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IMPENETRABILITY OF VISUAL PERCEPTION: IMPLICATIONS FOR AESTHETIC ANALYSIS

ABSTRACT: Several very recent examples are critically discussed of philosophical aestheticians using psychological data allegedly showing the cognitive penetration of visual perception in order to build arguments on major issues in aesthetics: How art expertise functions (Stokes, 2014); the (in)validity of an important aspect of Arthur Danto's theory that is based on his "gallery of indiscernibles" (Nanay, 2015); and the claim of "automatic" emotional impact of paintings (Bullot & Reber, 2013). The present critique of these aestheticians' theoretical endeavors is based largely on the recent analysis by Firestone and Scholl (2016) – sweeping, but most likely justified – to the effect that visual perception is encapsulated and that cognition does not affect visual perception. Additional theoretical and empirical support for the critique is derived from a nonemotivist theory of the effect of paintings (Konečni, 2015a).

KEYWORDS: encapsulation of perception, impenetrability of perception, modularity of perception, art expertise, Danto's "gallery of indiscernibles," emotional impact of paintings, historical-contextualist theory of art.

Impenetrability of Visual Perception: Implications for Aesthetic Analysis¹

Psychological and philosophical aestheticians' analyses of works of art, and of the processes involved in the judgment and appreciation of art, rest on assumptions about the relationship between perception and higher-level cognition. To the extent that these assumptions are not anchored in valid, up-to-date experimental findings, the aesthetic analysis will be erroneous or at least incomplete, arbitrarily devoid of a scientific foundation.

The principal purpose of the present article is to explore the negative implications of the recent methodological, empirical, and theoretical work by Firestone and Scholl (in a *Behavioral and Brain Sciences* target article, 2016) for three different sets of major, equally recent, aesthetic claims (Bullot & Reber, 2013; Nanay, 2015; Stokes, 2014). All three of the latter analyses assume, erroneously, as will be shown, that perception is "penetrable," in ways relevant for aesthetics, by higher-level cognitive influences ("top-down" effects) – in

¹ An abridged version of this article was presented by the author at the 24th Conference of the International Association of Empirical Aesthetics, held in Vienna, Austria, August 29 – September 1, 2016.

other words, that it is not "encapsulated." In contrast, Firestone and Scholl (2016) sweepingly claim, in the very title of their article, that "cognition does not affect perception."

It should be noted that Firestone and Scholl themselves did not address aesthetic issues at all, in any of their relevant articles (2015a, 2015b, 2016). However, Konečni (2015d) published a brief preview of the present article already in December of 2015.

Perception and Cognition: A Background Sketch

Three broad periods are worth distinguishing in the past sixty-five years with regard to the dominant view in psychology of the relationship between perception and cognition. The first swing of the pendulum was Bruner's "New Look" in perception in the 1940s and 1950s (Bruner, 1957; Bruner & Goodman, 1947; Bruner, Postman, & Rodrigues, 1951), set against the then prevailing "empiricist" view of perception as unbiased by beliefs, intentions, and desires. The second period, a swing back in modified form, was Fodor's (1983, 1984) modularity theory of mind, with the mind composed of computationally discrete and autonomous systems, such that perception is encapsulated from cognitive influences, that is, cognitively impenetrable. Other influential views of this period, often sharply opposed to each other in the extent to which they allowed a cognitive involvement in perception, included the ecological approach of Gibson (1979), and the cognitivist approaches of Gregory (1970) and Hochberg (1978).

The third period, characterized by the rampant dominance of the view of perception as porose (rather than encapsulated or modular), that is, fully penetrable by cognitive, top-down, influences, can be said to have begun with Paul Churchland's debate with Fodor at the end of 1980s (Churchland, 1988; Fodor, 1988). But such dominance of the cognitive penetrability view could arguably have occurred only in the climate of a rapid, full-scale takeover of psychology at leading American universities by cognitive approaches (including social cognition), and also by the founding of neuroscience departments and the beginnings of neuroimaging.

