For: *Philosophical Topics*, Edited by Christopher Hill and Brian McLaughlin, 2016, Vol.44(2), pp.83-103.

Perceptual Appearances of Personality

Berit Brogaard

March 10, 2016

Abstract

Perceptual appearances of personality can be highly inaccurate, for example, when they rely on race, masculinity and attractiveness, factors that have little to do with personality, as well as when they are the result of perceiver effects, such as an idiosyncratic tendency to view others negatively. This raises the question of whether these types of appearances can provide immediate justification for our judgments about personality. I argue that there are three reasons that we should think that they can. (i) The inaccuracy of these types of appearances is not nearly as widespread as it may initially seem. Even thin-slicing in zero-acquaintance conditions seems to reliably track many personality traits. (ii) The thought that perceptual appearances of personality can justify our beliefs only in conjunction with background information rests on a failure to acknowledge the existence of genuine high-level perceptual appearances of personality. (iii) Perceiver effect cases are not unlike cases in which we have inaccurate low-level perceptual appearances in unfavorable perceptual conditions.

Keywords: evidence-insensitivity; facial expressions; moral perception; multisensory perceptual experiences; perceiver effects; perceptual learning; personality traits; phenomenal dogmatism; prima facie justification; thin-slicing; zero-acquaintance conditions

1. Introduction

We automatically make inferences about the personality traits of the people we are around, whether they are strangers, acquaintances, friends or family members. The majority of these inferences are fast and unconscious. However, they frequently give rise to perceptual appearances to which we have conscious access. For example, after listening to and observing your friend's new boyfriend for a while, it may come to appear to you that he is untrustworthy, unfriendly or introverted.

Perceptual appearances of personality can be highly inaccurate, for example, when they rely on race, masculinity and attractiveness, factors that have little to do with personality, as well as when they are the result of perceiver effects, such as an idiosyncratic tendency to view others negatively. This raises the question of whether these types of appearances can provide

immediate justification for our judgments about personality. That is, can they confer justification on beliefs that are based on them on their own? If they cannot, then the question arises how we gain knowledge about the personality of others.

The general view that perceptual appearances can confer immediate justification on our beliefs is also known as 'phenomenal dogmatism' (Tolhurst, 1998; Pryor, 2000, 2005; Brogaard 2013a; Brogaard, forthcoming, Chudnoff, 2013). The view may be articulated as follows:

> If it appears to *S* as if *p*, then, in the absence of defeaters, *S* thereby has at least some degree of justification for believing that *p*.

Phenomenal dogmatism holds that unisensory and multisensory seemings (or appearances) can confer immediate justification on beliefs.[1] The beliefs that are justified in this way are foundational, that is, they do not depend on any other beliefs or background information for their justification.

Phenomenal dogmatism is rather plausible for perceptual appearances of low-level states-of-affairs, such as instantiations of color, shape and texture. Whether the view can be extended to appearances of high-level states-of-affairs, such as instantiations of natural kinds, personality traits and moral features, is considerably less obvious.

There are several reasons besides potential error that may make us doubt that appearances of personality can provide immediate justification for our judgments about personality. Because personality traits have a highly complex structure, it may appear that our observations of people could not possibly give rise to genuine *perceptual* appearances of personality. If we look at a red color patch, it is beyond doubt that this act could give rise to a perceptual appearance that the patch is red. But it may seem that it could not come to *perceptually* appear to us that a person is neurotic, agreeable or extraverted on the basis of observations of how the person is acting. Suppose I see a person entertaining a large group at a social gathering. While I may come to believe that the person is extraverted on the basis of my observations, one might argue that the only sort of perceptual appearances I could have in the envisaged scenario are appearances of the person's look, her position in the room relative to others, etc. Even if these kinds of appearances can give rise to judgments or degrees of beliefs about personality, however, they do not represent personality traits and hence they aren't genuine appearances of *personality*. If they are not genuine appearances of personality traits, then they cannot confer immediate justification on the judgments about personality traits. At best they can confer justification on judgments about personality traits in conjunction with background information about how the trait manifests itself in various situations.

[1] These seemings could also include amodal (perceptual) seemings, if multisensory seemings should turn out to be amodal rather than across-modal. If phenomenal dogmatism were to be extended to intuition and metacognition, one might want to include cognitive feelings and gut feelings among the 'seemings' as well. I shall set those aside here.

I argue here that there are three reasons that we should think that there are genuine perceptual appearances of personality and that these appearances can confer immediate justification on judgments about personality. (i) The inaccuracy of these types of appearances is not nearly as widespread as it may initially seem. Even thin-slicing in zero-acquaintance conditions seems to reliably track many personality traits. (ii) The thought that perceptual appearances of personality can justify our beliefs only together with background information rests on a mistaken conception of the nature of high-level perceptual appearances. (iii) Perceptual effect cases are not unlike cases in which we have inaccurate low-level perceptual appearances in unfavorable perceptual conditions.

The structure of the paper is as follows. In section 2 I argue that there are genuine perceptual appearances of personality that come about as a result of perceptual learning. In section 3, I argue that our appearances of personality are considerably more accurate than it may at first seem. In second 4, I look at personality disorders and perceptual effect cases and argue that these cases can be treated in the same way as low-level perceptual cases in unfavorable perceptual circumstances. Finally, in section 5 I look at a possible objection to the view that perceptual appearances of personality track personality traits rather than something else that is unrelated to personality.

2. Perceptual Appearances of Personality

Perceptual appearances of personality are evidently very different from perceptual appearances of instantiations of low-level properties, such as color and shape. It may be thought that we simply do not have any genuine *perceptual* appearances of personality but only epistemic appearances. I think this thought is mistaken. In previous work I have argued that unlike an epistemic seeming that *p*, a perceptual seeming that *p* is consistent with a high credence, or degree of belief, that not-*p* (Brogaard, 2013b). For example, on the basis of reading about pre-election polls, it may come to epistemically seem to me that the democratic candidate will win. This sort of seeming is accompanied by at least some degree of belief that the democratic candidate will win. Had I believed that the democratic candidate would not win, it would not have epistemically seemed to me that she would. By contrast, it can perceptually seem to me that *p*, even when I know that not-*p*. For example, it can perceptually seem to me that the two lines in the Müller-Lyer Illusion have different lengths even when I know that they do not (**Fig. 1**).

Figure 1 - The Müller-Lyer Illusion. Even when you learn that the line segments on the left have the same length, they continue to appear as if they have different length.

At least some appearances of personality are like the appearance in case of the Müller-Lyer Illusion. It can appear to me that a person is agreeable even if I have been told by a reliable source that she is highly disagreeable. Suppose a new colleague succeeds in behaving as if she is friendly and cooperative for a while, not yet showing her true colors. Owing to the fact that you are close friends with some of her former colleagues, you happen to know that she is not friendly or cooperative at all. Despite your knowledge that your new colleague isn't what she pretends to be, she may perceptually appear to be that way, at least for the time being.[2] This sort of appearance is evidently not epistemic. Like the appearance of the lines being unequal in length in the Muller-Lyer illusion, your appearance in the envisaged case persists despite your evidence indicating that it is inaccurate. Appearances of this kind thus have the marks of more common kinds of perceptual appearances. They are perceptual rather than epistemic insofar as they persist in the face of evidence that they are inaccurate.

