness in modern human infants). As we track the careers of these two infants, we find that the big-headed infant gets all the primitive equivalents of Teenage Mutant Ninja Turtle toys, Barbie dolls, educational attention, and the like, while the smaller-headed child leads a sad, forlorn life. In particular, the prospects of propagating are considerably enhanced for the big-headed infant by the fact of its superior upbringing, and this, in turn, has been a function of the big head (i.e., 'cuteness'). This child has children, these second generation children (some of them also having bigger-than-usual heads, but with some reversion to the mean) are at an advantage in the struggle for attention and Turtle toys, etc. After this time, the cute (i.e., big-headed) children survived at the expense of the non-cute ones.

As I hope is apparent, this story can't even begin correctly. If cuteness is itself the product of natural selection, we ought to be able to write the story with at least some possibility, in principle, that our ancestors might not have developed cuteness. We must be able to write it this way, that is, if we are to make sense of the claim that 'cuteness' has some evolutionary advantage. But if any ancestor of ours, in any possible line of evolution, had not had cuteness (i.e., a set of features that encouraged and supported parental dispositions to take care of the infant), it seems unlikely that he or she would have lived long enough to be an ancestor of ours. If cuteness is to be a characteristic that plays the role that Morreall thinks it plays, then its absence will be tolerable only in relatively late, relatively civilized stages of the evolution of the species, in which (at least sometimes) non-cute infants are cared for in spite of their lesser attractiveness.

Sanders - Cuteness as a Product of Natural Selection

Isn't it most likely that humans and apes, being the kinds of creature that they are (needing the kind of care in infancy that they need) must always be disposed favorably to babyish-looking creatures (that is, creatures that look like infants of the parents' own species), whatever the typical appearance of a baby might be? What if they hadn't been so disposed? How could the raising of such infants ever get off the ground?

Let us focus on the question: what particular features constitute cuteness? Morreall lists several:

1. a head large in relation to the body
2. a large protruding forehead, with the eyes set relatively low in the head
3. round, protruding cheeks
4. plump, rounded body shape
5. short, thick extremities
6. soft body surfaces which are pleasurable to touch
7. behavior indicating weakness and clumsiness.⁸

Lots of experiments have been done concerning features like these, and, for what they are worth, they have concluded generally that, just as Morreall indicates, it is just those features that are deemed typical of babies ('babyishness') that are also deemed cute by college students enlisted as subjects in endless experiments in which they are exposed to pictures of other people's babies.⁹

⁸ Morreall, op. cit., p. 40. My claim, of course, is that these things are 'cute' because characteristic of babies, not (as Morreall would have it) characteristic of babies because cute.

⁹ For some of the literature on this business, see especially Marilyn Stern and Katherine A. Hildebrandt, 'Prematurity Stereotyping Effects on Mother-Infant Interaction', Child Development, 1986, 57, pp. 308-15; Thomas R. Alley, 'Age-

Sanders - Cuteness as a Product of Natural Selection

But it is important to note that outside the normal range of infant facial feature variability the relation between these features and attractiveness ratings are no longer linear (e.g., in untouched pictures of infants, there is a certain normal range of head size in relation to body size. It is possible to make pictures in which the head appears yet larger than this normal size in relation to the body, and the perception of cuteness does not vary linearly with these beyond-normal variations).¹⁰ It would seem, therefore, that it is not the particular facial features (large head size in relation to body size) that make babies cute (and thus attractive to adults), but, rather, that it is the fact that it is babies who generally have these particular features that makes those features the so-called 'releaser mechanisms'.

What is the significance of all this to questions about the possible universality or objectivity of aesthetic judgments, or to attempts to offer naturalistic explanations for aesthetic categories? I'm not completely sure, but I do not fear to leap in after Morreall into this much stickier quagmire.

If cuteness were a model for other aesthetic categories, it seems to me that the conclusions to be drawn would be these: it is not inconceivable that there are

Related Changes in Body Proportions, Body Size, and Perceived Cuteness', op. cit.; Hildebrandt, 'Effect of Facial Expression Variations on Ratings of Infants' Physical Attractiveness', op. cit.; Hildebrandt & Hiram E. Fitzgerald, 'The Infant's Physical Attractiveness: Its Effect on Bonding and Attachment', Infant Mental Health Journal, 1983, 4, pp. 3-12; Alley, 'Head Shape and the Perception of Cuteness', Developmental Psychology, 1981, 17, pp. 650-54; Hildebrandt and Fitzgerald, 'Adults' Perceptions of Infant Sex and Cuteness', Sex Roles, 1979, 5, pp. 471-81; Hildebrandt & Fitzgerald, 'Facial Feature Determinants of Perceived Infant Attractiveness', Infant Behavior and Development, 1979, 2, pp. 329-39; and Hildebrandt & Fitzgerald, 'Gender Bias in Observers' Perceptions of Infants' Sex: It's a Boy Most of the Time', Perceptual and Motor Skills, 1977, 45, pp. 472-74.

¹⁰ See Alley, 'Age-Related Changes in body Proportions, Body Size, and Perceived Cuteness', op. cit.

Sanders - Cuteness as a Product of Natural Selection

some aesthetic judgments that we are more likely than not to make, specifically because we are the kind of creature that we are. To this extent, due not only to the commonality of the judgments but to their source in our 'hard-wiring', it may be proper to call them 'universal'. Because these judgments may be made almost only when certain objective conditions obtain, it may be proper to call them objective. And because the fact that we are disposed to make these judgments may be linked to evolutionary or other natural advantage, it may be that the categories evoked in making them may admit of naturalistic explanation.

But these categories--like 'cuteness' or 'beauty'--are categories of judgment. They do not denote phenomena in the world that can be entirely separated from features of we creatures who do the judging. In particular, 'cuteness' does not denote just big head and round cheeks and the like, it is a category used to describe things like human babies. Because of this, it happens to be the case (babies being what they are) that big-headedness and round-cheekedness are cute. Babies are the fixed points; we will be (generally) disposed to care for them regardless of how they (typically) look. Whatever their typical appearance: that will be what is deemed cute. This will remain true so long as we remain a species whose young are helpless and require intensive care from us.

The analog with respect to other aesthetic categories is not hard to express, although its implications are not as clear as one might hope. 'Beauty', for example, would not denote merely some set of characteristics that certain objects may have; instead, it would be primarily useful as a category for describing things that have some relation to us, or some apparent value in a wider scheme. To the extent that certain objective circumstances may attach (whether contingently or necessarily) to things that stand in that relation to us or have that value, we may

Sanders - Cuteness as a Product of Natural Selection

be able to construct lists of 'beautiful' features of objects, just as we can construct lists of 'cute' features among human infants.

But such lists can not meaningfully be abstracted from their attachment to the larger scene, within which judgments are made and within which they take their meaning. We need to account for the meaning of terms like 'cute' and 'beautiful'. Cuteness and beauty are not the sorts of things that can properly cause anything, and they themselves are not caused by anything (although judgments of cuteness and beauty may be inspired by certain things, or even, extending the use of the term a bit, caused by certain things).

In the end, it cannot be that cuteness, in itself, has evolutionary value. This is because ancestors of ours could not, in any interesting sense, have been uncute. It is not that species that lacked cuteness among their young would have died off, it is that anything that is typical of infants, within any species that requires extensive nurturance of parents for young, is definitive of cuteness for that species.