As a function of an avalanche of articles in the past ten years advocating an unrestricted blurring of distinction between perception and cognition – despite some limited defenses of impenetrability, such as that by Pylyshyn (1999), and the fact that vision science models generally omit any mention of penetrability of perception (as Firestone and Scholl (2016, p. 2, point out) – cognitive penetrability could be said to have become the major view in psychology and neuroscience. Perception is allegedly influenced by all aspects of the mind: conceptual knowledge; categorization; language; memory; motivation; emotion; preferences; expectations; desires; and fear, among others (e.g., Balcetis & Dunning, 2006; Clark, 2013; Collins & Olson, 2014; Dunning & Balcetis, 2013; Goldstone, de Leeuw, & Landy, 2015; Lupyan, 2012; Lupyan & Clark, 2015; Lupyan, Thompson-Schill, & Swingley, 2010; Mitterer, Horschig, Müsseler, & Majid, 2009; Riccio, Cole, & Balcetis, 2013; Stefanucci, Gagnon, & Lessard, 2011; Vetter & Newen, 2014; Zadra & Clore, 2011).

"Cognition Does not Affect Perception": Firestone and Scholl (2016)

The article by Firestone and Scholl ("Cognition does not affect perception: Evaluating the evidence for 'top-down' effects," 2016) therefore comes as something of a shock to many, in part because it does not mince words in maintaining the position of impenetrability of perception by cognitive influences. The broad (and bold) negative claim hits the underbelly of "penetrators of perception" in a variety of ways, perhaps most of all by demonstrating their inferential overreaching that has been made possible by serious methodological oversights in scores of experiments.

Cognitive psychologists (especially those in social cognition) are the ones most obviously castigated. Whereas social psychologists and mathematical sociologists had long been in the forefront of careful methodology, with seminal works by Rosenthal (e.g., Rosenthal & Jacobson, 1968; Rosenthal & Rosnow, 1969; Rosenthal & Rubin, 1978), Orne (1962), Campbell (e.g., Campbell & Stanley, 1963), and Heise (1975) on task demands, experimenter expectations, response bias, non-experimental designs, and causal analysis, the rise of cognitive social psychology in the 1970s coincided with a relative methodological slackness, perhaps consequent to the search for allegedly counterintuitive ("cute") findings. Much of the alleged support for the cognitive penetrability of perception is in this vein.

Firestone and Scholl (2016) took such researchers to task by carefully, sometimes cleverly, aimed experiments of their own (Firestone & Scholl, 2015a, 2015b) and by a thorough logical analysis, but, above all, by a broad and detailed literature review in which they identified half a dozen of what they call "pitfalls" in the penetrability-of-perception arsenal. About a half of the pitfalls are methodological: Many studies are shown to use "an overly confirmatory research strategy" (Firestone & Scholl, 2016, p. 7); many others suffer from "demand and response bias" problems (Firestone & Scholl, 2016, p. 10); and still others introduce confounds through poorly designed (or absent) control stimuli, because "low-level differences" have been overlooked or ignored (Firestone & Scholl, 2016, p. 11). The remaining half of the pitfalls in demonstrating cognitive, top-down influences on perception are logical and conceptual: Some studies do not show cognitive effects on perception, as they claim, but changes in higher-level judgment; similarly, other studies demonstrate (higher-level) recall and recognition effects, rather than the ones on perception (as they claim); finally, in a number of studies, "peripheral attentional effects" have been treated with insufficient care (Firestone & Scholl, 2016, p. 13). For an objective researcher in the (im)penetrability of perception debate, it is comparatively easy to agree with the claim by Firestone & Scholl (2016) that the number of identified pitfalls is modest, yet general in scope; and, indeed, that they are theoretically rich and empirically anchored.