Even if there are perceptual appearances of personality in some sense, however, it may be thought that they differ drastically from standard perceptual appearances. If you look at a red square, it is reasonable to think that that normally would lead to the perceptual appearance that represents the properties of being red and being square. If you look at a person in a social situation entertaining a lot of people, on the other hand, it may be doubted that the perceptual appearance that this observation gives rise to can represent high-level properties such as *being sociable* and *being extraverted*.[3]

Another way to cash out this potential difference between appearances of personality and appearances of less complex phenomena is in terms of the degree to which these appearances can justify beliefs to which they give rise. One might argue that a perceptual appearance of a red square confers immediate justification on the belief that the square is red, whereas the perceptual appearance normally generated by the observation of a person being sociable confers justification on the belief that the person is sociable only given various background information about how sociability is manifested in different circumstances.

The case of personality appears to be analogous to the case of moral seemings. It may be argued that an appearance of a person setting a cat on fire can confer justification on the belief that the person is wrongfully harming the cat only given background information to the effect that burning a cat wrongfully harms it (Chudnoff, forthcoming b; for a contrasting perspective see

[2] Of course, there could also be mixed cases. Your colleague might look friendly but sound unfriendly (the tone of her voice giving her unfriendliness away). In the envisaged case, however, I am assuming that your present perceptual sources of information jointly point toward your colleague having a friendly personality, despite your knowledge to the contrary.

[3] One clear difference between redness and sociability is that redness is a proper sensible (colors ordinarily can only be seen), whereas being sociable is a common sensible (there are many ways of detecting sociability). Whether this difference can ground an argument against seemings representing high-level properties, such as sociability, is an interesting question but one I will set aside here.

e.g. McGrath, 2004; Audi, 2013; Werner, forthcoming). If this so, then the case of personality would provide reason against a generalized version of phenomenal dogmatism.

Elijah Chudnoff has indeed suggested restricting phenomenal dogmatism to those cases in which seemings have presentational character. As he puts it:

> One principled way to restrict phenomenal conservatism, then, is to restrict it to those propositions with respect to which seemings have presentational character: whenever it seems to you that p and your seeming has presentational character with respect to p, then you thereby have at least prima facie justification for believing that p. If it seems to you that p and your seeming lacks presentational character with respect to p, you still might have prima facie justification for believing that p, but, as the cognitive penetration cases suggest, it will depend in part on background information (Chudnoff 2014; cf. Chudnoff 2013, p. 90, p. 94; Chudnoff, forthcoming b).

To a first approximation, seemings have presentational character only when their accuracy conditions 'include both p and awareness of a truth-maker for p' (Chudnoff, Forthcoming b). Consider the following case of amodal completion (**Fig. 2**):

Figure 2: The dog is partially occluded by the cage. Your experience makes you visually aware of the proposition that the dog is in the cage. While your experience of a dog has presentational phenomenology, your experience that the occluded parts are parts of a dog does not.

Your visual experience represents that the dog in the cage and its parts. But while the visual experience of the dog in the cage makes you aware of the dog in the case, it does not make you aware that the occluded parts of the dog continue in one direction rather than another. In this case, then, you are not immediately justified in holding any beliefs about the occluded parts of the dog, according to Chudnoff. You are justified in holding beliefs about those parts only given background information about occluded objects.

Perceptual appearances do not generally seem to make you aware of high-level properties. For example, watching someone set a cat on fire does not by itself make us visually aware of the truth-maker complex for the proposition that the cat is being wrongfully harmed. Awareness of the truth-maker for the latter proposition depends on background knowledge of the fact that burning a cat is prima facie harmful to the cat. So, the phenomenology of the appearance of the cat being set on fire does not confer immediately justification on the belief that the cat is being wrongfully harmed. On Chudnoff's view, then, this latter belief is justified by the appearance only in conjunction with background knowledge that burning a cat is prima facie harmful to the cat.

It might be thought that one could liken occluded-whole cases to moral perception and personality cases and come to a different result. For example, it may be suggested that you can *see* the whole wrongness of a burning even if you cannot *see* that the burning is prima facie wrongfully harmful just as you can see the whole dog even if not the occluded parts. This sort of suggestion seems highly plausible with respect to some high-level properties, for instance, basic emotional properties and their characteristic facial expressions. It is plausible, for example, that you can see that a person is sad even though you obviously cannot *perceptually see* the general principle that a sad face is a prima facie indicator of sadness. Here it may be thought that the background information to the effect that a facial look prima facie indicates a particular basic emotion is available to our perceptual system not as a result of learning but rather as a result of evolution or maturation (Widen, 2013).

One worry about this suggestion when applied to the moral case, though, is that it is far from clear that the property of being harmful is something the phenomenology of visual experience can cause to pop out as an object of simple demonstration. For one, it is not clear what the property of being harmful would look like perceptually. For another, if the truthmaker for the proposition that the cat is being wrongfully harmed is composed of the act of setting the cat on fire and the general principle that burning is prima facie harmful, then we are only perceptually aware of the burning. But this is hardly sufficient for making us aware of the fact that the cat is being wrongfully harmed. It seems plausible, then, that beliefs about what is wrongfully harmful cannot be justified on the basis of perception alone.

A consequence of this sort of view seems to be that whereas perceptual appearances can confer immediate justification on beliefs that represent low-level properties (e.g., the belief that the patch is blue), they cannot for the most part confer immediate justification on beliefs that represent high-level properties (e.g., the belief that setting a cat on fire wrongfully harms the

cat). The latter class of beliefs are standardly justified by perceptual appearances only in conjunction with various background information.

While the thought that background information is sometimes needed for appearances to be immediate justifiers has a certain initial degree of plausibility, I don't think it's ultimately going to work for the case of personality. Whether it is applicable to other cases of high-level perceptual appearances need not concern us here. As I have already argued, there are cases in which people appear one way, even when we know that they are not the way they appear. That is, personality are often represented in an evidence-insensitive way. This strongly indicates that there are genuine *perceptual* appearances of personality traits. If, however, appearances of personality have contents that do not contain personality traits and that therefore justify beliefs about personality only in conjunction with background information, then it is strictly false that there are perceptual appearances of *personality*. Take the property of being sociable. If this property does not occur in the content of any genuine *perceptual* appearances, then there aren't any genuine perceptual appearances of people being sociable. There may be perceptual appearances of people talking to others at social gatherings, but that would not strictly speaking be an appearance of a person being sociable. So, it seems that we cannot have it both ways. If indeed there are genuine perceptual appearances of personality traits, as we have some reason to believe, then these appearances must have contents that contain personality traits and they must further have the epistemic property of conferring immediate justification upon beliefs in the absence of further background information. I should note here that I do not deny that there may be cases in which something can be a content of a perceptual appearance but not immediately justified by the appearance because it is not perceptually represented with presentational phenomenology but only that in the case of personality, the lack of a presentational phenomenology does not stand in the way of perceptual representations of personality being immediate justifiers. What makes perceptual representations immediate justifiers without a presentational phenomenology is their status as *perceptual* representations. Unlike *epistemic* representations, they can occur together with disbeliefs in their contents. It is thus not the presentational phenomenology of an appearance that makes it an immediate justifier of belief but its psychological independence of disbeliefs in its content.

