

Face-ism and kernels of truth in facial inferences

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In a recent article in the Science & Society section of this journal [1], Olivola and colleagues delivered a powerful argument about fighting the phenomenon that they called ‘face-ism’.

- (i) Many important social decisions are made on the basis of people’s facial appearance.
- (ii) Social inferences based on facial appearance are inaccurate and unreliable.
- (iii) Therefore, we need to stop people from using faces as a basis for social decisions.

We very much agree with the conclusion of this argument. We as scientists must leverage our understanding of facial judgments to design policies that will prevent people judging a person guilty just because that person looks untrustworthy – or to design policies that will prevent people from elevating a person to power simply because that person looks like a leader. However, although we agree with this conclusion, we take issue with the claim that facial appearance can yield only inaccurate and unreliable social inferences.

Although our argument could apply to many social inferences [2], we focus here on trustworthiness judgments. Many recent articles have demonstrated that people could trust the right individuals on the sole basis of their facial appearance [3–8]. Is this effect large? No. The studies point to small effects, just above the level of random guessing. Facial signals of trustworthiness are noisy, elusive, and better ignored in favor of more reliable signals if the goal is to reach an accurate judgment. Furthermore, people have no conscious insight about their ability to detect trustworthiness from faces [3], making it unwise to try to rely on this capacity to make social decisions. From a policymaking perspective, this opacity and limited reliability are unredeemable shortcomings: it simply cannot be advised to make decisions based on facial trustworthiness judgments. From a scientific perspective, however, the evidence remains that people have some minimal capacity to detect trustworthiness from facial features.

We believe that the commendable, legitimate, and benevolent social motivation of Olivola and colleagues (i.e., fighting face-ism) led them to de-emphasize the evidence for a kernel of truth in facial judgments, to such an extent that non-informed scientists may form a wrong impression

of the state of the art. Attempts to identify trustworthiness or cooperativeness from facial features have not been ‘debunked and abandoned’ within the scientific community, as the authors state in the article. On the contrary, new findings continue to be published that refine our understanding of trustworthiness detection from faces, its correlates, and its boundary conditions. Although these findings must be critically examined [9], they cannot be ignored.

Consider for example the finding that adolescents gradually improve at the task of detecting trustworthiness from the faces of unknown adults [5]. At age 13 years, adolescents playing a trust game with adult partners are barely able to discriminate trustworthy and untrustworthy partners, making correct decisions for about 53% of faces (where random guessing would lead to a 50% accuracy rate). Trusting decisions, however, get better with each passing year, up to a 60% accuracy rate at age 18 years (compared again with a 50% accuracy rate in the case of random guessing). Consider also the finding that urban French participants could detect the cooperativeness of rural Senegalese men simply by looking at their pictures with a 58% accuracy rate, significantly greater than the 50% accuracy that would be expected from random guessing [8]. These developmental and cross-cultural findings require an explanation and this explanation is unlikely to be consistent with the assumption that facial inferences are wholly and hopelessly inaccurate.

Desirable social outcomes, however, can be achieved without committing to this assumption. We agree that facial inferences are inaccurate to such an extent, and with such untoward consequences, that the only sensible course of action is to educate citizens not to make any consequential decision based on another individual’s facial appearance. For policy-making purposes, the kernel of truth in facial judgments is simply not significant enough to compensate for the negative consequences of face-ism.

We should be careful, however, to separate the political from the scientific. In the political arena, there are good reasons to not mention evidence for a kernel of truth in facial judgments – but there are no such reasons to disregard this evidence in a scientific forum. It is important that we investigate the cognitive mechanisms that drive successful inferences from faces, their biological correlates, their boundary conditions, and their adaptive function.

We must be careful, of course, about the way we communicate these findings, for we should never facilitate unfair decisions by giving the impression that facial appearance is a reliable, usable mirror to the soul. However, we must be just as careful when we address face-ism in a scientific forum: we can and we must aim at defeating

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face-ism without overlooking the evidence for accurate facial judgments.

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Response to Bonnefon *et al.*: Limited ‘kernels of truth’ in facial inferences

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In a recent letter [1] Bonnefon and colleagues commented on an article that we published in this journal [2]. We thank Bonnefon and colleagues for the opportunity to address the issue of the accuracy of character inferences from faces, which we have discussed extensively elsewhere [3–5]. Part of our argument that such inferences are harmful relies on the assumption that these inferences are generally inaccurate. These authors question this assumption, arguing that the ‘evidence remains that people have some minimal capacity to detect trustworthiness from facial features.’

Before we address this evidence it is good to remind ourselves of Walter Mischel’s seminal work from the 1960s [6]. Mischel showed that personality is not a very strong predictor of behavior across situations: we would not expect people who cheat in economic games to also cheat on their partners. One of the studies cited by Bonnefon *et al.* [7] found zero correlation between two measures of altruistic behavior: cooperation in public goods games and charitable contributions. Trustworthiness judgments from faces predicted the former but not the latter.

What should we make of the better-than-chance trustworthiness judgments in these fairly constrained situations? We have already shown that ‘better-than-chance’ is an extremely feeble criterion for measuring performance [3]. In a nutshell, in most real-world situations where the guessed categories are unequally prevalent, relying on judgments from faces makes predictions worse. Rather than reiterating our findings, we can demonstrate their logic

using Bonnefon *et al.*’s own results [8] which show that participants are less likely to invest in ‘abusers’ than in ‘cooperators’ in a trust game. At first glance, these results give the deceptive impression that relying on faces to judge ‘trustworthiness’ is a profitable strategy. Nevertheless, had their participants ignored the faces and trusted everybody, they would have nearly doubled their profits. The reason has to do with the unequal distribution of abusers and cooperators – a ratio of 1 to 5 in their data. Their participants only invested half of the time in trustworthy partners. With this level of trust, and given the preponderance of cooperators, even if their participants had been perfect at detecting ‘abusers’ they would still have obtained lower profits than they could have by closing their eyes and trusting everyone. In sum, ‘better-than-chance’ performance is an insufficient reason for celebration [3].

People may indeed derive valid information from faces, but this information is limited to intentions in specific situations [5]. It is important not to confuse these situation-constrained intentions with broader inferences about character traits. If face images were a reliable guide to character, it would not be possible to dramatically alter character judgments such as trustworthiness by simply presenting different images of the same person [4]. Yes, the face may contain ‘kernels of truth’ about specific intentions or situations [9] in the form of subtle expressions [4,10], but these kernels do not lead to accurate generalizations across situations. We do not need to appeal to ‘social motivation’ to shun these judgments as a guide to figuring out other people or the world around us.

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