Applications to Aesthetics

The significance of the work of Firestone and Scholl (2016) for aesthetics lies in their work's effectiveness in countering the arguably unwise zeal with which some philosophical and psychological aestheticians have recently embraced the cognitive penetrability view.

The notion of penetrability of perception has apparently created room for excessive aesthetic claims, theoretical in nature, that were forcefully put forward in large part on the basis of psychological experiments. What the aestheticians failed to notice was the questionable quality of some of these experiments, leading to faulty inferences and generalizations.

In the published commentary (Konečni, 2015d) and the Vienna conference talk (2016, see footnote 1) that led to the present article, three examples were mentioned of the arguably too hasty use by aestheticians of certain psychological experiments that claimed to have demonstrated cognitive penetrability: The critique by Firestone and Scholl (2016) addresses those very experiments (among many others – again, without actually discussing the work of aestheticians).

The remainder of the present article addresses in some detail these three aesthetic examples. Please note that in each case the aestheticians in question were concerned – supportively or critically – with a genuinely important issue in art analysis, as follows: How art expertise functions (Stokes, 2014); the validity of Arthur Danto's conclusions on the basis of his "gallery of indiscernibles" (Nanay, 2015); and the nature of the emotional impact (if any) of paintings (Bullot & Reber, 2013).

Art Expertise and Art Appreciation

To begin with, Dustin Stokes (2014) rejects formalist views and generally favors Kendall Walton's (1970) historical-contextualist theory of art appreciation. Stokes's focus is specifically on Walton's treatment of the role of art expertise in appreciation and the involvement of perceptual experience:

"Walton's claim is not the innocuous one that judgements of art co-vary with expertise. His claim is, or at least implies, that perceptual experiences of art co-vary with expertise [*suggesting cognitive penetration*], and judgements then follow. Understood this way, Walton's thesis is a profound one. But what is absent is any compelling story about the cognitive-perceptual structure that might explain how expertise has the alleged effects [*on perception*]. The most we receive is the suggestion that categories each have a distinctive perceptual gestalt" (Stokes, 2014, pp. 9-10; italicized comments added).

Stokes (2014, p. 10) states unequivocally that the latter part of Walton's account is weak, "just Frank Sibley's (1959) emergence thesis recycled – aesthetic properties depend on non-aesthetic ones," explaining:

"If you perceive a work under a particular category, say IMPRESSIONISM (*sic*), you will be perceptually aware of some non-aesthetic features and not others, and the associated gestalt may emerge. At most, this gives a thin account

of the perception-to-aesthetic reaction effect [*bottom up*], but nothing of the expertise-to-perception effect [*top down*]" (Stokes, 2014, p. 10; italics added).

Therefore, in an attempt to supplement and strengthen, at what he considered to be a crucial juncture, the historical-contextualist theory of art appreciation of Walton's that he otherwise endorsed, Stokes searched for the "cognitive-perceptual structure" that would explain how art expertise can directly affect – *change* – perceptual experience. He found it, or believed that he did, in the research on the cognitive penetration of perception. More specifically, in this vast area, Stokes focused on the perception of color, because he believed that art expertise could penetrate the perception of low-level properties, such as color, shape, and size. (Stokes seemed to reject the possibility that high-level properties, such as being balanced and graceful, could be penetrated by expertise.)

Stokes focused on the "color memory effect" and the experiments by Hansen, Olkkonen, Walter, and Gegenfurtner (2006), Olkkonen, Hansen, and Gegenfurtner (2008), and Witzel, Valkova, Hansen, and Gegenfurtner (2011). The typical (or "diagnostic") color of objects is termed their "memory color." The relevant question is this: Does the prior knowledge of an object – its pre-experimental-session categorization in terms of color – influence a research participant's perception of the color of a relevant experimental stimulus? It does, according to Stokes, on the basis of the reported experimental findings, which are allegedly an unquestionable proof of the cognitive penetration of perception, one that is relevant for the top-down effect of art expertise on the perception of a low-level property, such as color.