The question here arises what role background information plays in perceptual appearances of personality. Here is one suggestion. Some perceptual appearances are evidently more high-level than others.[4] Perceptual appearances of configurations of low-level properties of people in a social situation are not as high-level as perceptual appearances representing high-level properties such as being a person, entertaining others and being at a social gathering. And the latter types of appearances are not as high-level as perceptual appearances with contents containing personality traits, such as being extraverted or neurotic, as components. High-level perceptual appearances, as I envisage them, are capable of

[4] I take it that the perceptual appearances we commonly take to be visual experiences are fairly low-level. To say that they are fairly low-level does not entail that they cannot represent high-level properties, as long as the ability to perceive those high-level properties is a result of evolution or brain maturation. See Brogaard and Chomanski (forthcoming).

representing high-level properties, such as the being sociable or friendly. Their being high-level does not rule out that they are perceptual rather than epistemic for the reasons outlined above, viz. that having an appearance that *p* is rationally consistent with having a belief that not-*p*. Having a perceptual appearance that someone is extraverted, for example, is rationally consistent with believing on independent grounds that the person is introverted.

How does background information figure into this? Consider a case of a perceptual appearance of a tomato. A perceptual appearance of a tomato represents the instantiation of the property of being a tomato. When the appearance is accurate, you literally see a tomato. But despite lacking presentational phenomenology, the backside and occluded parts of the tomato are among the elements that the appearance represents. So, an appearance of a tomato is based on a more primitive appearance that does not represent the backside or any occluded parts of the tomato. Unlike the more primitive perceptual appearance, the perceptual appearance of the tomato thus rests in part on background information to the effect that we don't live in a world occupied by tomato facades without a backside. In generating a perceptual appearance of a tomato (as opposed to a tomato facade) we thus rely on background information about what the world is like.

The basing relation here need not be a *personal-level* inferential relation. Likewise, background information here should not be understood simply as including only personal-level information conveyed by our belief system but also as including information encoded in the sensory systems as a result of evolution and maturation of neural systems in the brain, for example the maturation of the sensory systems. If we had grown up in a world populated by tomato facades, we might not have had the capacity to generate perceptual appearances of tomatoes.[5]

To see how the maturation of the visual system may affect our perceptual appearances, consider a case of tilted bracelet (see **Fig. 3**). The sensory stimulus that reaches the retina does not by itself provide information about the intrinsic shape of the bracelet. The retinal information represents the tilted bracelet as oval-shaped. But our visual system makes use of cues about the scene to determine that the bracelet is tilted and circular-shaped rather than untilted and oval-shaped.

[5] The background information thus need not be a matter of background beliefs but could be encoded in our sensory systems, rather than being a matter of background beliefs. This view is thus consistent with the claim that low-level and mid-level perception is not cognitively penetrable

Figure 3: Tilted bracelet. The bracelet is represented as having oval cross-sections from the perceiver's point of view. But it is also represented as being at an angle and as being circular.

One of the processes that can help us acquire relevant background information is perceptual learning. Consider the case of expert chess players. Whereas novices are only able to encode the position of the individual chess pieces in long-term memory, expert chess players encode chess configurations. The basic unit encoded in long-term memory is the 'chunk', which consists of a configuration of pieces that are frequently encountered together and that are related by type, color, role, and position (Chase and Simon, 1973a, 1973b). The number of figurations that the expert player have stored in long-term memory can be as high as 300,000 (Gobet & Simon, 2000). The chunks can also be encoded in a combined form known as 'templates' (Gobet & Simon, 1996).

Studies using eye-movement measurements have demonstrated that retrieval of chess configurations in experts correlate with holistic fixation on the pieces on the chess board and a widened (de Groot and Gobet, 1996) and increase in visual span (Reingold, Charness, Pomplun, and Stampe, 2001). These studies suggest that there is a difference, not simply in the cognitive abilities of chess experts and chess novices, but in their perceptual appearances.

Reingold et al. (2001) carried out a study that further suggests that part of the enhanced skill-set of expert chess players is perceptual. A minimized 5x5 chessboard was displayed to novice, intermediate and expert chess players. In the first part of the study configurations fell into two types: (i) figurations with two or three pieces in a checking setup (e.g., the bishop in one corner and the king in the diagonal corner). This is the 'yes' condition. (ii) Configurations with two or three pieces in a non-checking setup (e.g., the rook in one corner and the king in the diagonal corner). This is the 'no' condition. In the second part of the study, only the two attacker positions

(e.g., the bishop/rook and the king) from the first part were used, and doublecheck positions were added to create four possible combinations of checking for both attackers (i.e., yes/yes, yes/no, no/yes, and no/no). The non-checking configuration was congruent condition, whereas the checking configuration is the incongruent condition. On half of the trials, one of the attackers was colored red as a cue (e.g., the rook) (**Fig. 4**).

