Book Reviews

In Your Face: The New Science of Human Attraction

By **David Perrett**

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Over the past decade, the world-wide media has heralded stories about animal cognition with unprecedented fanfaronade. Almost daily, the general public is inundated with so-called "breakthrough discoveries" concerning here-to-fore unimaginable feats of mentation in species ranging from apes to crows. But, just in case you missed it, here's a sampling. Chimpanzees are hunting with spears (Pruetz & Bertolani, 2007), grieving over their dead (Anderson et al. 2010; Biro et al. 2010), fashioning sex toys (Tierney, 2010), filming documentaries of their own lives (Walker, 2010), imagining what each other are thinking (Schmelz & Tomasello, 2011), negotiating collective actions through offers and counter-offers (Melis, Hare & Tomasello 2009), and even making nests for sticks that they are pretending to be baby dolls (Kahlenberg & Wrangham, 2010). Meanwhile, orangutans are playing charades (Cartmill & Byrne, 2007), and suffering from self doubt (Suda-King, 2008), crows are validating Aesop's fables (Bird & Emery, 2009), scrub jays are engaging in espionage (Dally, Emery & Clayton, 2009), parrots are predicting their own demise ("Alex & Me", 2009), elephants are painting self-portraits ("Elephant 'self-portrait'", 2006), and gorillas are using sign language to emote about their difficult childhoods ("Michael's story", 2008). Viewed from a distance, one might be forgiven for mistaking Pierre Boulle's satiric tale, Monkey Planet (Boulle, 1964) (aka Planet of the Apes) as a scientific documentary sent from the future. But are these upwardly ratcheting tales of animal cognition accurate and/or valid? Something doesn't add up. Comparative psychology -- a discipline which once offered the bright promise of defining what makes humans human -- seems on the brink of being reduced to a Vaudeville stage dedicated to performing sensationalistic skits about animal smarts.

The title and author of this new book assure widespread interest within ethology and evolutionary psychology. The title, substance and ample illustrations are likely to attract readers from the general public as well, which is the primary target audience. Anyone paging through the book will quickly see that the book is nicely illustrated with dozens of monochrome photos and figures, as well as eight pages of full color plates placed near the middle of the book. The author, David Perrett, is unquestionably one of the most important contemporary researchers in the area of face perception, especially if one considers the numerous graduate students, some now well-known themselves, who have studied in his lab.

Indeed, an impressive proportion of the research he draws upon in this book comes from his own lab or students, highlighting the major role Perrett has played in contemporary face perception research. While this provides an authoritative insider's look at the output of an important lab, the downside is that the coverage does not provide a balanced perspective on the existent research literature. Fortunately, the research produced by the lab in St. Andrews run by Perrett is typically exemplary. Nonetheless, ignoring research from other labs is risky. Perrett's fondness for research using multi-face composites and computer simulations increases the risk; even when carefully composed there are a multitude of perils in the production of computer composites (see Alley & Cunningham, 1991; this volume, p. 83ff.) and simulations can all too easily produce results that may not generalize to real faces.

Perrett himself occasionally warns of this peril noting, for instance, that "people may find masculinity unattractive [in some studies] because computer graphic manipulations have been unwittingly masculinizing mood as well as anatomy" (p. 116).

Despite the subtitle, much of the book concerns matters other than facial attractiveness. These topics range rather widely and include such topics as the evolution of the face, imprinting, perceptual development, facial expression, odor preferences and maternal love. Psychosocial aspects of facial appearance are the focus of this book in which results from studies in neuropsychology, endocrinology, perception and social psychology are brought together to compose a readable yet fairly authoritative view of facial attractiveness and related matters.

The book starts with chapters on the evolution of the face, facial features, and non-verbal communication (Chap. 1) and on lateralization of face processing, face recognition and attractiveness (Chap. 2). His coverage of face recognition and related disorders is particularly laudable, and even covers the latest internet-based research that indicates impairments of face recognition are far more common than previously believed. Chapter 3 focuses on infants' perception and responses to faces, including early appearance of preferences that match adults' facial aesthetics.