However, the analysis by Firestone and Scholl (2016) seriously undermines the empirical basis of Stokes's (2014) reasoning. It turns out that the color memory effect is obtained only when a particular research approach – "the adjustment method" developed by Hansen et al. (2006) – is used, one that is suspect on methodological and phenomenological grounds. With regard to the former, experimenter and task demand (including the matter of "evaluation apprehension"), and inadequately designed controls for low-level differences, can be shown to be at issue. As for the latter, a demonstration that every present reader with access to a copying machine or a camera can easily set up should suffice. Namely, Hansen et al. (2006) and Witzel et al. (2011) predict (and find in their studies) that prior familiarity with some object's diagnostic color tinges the grayscale image of the object with the familiar color. But for participants, for example, in the Hansen et al. (2006) experiment, to overshoot into blue (by some 20%!) when instructed to make a banana image gray, using the adjustment method, would typically require that they perceive a banana that they had factually already made gray as still tinged by yellow. Look for yourself at a gray-scale image of a typical banana: Firestone and Scholl (and the present author) predict that you will not see it tinged by yellow.² The tongue-in-cheek term – "amazing demonstrations!" - has been used by Firestone and Scholl (2016, p. 11) for such situations (see also the commentary by Witzel, Olkkonen, & Gegenfurtner, 2016, and the reply by Firestone & Scholl, 2016, p. 66); in fact, the latter authors have identified a number of It is instructive that even using the adjustment method, the effect occurs only with highly familiar 2 stimuli, not with the ones of moderate or low familiarity (Kimura, Wada, Masuda, Goto, Tsuzuki, Hibino, Cai, & Dan 2013), further supporting the partial interpretation of the findings in terms of an experimenter and task-demand confounding.

analogous examples in the cognitive penetration literature.³

It would therefore seem that Stokes's hypothesis that art expertise can influence the perception of low-level properties, such as color, by means of some version or analogue of the "color memory effect" is rendered implausible. Furthermore, considering that color is an important exemplar of a low-level property (for example, of paintings), Stokes's additional attempt at making a clarifying contribution to Walton's theory – that "aesthetic reaction causally depends upon perceptual experience" (Stokes, 2014, p. 8) – one, importantly, that has allegedly *been altered by expertise* – also fails.⁴

Cognitive (Im)penetration of Perception and Arthur Danto's "Gallery of Indiscernibles"

In an obituary titled "The age of Danto," the notable American aesthetician Noël Carroll (2013, p. 2) wrote that "Arthur Danto was the most important Anglo-American philosopher of art of the second half of the twentieth century and his influence continues today." Very few indeed have disagreed. Caroll continued:

"The insight that Danto derived from Warhol's *Brillo Box* was that *art* was not something that the "eye could descry."⁵That is, you cannot tell that something is an artwork simply by looking; *art* is not a perceptual category. After all, Warhol's *Brillo Box*, which is art, looks just like Proctor and Gamble's Brillo boxes, which are not art. The difference between an artwork and its real world counterpart, in other words, can be indiscernible. What makes something art is something you cannot see – a context which Danto called the Artworld – an atmosphere of history and theory" (2013, p. 2).

Bence Nanay (2015) analogously and correctly imputed to Danto the following reasoning: When one is presented with two identical paintings with different titles, the perceptual experience will be identical, but the aesthetically relevant properties attributed to the two will be different. But, according to Nanay, the two perceptual experiences could