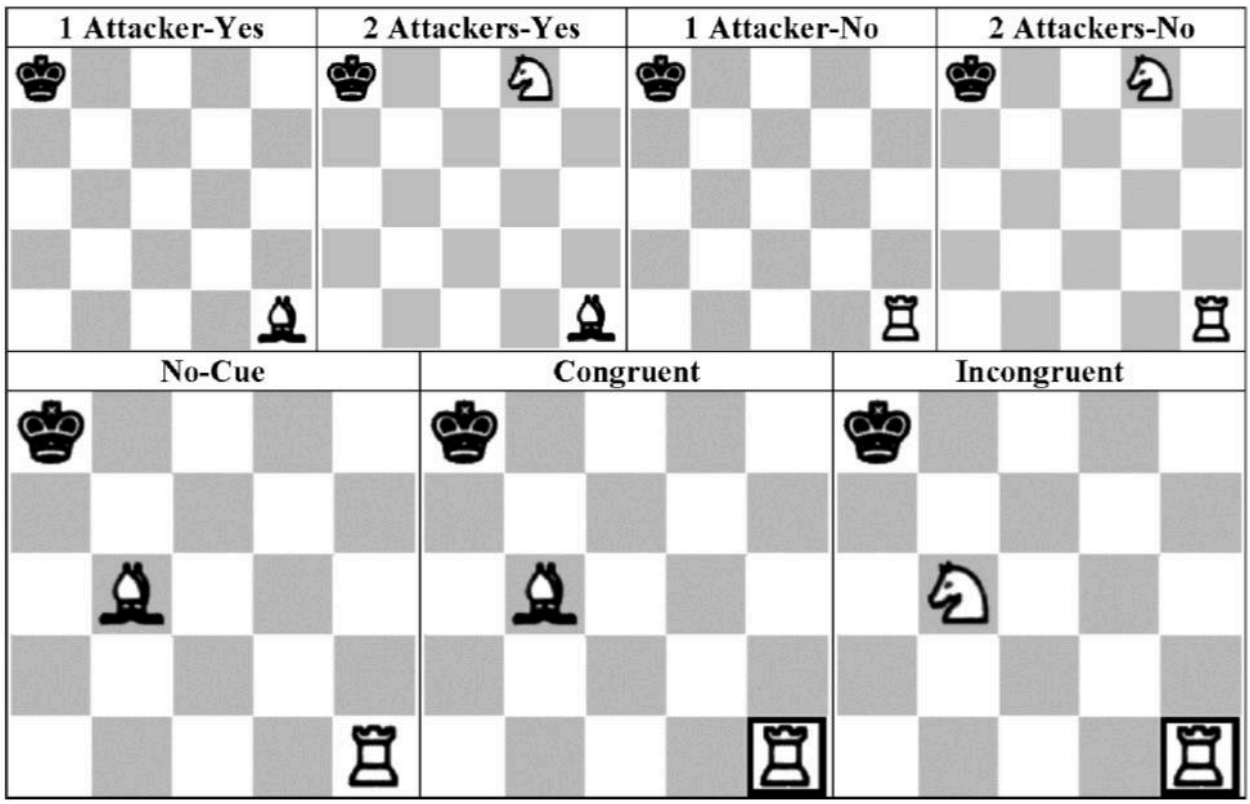

Figure 4. Examples of the check configurations The top row demonstrates 'yes' (check) versus 'no' (non-check) conditions with two or three pieces The bottom row illustrates the no-cue condition ('no' trials) and conditions in which a cued non-checking attacker appeared together with an attacker that was either congruent (i.e., non-checking) or incongruent (i.e., checking). From Reingold et al. (2001)

In the first part of the study, the players were told to determine as quickly and accurately as they could whether or not the black king was in check. Here the results showed that novices and intermediate players responded more slowly when there were two attackers (three pieces) than one attacker, whereas the extra piece didn't affect expert players. This indicates holistic processing for experts but non-holistic processing for novices and intermediate players, who would need to evaluate each chess piece in a serial fashion. The results support the claim that the enhanced skill set of expert chess players is a result of acquiring new perceptual abilities, viz. abilities to process chess configurations as units.

In the second part of the study, the participants were instructed to proceed as before if there was no cue but if a cue was present they should ignore the non-colored attacker. If processing

of chess relations is serial (piece by piece), cuing should improve performance, as compared to the no-cue condition, because the player wouldn't need to examine the non-cued checking relation. If, on the other hand, the processing of the chess relations is parallel (holistic), cuing should not improve performance. The results showed that cueing helped novices and intermediate players but didn't help experts, suggesting that unlike non-experts, experts process the chess configurations holistically rather than piece by piece.

The results furthermore revealed that experts were faster in the congruent (non-checking) versus the incongruent (checking) condition, when a cue was present. A plausible explanation of this surprising result is that a Stroop-like interference is generated because the incongruent (check) relation that is supposed to be ignored grabs the expert's attention.

In the standard Stroop-test, subjects are asked to name the ink color of a series of color words as fast as they can in two conditions (Stroop, 1935; C. M. MacLeod, 2005). In the experimental condition color words are printed in an incongruent ink color. For example, the color word 'red' is printed in green' and the color word 'blue' is printed in yellow'. In the control condition, the color words are printed in black or a congruent color. For example, 'red' is printed in black or red. Studies consistently show that subjects name the ink color of color words printed in incongruent colors significant faster than the ink color of color words printed in congruent colors. The main explanation for this is that the meaning of the color words divert the subjects' attention away from the task they are supposed to engage in. Stroop-like tasks have been created to test for a diversion of attention in subjects with depression (C. MacLeod, 2005), an addiction to drugs or alcohol (Cox, et al), an eating disorder (Pringle, et al. 2010) and suicidal tendencies (Cha et al., 2010).

Stroop-like interferences is the result of recurring thoughts affecting what we pay attention to when we perceive the world. As Stroop-like interferences affect perceptual processing, the presence of Stroop-like interferences in expert chess players indicates that the enhanced skill set of expert chess players is a result of acquiring new perceptual abilities, viz. abilities to perceive chess configurations holistically. Recognizing chess configurations is thus unlike standard cases of object recognition and much more similar to the case of face perception, which also proceeds holistically (Richler, et al. 2011).

The case of perceiving chess configurations sheds light on the difference between low-level and high-level perceptual appearances. In the case of low-level perceptual appearances of complex phenomena, the scene is presented piecemeal. In the case of genuine high-level perceptual appearances, by contrast, groups or chunks composed of several smaller structured units are themselves processed holistically as units.

Returning now to the case of personality, when trying to make sense of social situations and the behaviors of others we rely extensively on background information about how people with particular personality traits are likely to behave in particular situations. For example, an extraverted person is unlikely to be sitting in a corner by herself at a social gathering. A

conscientious person is unlikely to walk into a store and impulsively purchase an expensive item. Without background information about what extraversion looks like, we would be unable to attribute this trait to a person who exhibits the marks of an extravert.[6] Perceptual appearances of personality are based on this sort of background information in conjunction with low-level processing of the behavior of others. The idea here is that genuine perceptual appearances of personality represent personality traits as holistic configurations of personality markers that reveal themselves in the appearance.

The case for high-level perceptual appearances that represent simple unified personality traits come from thin-slicing cases in which we quickly form rather accurate appearances of personality on the basis of little exposure. These kinds of cases suggest that once we have acquired an expert ability to perceive the personality of others at the time at which we reach maturity, we do not perform slow, inferential processes when attributing personality traits. Rather, we process the behaviors of others holistically, and the personality traits pop out as configurations of personality markers.

To recapitulate: our perceptual appearances of the low-level features of people's behavior do not immediately justify our beliefs about personality. Background information about how people with particular personality traits are likely to behave in particular situations helps generate high-level perceptual appearances of personality, which in turn confer immediate justification on our beliefs about personality.