The central discussion of facial attractiveness is found in Chapters 4 and 5. Perrett begins with a brief but effective discussion of facial enhancements found in various cultures, such as lip rings, skull shaping, tooth filing. It is all too easy to see these as proof that there are no universals of facial beauty even though, as Perrett argues, universals may coexist with cultural variation. Like many before him, however, Perrett fails to note that these striking facial alterations may not even have an aesthetic motivation; instead, the actual motives may include group membership, marital status, bravery, etc. His discussion of beauty highlights universal tendencies to favor both symmetry and normality (averageness) but also emphasizes individual differences in preferences. Perrett returns to the topic of individual differences in preferences later in the book (Chap. 9), where his discussion centers on the effects of facial appearance on perceived personality and the more neglected inverse, the effects of facial appearance on one's personality. The continuing discussion of attractiveness in Chapter 5 targets facial features that can enhance attractiveness beyond the limits of averageness. The ethological concept of supranormal stimuli works well in this situation but, alas, Perrett does no more than mention it without any exposition and in connection with the curvature of female bodies. He does make it clear that it applies to faces as well; for instance, with super-feminines haped faces being seen as most attractive. The specific traits examined in Chapter 5 are largely limited to masculinity and femininity, with the later enhancing attractiveness in women's faces whereas masculinity has mixed effects for men. Perrett explains this discrepancy by noting the mixed effects of high-testosterone: this can make men appear more masculine and attractive but reduce their likelihood of being good long-term partners. Perrett also connects this dimension to the monthly hormone-related fluctuations in "ideal" men as seen by women.

Being a book for the general public, Perrett (Chapters 6 and 7) wisely presents the argument, well-known to ethologists, that we are attracted to facial beauty due to its tie to fitness (especially health) and reproductive potential. Perrett's argument is nicely up-to-date and multidimensional, hence, the use of 2 chapters to make this argument. He covers MHC genes, smoking, cross-cultural studies, and skin tone, among other matters.

Taking a closer look at Chapter 8, "Wither the face: On the cuteness of babies and the effects of time", we find an integrated look at the effects of aging on reactions to facial appearance across the lifespan. As obvious as this seems, I question whether this is a good approach. The kindenschema and related research on effects of babyish characteristics in adult faces revolve around a positive affect response that encourages caregiving. Attractiveness in the faces of adults,

on the other hand, is closely tied to the mate value (e.g., health and fertility) of those perceived. While this point is not made, the discussion does deal with cuteness separately from adult attractiveness. The discussion ranges widely, as it should, including not just the normal biology of aging but also smoking, sun exposure, and a far too brief look at cosmetic surgery.

The final two chapters address what I see as more speculative issues. One is the influence of friends and family on our idiosyncratic facial preferences (Chap. 10). This includes the claim that people tend to be attracted to those who resemble their opposite sex parent. The final topic (Chap. 11) is the nature of love and infatuation.

Although scholarly, the book is designed for a general science audience, and has the scholarly weaknesses that follow from this tack. These include somewhat minimal referencing in places, with the references footnoted and 'hidden' in the back of the book. Some claims for which I expected a citation are made without any referencing of the underlying research. For those wondering what Perrett might have to say about a particular paper or researcher, your efforts will be stymied by lack of both an author index and a reference section. Perrett regularly provides material that may be essential for the general reader, but this means researchers will have to skim through some unnecessary explanations and definitions, such as those for "identical twins".

On the positive side, this book is certainly easier to recommend for a general audience than any of the previous books of this type (e.g., McNeill, 1998). The book tackles facial attractiveness in very broad perspective, and the text has an unconstrained breadth and a serpentine discourse to it that are seldom if ever found in fully academic works. It should be a thought-provoking pleasure to read for those who are unfamiliar with research on facial attractiveness. In addition, there are numerous excellent illustrations that provide compelling illustrations of variations in facial appearance and their effects, often by purifying or exaggerating them. Even though a few of the figures have dubious value, such as a computer-generated image of a human face stretched over the anatomy of a frog and a hagfish (Fig. 1.1), overall the ample illustrations are certainly a strength of this book. Furthermore, many of them are not readily available elsewhere. While neither intended nor suitable as an advanced guide to the field, this book should work well for an undergraduate seminar. Recommended for nearly anyone interested in a thoughtful introduction to the topic of facial appearance, and especially for students and researchers who are new to the area or whose specialized research on faces or physical attractiveness has left them in need of a more informed perspective on the broader field.

References

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