3. Accuracy in Thin-Slicing Conditions

Appearances of personality often occur in zero-acquaintance conditions, conditions in which we are unacquainted with the subject, don't have a chance to interact with them and only have a chance to observe them for a few seconds (Albright, et al, 1988; Marcus, et al, 2006; Vazire & Gosling, 2004). Studies show that under these conditions, our perceptual appearances of personality--primarily visual appearances--are based exclusively on physical appearance such as facial expression, posture, clothing and attractiveness (Watson, 1989; Ambady & Rosenthal, 1992; Borkenau & Liebler, 1992; Kenny, et al, 1992; Paulhus & Bruce, 1992; Funder & Sneed, 1993; Levesque & Kenny, 1993; Albright et al., 1997; Carney, et al, 2007; Yeagley, et al., 2007; Hall, et al, 2008). Albright, et al. (1988), for example, asked research participants to rate people in the zero acquaintance condition on the following five factors: sociable (extraversion), good-natured (agreeableness), responsible (conscientiousness), calm (emotional stability), and intellectual (culture). The researchers found that appearances of how sociable a person was strongly correlated with appearances of attractiveness, whereas appearances of how

[6] This kind of information may seem to be a matter of background beliefs but it need not be. Just as brain maturation may lead to information about occluded parts of objects to be included in our sensory systems, it could also lead to information about personality traits being included in our sensory systems. This may be more plausible for facets like friendliness and empathy than for entire dimensions of personality such as extraversion and conscientiousness.

responsible a person was strongly correlated with appearances of how well-dressed the person was. The researchers further found that large-scale consensus among perceivers with respect to these two traits.

Despite the consensus among perceivers with respect to appearances in zero-acquaintance conditions, it may be thought that the appearances people form in these conditions are highly inaccurate. This, however, is not so. Thin-slicing turns out to be amazingly accurate for very many traits. Naumann et al (2009), for example, carried out a study in which research participants were exposed to full posture photographs in two conditions, one in which the photographed subjects had a neutral posture and facial expression (standardized condition) and another in which facial expression and posture were spontaneous (spontaneous condition). The personalities of the people in the photographs were identified through post self-reporting and reporting by acquaintances. Accuracy was determined on the basis of a comparison to self-reported personality tests, and significant accuracy was calculated on the basis of results found in other studies of accuracy in zero-acquaintance conditions. The researchers found that in the standardized condition, the research participants were accurate for extraversion, emotional stability, openness, self-esteem, and religiosity. In the spontaneous condition the participants perceived nine out of ten traits with a significant degree of accuracy. What is particularly impressive about the high degree of accuracy is that there was no face-to-face interaction with the people in the photographs and hence only some degree of non-verbal cues.

One reason for the high accuracy of thin-slicing observations likely turns on the rich information conveyed by physical appearance and the fact that this information reliability tracks people's personality traits. Type of clothing, hairstyle and personal grooming convey information about people's conscientiousness (Albright et al., 1988; Borkenau & Liebler, 1992), and facial expression and posture convey information about extraversion (Kenny et al., 1992). A lot of this information is conveyed even in still photographs, because expressive behavior often leaves marks on people's faces (e.g., laugh lines and frown lines, Malatesta, et al, 1987). Neumann et al (2009), for example, found that in still photographs the most valid cues of extraversion were having an energetic stance, looking stylish and healthy, and smiling.

The accuracy of perceptual appearances of personality is likely to increase in ecologically valid settings, such as conditions that involve active face-to-face interaction. Still photographs provide only visual information. Active face-to-face interactions typically provide us with auditory (e.g., pace of speech, conversational meaning and discourse markers), tactile (e.g. the firmness of a handshake) and olfactory cues (e.g., a scent of perfume or a smell of unwashed hair).

An important question here, though, is why appearances of personality track reality fairly well. It is unsurprising that personality traits can leave marks on people's faces, postures, choice of hairstyle and clothing, level of grooming but many other personality markers could not plausibly be result of personality (**Fig. 5**). For example, prominent cheekbones and high eyebrows is an indicator of trustworthiness (Olivola, et al. 2014) but the shape of cheekbones and height of eyebrows presumably is primarily genetically determined. So, how do we explain the fairly high

accuracy of appearances of personality? I think the most plausible explanation is that the causal relation is reversed. Untrustworthiness does not cause prominent cheekbones and high eyebrows. Rather, features indicating untrustworthiness may well be shaping people's personality in childhood, adolescence and young adults.

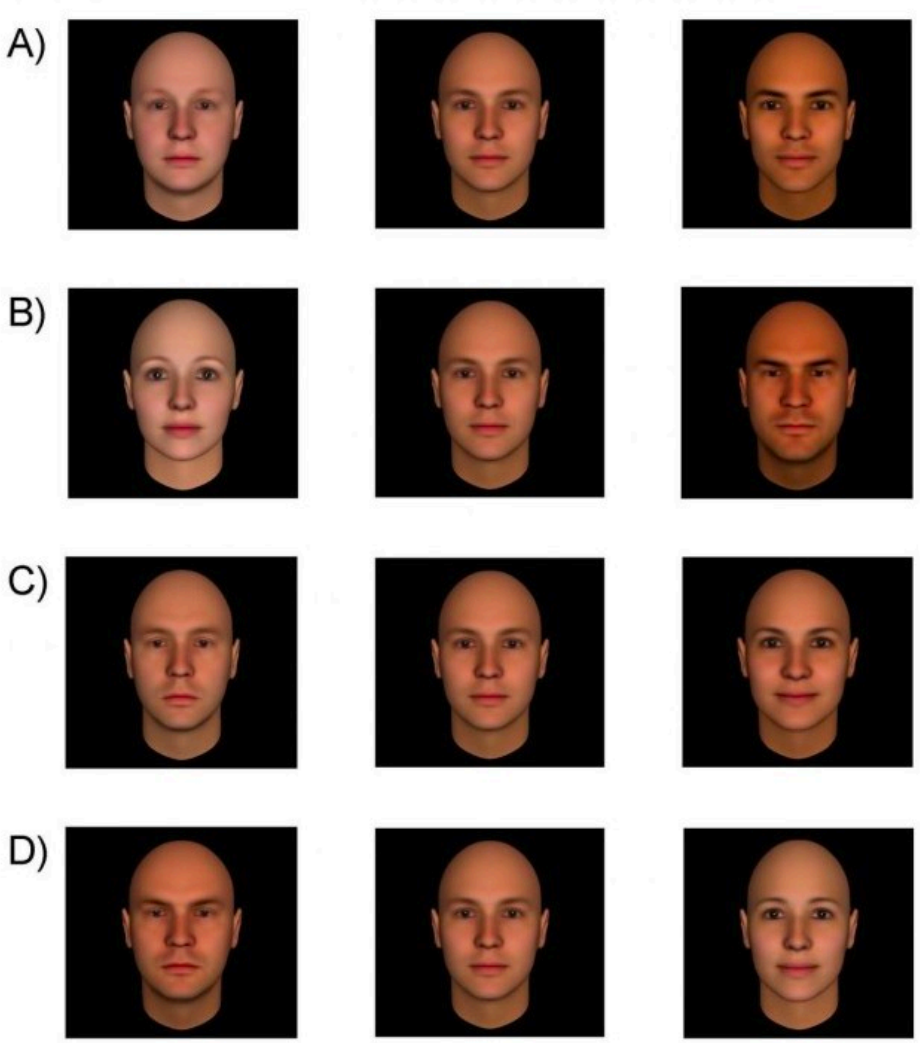

Figure 5. Illustration of how we rate faces on the following four factors: (A) competence, (B) dominance, (C) extroversion, and (D) trustworthiness. The faces are presented from lowest scores on the left to highest scores on the right. From Olivola, et al. 2014

4. Personality Disorders and Perceiver Effects

Although perceptual appearances of personality generally are fairly accurate, there are many conditions that can subtract from their accuracy. Numerous personality disorders are partly defined by how the sufferers perceive other people. Some examples: Narcissistic personality

disorder is defined in part by a tendency to view other people are inferior, worthless or uninteresting (Beck et al., 2004; Harms, et al., 2010). Misogyny is defined in part by a consistent negative evaluation of women. Antisocial behavior may be grounded in part in a tendency to perceive others as hostile and threatening (Dodge & Crick, 1990; Raine, 2008). And paranoid personality disorder typically originates in a tendency to more readily perceive others as malevolent and threatening (Dodge & Crick, 1990; Raine, 2008).

But even people without personality disorders tend to rate people differently depending on their own personality. Two such correlations have been found. The first is also known as a similarity bias or projection bias. This is a tendency to form more accurate perceptual experiences of people who are similar to ourselves. This happens when people project their own personality onto others, which then results in high accuracy if the target has a similar personality.

The second correlation between raters' personality and their ratings is commonly referred to as the 'perceiver effect' (Kenny, 1994; Wood, et al. 2010). This correlation is not simply the projection of our own personality onto other people but rather a result of our tendency to perceive others in a certain light, depending on our personality. For example, agreeable individuals have been found to rate others more positively than non-agreeable people across a number of different dimensions (Wood, et al, et al. 2010). Agreeable individuals generally perceive others as nicer, more interesting, more trustworthy, happier, more stable and more extraverted than non-agreeable people do (Graziano & Tobin, 2002). They also tend to exhibit a lower level of prejudice towards a vast number of groups with respect to which less agreeable raters hold implicit biases (Graziano, et al., 2007)

This raises the question of the extent to which differences in perceptual appearances of personality, originating in personality disorders or perceiver effects, undermine phenomenal dogmatism. Although even thin-slicing is rather accurate across groups, it may be thought that the aforementioned differences in the accuracy of perceptual appearances of personality undermine the possibility that they can confer immediate justification on personality judgments. There is, however, reason to think that perceptual appearances of personality are no worse suited for justifying the beliefs they give rise to than their low-level counterparts. Consider a case in which you unbeknownst to Bob slip a drug into his drink that makes him see colors on a shifted spectrum. Red things are seen as orange, orange things as yellow, yellow things as green, and so on. Because Bob doesn't know that he has been drugged, he may not realize that his perceived colors are off. So, when looking at a yellow Golden Delicious apple, he comes to believe that it is green. In this scenario, phenomenal dogmatism predicts that Bob's perceptual belief that the apple is green is immediately justified by his perceptual appearance of the apple as green. Although the justification is only prima facie, Bob does not have a defeater in the envisaged scenario. So, his belief is justified.

Now imagine that Rob is born with a brain abnormality that radically shifts the way he perceives colors. Rob is in all relevant respects like Bob. When looking at a firetruck, he perceives it as orange. When looking at a yellow Golden Delicious Apple, he perceives it as green. And when

looking at a Granny Smith, he perceives it as blue. Like Bob, Rob doesn't know that he has a brain abnormality. Nor is he likely to discover that he has a deviant color processing system, as he grew up using the color vocabulary in the same way as people without the deficiency. He refers to firetrucks as red, Golden Delicious apples as yellow and Granny Smiths as green. When asked to pick out sort an assortment of Golden Delicious and Granny Smith apples into yellow and green, he correctly places the Golden Delicious apples in bucket labeled 'yellow' and the Granny Smiths in the bucket labeled 'green'. The difference between Rob and neurotypical individuals is that whereas neurotypical individuals employ color terms that correspond to their perceptual color concepts, there is a discrepancy between Rob's color vocabulary and his perceptual color concepts. Phenomenal dogmatism makes the same predictions with respect to Bob and Rob. It predicts that Rob's perceptually based belief that the Golden Delicious apple is green is immediately justified by his perceptual appearance that the apple is green. Although the justification for his belief is prima facie, Rob does not possess a defeater in the envisaged scenario. So, his perceptually based belief that the apple is green is justified.

Individuals with personality disorders that involve distorted perceptual appearances are not unlike people in Rob's situation. They deviate from neurotypical individuals in the way they process perceptual information about people's personality. A narcissist who comes to believe that his colleagues are inferior to himself on the basis of his perceptual appearance of them as inferior has prima facie justification for his belief. Because the justification is only prima facie, it can be undermined by defeaters. Individuals with personality disorders sometimes realize that they suffer from the condition but are nonetheless still unable to change their faulty cognitive processes. Because individuals in this scenario know about their condition they possess a defeater, so in spite of the fact that their perceptual appearances confer prima facie justification on their judgments, their judgments are not ultima facie justified. Afflicted individuals who fail to recognize that they suffer from a personality disorder, on the other hand, are justified in their faulty beliefs about the personality of others because they lack a defeater.

Similar remarks apply to individuals who are subject to perceiver effects. If you tend to perceive people more positively then the average population but fail to realize this, you have prima facie justification for beliefs based on your appearance. Provided that you lack a defeater of your justification, your judgment is justified.

5. Personality Breaks and Moral Holidays

Cases of individuals with personality disorders and those subject to perceiver effects are atypical but no more problematic than cases of people suffering from unrecognized perceptual distortions.

There is, however, another worry in the vicinity. One may worry that perceptual appearances that appear to be appearances of personality track something other than personality. Suppose you act freely and sincerely, but out of character. For example, you go on a 'moral holiday' and

kill someone, or you are led to do magnanimous deeds out of a temporary conversion to utilitarianism. It may be argued that a so-called perceptual appearance of character based on this type of behavior would be getting at something other than character. Likewise we can imagine that someone who is highly disagreeable has an off-day and appears friendly in a particular group setting. Here, too, one might argue that perceptual appearances that reveal the friendly attitude of the holiday-taker would be getting at something other than personality.

This sort of objection, however, seems to rest on a too sharp distinction between behavior and traits. Even behavior that appears to be out of character is very often grounded in our dispositions. If you on one rare occasion were to kill someone or do a magnanimous deed as a matter of pure chance, your behavior would not be grounded in dispositions to commit murder or to do magnanimous deeds.[7] But we are not dealing here with a case in which the act in question is accidental and therefore would be entirely neutral with respect to your personality. Rather, we are dealing with a case in which very special circumstances conspire to bring together an odd combination of dispositions which lead you to kill someone. Your act seems to be out of character; but it is nonetheless not accidental; it is to some degree reflective of your dispositions. The same goes for non-moral personality traits. Suppose you have no intentions or dispositions to behave friendly in a given situation. In fact, you are mischievously scheming to cause tension between two friends by conveying gossip about one person to the other. As happens to be the case, however, the gossip ends up strengthening the two people's friendship, and they end up viewing you as a 'good guy' on the basis of the incident. In this case, your good-guy behavior isn't grounded in your dispositions. But in cases where you behavior appears to be out of character but still is not accidental, we can safely take it to be reflective to some degree of your dispositions.

The mistake underlying the thought that moral holiday and personality break behavior isn't grounded in dispositions is to think that in order for behavior to be grounded in character or personality traits, there must be a disposition precisely tailored to behavior that is consistent under all circumstances. This, of course, is not so. You could be behaving impeccably nearly all the time yet be disposed to commit murder in highly specific circumstances that are unlikely to ever arise. Likewise, you could be generally disagreeable yet be disposed to behave friendly and agreeable in circumstances that are so unusual that you will probably never be in them. What this shows is that an act of, say, committing murder or being friendly can reflect an agent's personality even if the disposition which makes it so would not have led to that act under a broad enough range of alternative conditions. This, of course, also suggests that thin-slicing observations of people may not always give us the full picture of people's personality. Highly reliable perceptual insight into the personality of others would requires observing them under a broad enough range of circumstances.

[7] According to situationists, people don't actually have stable character traits (see e.g. Doris, 2002). Even if they are right, one could still hold that there are personality signatures that disposes one to act in a certain way in certain circumstances (see Rainton, 2011).

7. Conclusion

I have argued that there are three main prima facie reasons for thinking that perceptual appearances of personality cannot confer prima facie justification on our judgments about personality. First, it may seem that perceptual appearances of personality only reveal low-level features about people's behavior rather than personality traits as such. If this is the case, then perceptual appearances of personality do not by themselves justify our judgments of personality. They would only justify these beliefs in conjunction with background information that reveals what different personality traits are supposed to look like in different situations. Second, it may seem that our perceptual appearances are too inaccurate to be the kinds of things that can confer prima facie justification on our beliefs about personality. If they are massively inaccurate, then they wouldn't be able to play the function of immediate justifier of belief. Third, there are cases of personality disorders that are partially defined in terms of a misperception of the personality of others. It might seem that the beliefs that people with these conditions hold about other people's personality would not be justified by their misperceptions. Something similar applies in cases of perceiver effects. Perceiver effect cases are cases in which neurotypical people's positive or negative attitude towards reality affects their appearances of the behavior of others. Here, too, it may seem that we shouldn't take their mistaken beliefs to be justified by their inaccurate perceptual appearances.

I have argued, however, that none of these cases undermines the idea that perceptual appearances of personality can confer prima facie justification on our judgments about personality. First, while I agree that perceptual appearances of the low-level properties of people's behavior cannot by themselves immediately justify beliefs about personality, there is reason to think that perceptual appearances of personality are high-level states that represent personality traits as simple units, and that these appearances do confer prima facie justification on our beliefs. Second, it turns out that our appearances of personality even in zero-acquaintance conditions while observing people for brief periods of time are rather accurate on average. Even though we make mistakes along the way, we are not massively deceived by people's behavior and looks. So, the mistakes we make when observing people do not undermine the idea that appearances of personality can shed prima facie justification on our judgments about personality. Lastly, while it is true that psychological disorders and perceptual effect cases can lead to radical errors in personality judgments that are based on inaccurate appearances, these cases are not substantially different from cases in which we are misled by illusory appearances of instantiations of low-level properties. The case of personality thus does not threaten to undermine the thesis that perceptual appearances can confer prima facie justification on the beliefs to which they give rise.

These conclusions raise some interesting questions for future exploration. I have argued that our (often rash) personality judgments are prima facie epistemically justified. Yet our judgment of personality has an enormous influence on important life decisions: whether people are sentenced in court, how people rank in the military, whether people rise to the top in the private industry, for example, depend in part on what sort of personality we judge that they have. Olivola

et al. (2014) have recently argued that we should be wary of basing important decisions on judgment of personality because we are often mistaken. I have argued, however, that a significant number of our judgments of personality are accurate. If indeed they are fairly accurate, particularly in real-life situations, then it seems reasonable to attempt to let judgments of personality influence important life decisions. However, there may be reason for caution. As I have argued above, although some personality markers (e.g., frown lines and laugh lines) can be caused by people acting on their personality traits, in many other cases the causal direction is reversed. People become who they are, because they possess features people in their environment already associate with certain personality traits. If this is the case, the greatest opportunity we have for intervening is in children, adolescents and young adults whose personalities are still undergoing radical changes as a result of maturation. Not treating a child who is born with a facial structure that we associate with dishonesty as dishonest, for example, may make the difference between whether the child starts behaving in accordance with how she looks.[8]

References

Albright, L., Kenny, D. A., & Malloy, T. E. (1988). Consensus in personality judgments at zero acquaintance. *Journal of Personality and Social Psychology*, 55(3), 387–395.

Ambady, N., & Rosenthal, R. (1993). Half a minute – Predicting teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal of Personality and Social Psychology*, 64(3), 431–441.

Audi, R. (2013). *Moral perception*. Princeton University Press.

Borkenau, P., & Liebler, A. (1992). Trait inferences: Sources of validity at zero acquaintance. *Journal of Personality and Social Psychology*, 62(4), 645–657

Brogaard, B. (2013a) "Phenomenal Seemings and Sensible Dogmatism", In C. Tucker, ed. Seemings and Justification, New York: Oxford University Press, 2013, 270-289.

Brogaard, B. (2013b). "It's not what it seems. A semantic account of 'seems' and seemings" Inquiry 56/2-3, 210-239.

Brogaard, B. (forthcoming). "Staying Indoors: How Phenomenal Dogmatism Solves the Skeptical Problem Without Going Externalist", in M. Bergmann, ed., Internalism, Oxford University Press.

[8] I am grateful to Elijah Chudnoff, Brian McLaughlin and audiences at Florida International University and University at Buffalo for helpful comments on a previous version of this paper.

Brogaard, B. and Chomanski, B. "Cognitive Penetrability and High-Level Properties in Perception: Unrelated Phenomena?", forthcoming in a special issue of *Pacific Philosophical Quarterly*, edited by Jack Lyons and Indrek Reiland.

Carney, D. R., Colvin, C. R., & Hall, J. A. (2007). A Thin Slice Perspective on the Accuracy of First Impressions. *Journal of Research in Personality*, 41, 1054-1072.

Cha CB, Najmi S, Park JM, Finn CT, Nock MK.(2010) “Attentional bias toward suicide-related stimuli predicts suicidal behavior,” *Journal of Abnormal Psychology*, 119, 616-622.

Chase, W. G., & Simon, H. A. (1973a). “The Mind’s Eye in Chess.” In W. G. Chase (Ed.), Visual information processing (pp. 215-281). New York: Academic Press.

Chase, W. G., & Simon, H. A. (1973b). “Perception in Chess,” Cognitive Psychology, 4, 55-81.

Chudnoff, E. (2013). *Intuition*, Oxford: Oxford University Press.

Chudnoff, E. (2014). Review of Tucker (eds.) *Seemings and Justification*, *Notre Dame Philosophical Reviews*.

Chudnoff, E. (Forthcoming). “Intuition, Presentational Phenomenology, and Awareness of Abstract Objects", *Florida Philosophical Review*.

Chudnoff, E. (Forthcoming b). “Moral Perception: High Level Perception or Low Level Intuition?” In Breyer and Gutland (eds.), *Phenomenology of Thinking*. Routledge.

Cox, WM, Fadardi, JS, Pothos, EM (2006). “The Addiction-Stroop Test: Theoretical Considerations and Procedural Recommendations,” *Psychological Bulletin*, 132, 443-476.

de Groot, A. D., & Gobet, F. (1996). *Perception and Memory in Chess*. Assen, The Netherlands: Van Gorcum.

Doris, J.M. (2002). *Lack of Character: Personality and Moral Behavior*, Cambridge: Cambridge University Press.

Funder, D. C., & Sneed, C. D. (1993). “Behavioral Manifestations of Personality: An Ecological Approach to Judgmental Accuracy,” *Journal of Personality and Social Psychology*, 64, 479-490

Gobet, F., & Simon, H. A. (1996).”Templates in Chess Memory: A Mechanism for Recalling Several Boards,” *Cognitive Psychology*, 31, 1-40.

Gobet, F., & Simon, H. A. (2000). “Five Seconds or Sixty? Presentation Time in Expert Memory,” *Cognitive Science*, 24, 651-682.

Graziano WG, Bruce J, Sheese BE, Tobin RM. (2007). “Attraction, Personality, and Prejudice: Liking None of the People Most of the Time,” *J Pers Soc Psychol.*93(4):565-82.

Hall, J. A., Andrzejewski, S. A., Murphy, N. A., Mast, M. S., & Feinstein, B. A. (2008). “Accuracy of Judging Others’ Traits and States: Comparing Mean Levels Across Tests,” *Journal of Research in Personality*, 42, 1476-1489.

Kenny, D. A. (1994). *Interpersonal perception: A social relations analysis*. New York: Guilford.

Kenny, D. A., Horner, C., Kashy, D. A., & Chu, L. (1992). “Consensus at Zero-Acquaintance: Replication, Behavioral Cues, and Stability,” *Journal of Personality and Social Psychology*, 62, 88-97.

Levesque, M. J., & Kenny, D. A. (1993). “Accuracy of Behavioral Predictions at Zero Acquaintance: A Social Relations Analysis,” *Journal of Personality and Social Psychology*, 65, 1178-1187.

MacLeod, C (2005). “The Stroop Task in Clinical Research”, in A. Wenzel & DC Rubin, eds, *Cognitive Methods and Their Application to Clinical Research*, pp. 41-62, Washington, DC: American Psychological Association.

MacLeod, CM (2005). “The Stroop Task in Cognitive Research”, in A. Wenzel & DC Rubin, eds, *Cognitive Methods and Their Application to Clinical Research*, pp. 17-40, Washington, DC: American Psychological Association.

Malatesta, C. Z., Fiore, M. J., & Messina, J. J. (1987). “Affect, Personality, and Facial Expression Characteristics of Older People,” *Psychology and Aging*, 2, 64-69.

Marcus, B., Machilek, F., & Schütz, A. (2006). “Personality in Cyberspace: Personal Websites as Media for Personality Expressions and Impressions,” *Journal of Personality and Social Psychology*, 90, 1014-1031.

McGrath, S. (2004). “Moral knowledge by perception,” *Philosophical Perspectives* 18 (1):209–228.

Naumann, L. P., Vazire, S., Rentfrow, P. J., & Gosling, S. D. (2009). “Personality Judgments Based on Physical Appearance,” *Personality and Social Psychology Bulletin*, 35, 1661-1671.

Olivola CY, Funk F, Todorov A. (2014). “Social Attributions from Faces Bias Human Choices,” *Trends in Cognitive Sciences*. DOI: http://dx.doi.org/10.1016/j.tics.2014.09.007

Paulhus, D. L., & Bruce, M. N. (1992). “The Effect of Acquaintanceship on the Validity of Personality Impressions: A Longitudinal Study,” *Journal of Personality and Social Psychology*, 63, 816-824.

Pringle, A. Harmer CJ, Cooper, MJ. (2010). “Investigating Vulnerability to Eating Disorders: Biases in Emotional Processing,” *Psychological Medicine* 40, 645-655.

Pryor, J. (2000). “The Skeptic and the Dogmatist”, *Nous* 34: 517-549.

Pryor, J. (2005). “There is immediate justification”, In M. Steup and E. Sosa, eds., *Contemporary Debates in Epistemology*. Malden, MA: Blackwell.

Railton, P. (2011). “Two Cheers for Virtue, or, Might Virtue be Habit Forming?”, *Oxford Studies in Normative Ethics* 1, 295-330.

Reingold EM, Charness N, Schultetus RS, Stampe DM. (2001). “Perceptual automaticity in expert chess players: parallel encoding of chess relations,” Psychon Bull Rev. 8(3):504-10.

Reingold, E. M., Charness, N., Pomplun,M., & Stampe, D. M. (2001). “Visual span in expert chess players: Evidence from eye movements,” *Psychological Science*, 12, 49-56.

Richler, JJ, Cheung, OS and Gauthier, I (2011). “Holistic Processing Predicts Face Recognition,” *Psychological Science* 22, 464-471.

Stroop, JR (1935). Studies of interference in serial verbal reactions, journal of experimental psychology, 18, 643-662.

Tolhurst, W. (1998). “Seemings.” *American Philosophical Quarterly* 35: 293-302.

Tucker, C. (2010). “Why Open-Minded People Should Endorse Dogmatism”, *Philosophical Perspectives*.

Vazire, S., & Gosling, S. D. (2004). “e-Perceptions: Personality Impressions Based on Personal Websites,” *Journal of Personality and Social Psychology*, 87, 123-132.

Watson, D. (1989). “Strangers’ ratings of the five robust personality factors: Evidence of a Surprising Convergence with Self-Report,” *Journal of Personality and Social Psychology*, 57, 120-128.

Werner, PJ. (forthcoming) “Moral Perception and the Contents of Experience,” *Journal of Moral Philosophy*.

Widen, S. C. (2013). “Children’s Interpretation of Facial Expressions: the Long Path from

Valence-Based to Specific Discrete Categories," *Emot. Rev*. 5, 72–77.

Wood, D., Harms, P., & Vazire, S. (2010). "Perceiver Effects as Projective Tests: What Your Perceptions of Others Say About You," *Journal of Personality and Social Psychology*, 99, 174-190.

Yeagley, E., Morling, B., & Nelson, M. (2007). "Non-Verbal Zero Acquaintance Accuracy of Self-Esteem, Social Dominance Orientation, and Satisfaction with Life," *Journal of Research in Personality*, 41, 1099-1106.