³ Stokes (2014, p. 22) subscribes to the wide-spread opinion of the experiment by Levin and Banaji (2006) as one of the strongest counterexamples to impenetrability (a face thought to belong to a black person looks darker than that of a white person even when mean luminance is controlled). In addition to being an experiment, this is also a seemingly convincing "demonstration." However, as Firestone and Scholl (2015a, 2016) have shown, Levin and Banaji (2006) did not control for low-level differences between the images of black and white faces that they presented to participants, specifically illumination, shadow, and shininess. When Firestone and Scholl (2015a, 2016) blurred the stimulus faces, thus preserving mean luminance, but also controlling for the differences in illumination, the large majority of participants stated that the faces belonged to the same race, but nevertheless judged the face derived from a black person's face as darker, meaning that illumination was the (artifactual) key in the results of Levin and Banaji (2006). Burnston (2017, p. 1) writes this with regard to the effects of expertise: "Given the best empirical 4 and theoretical picture of how perception and perceptual learning work, CP [cognitive penetration] is not required to explain what goes on in aesthetic perception. Rather, we can account for even expertise-mediated percepts through purely perceptual processes and more mundane roles for cognition - such as instructing us where and how to look - that are too weak to imply revisionary theses such as CP." This comes from Danto's landmark book *The Transfiguration of Commonplace* (1981). 5

be the same only if there had been no cognitive penetration of perception. In other words, Nanay claimed that Danto was a (perhaps unintentional and unarticulated) Fodorian modularist (cf. Fodor, 1993) with regard to the cognitive penetration of perception.

However, Nanay's (2015) argument continued, Danto was wrong – because the cognitive penetration of perception had been decisively proven.⁶ Only the observable properties of the two paintings, not the perceptual experiences, are the same. Aesthetically relevant properties supervene on perceptual experience. The two paintings are perceived differently. In this, Nanay fully accepted the conclusions and implications of the specific research articles (including Goldstone, 1995, Hansen et al, 2006, and Levin & Banaji, 2006) that were subsequently strongly criticized by Firestone and Scholl (2015a, 2016), and that were already critically discussed in the preceding section of the present article.

The main point here is that Danto's thesis, after the work of Firestone and Scholl (2016), cannot be shown to be wrong on the basis of the cognitive penetration literature, as Nanay (2015) tried to do. But some supplementary points are certainly worthy of mention. For Danto's Artworld to have a decisive influence on evaluation, it does not need to affect perception; aesthetically relevant properties do not need to supervene on perceptual experience. Rather, it could be said that Artworld supervenes on the *observable* properties of a work, because the *placement* of a work is actually one of its important and integral observable properties. The art critic "enters" a hypothetical *gallery*, an august space where someone with knowledge or belief or money decided to place the work (*pace* Marcel Duchamp). The Brillo box, Carroll's "real world counterpart," stays in the laundry room and the Proctor and Gamble warehouse. If the humble laundry room Brillo box were to be placed in the gallery, hypothetical or real, the critic would *see, perceive* the same thing as in Warhol's work (precisely as Danto thought) and perhaps smile at the degree of identical detail, as well as the "intrusion."

Finally, one should keep in mind that Danto's theory's imperviousness to the claims regarding the cognitive penetrability of perception does not mean that one needs to agree with his view of the dominant role of Artworld in art appreciation and evaluation, or with any other version of a historical-biographical-contextual account (such as Walton's or Stokes's, among others). *Contra*-Danto and *contra*-Walton, one is fully justified in preserving the formalist analytical admiration for the work of art: *itself*, pure, alone (cf. Konečni, 2015a).

Paintings, Emotions, Attention, and the Penetrability of Perception

Emotion has always been a major subject in aesthetic analysis, in the arts, and in criticism – and frequently a bone of contention (see the review and analytic articles for visual arts, art installations, and music by Konečni, 2013, 2015a, 2015b). In the relatively limited context of the present article, two related questions are of interest. First, does the experi-

⁶ Incidentally, Nanay's paper in *Frontiers* was referred only by Gary Lupyan, a leading advocate of the cognitive penetration of perception.

ence of a psychobiological emotion (i.e., anger, fear, joy, sadness, contempt, disgust), one that has been instilled in a would be art-spectator in the customary manner in the *social real* world, alter that person's perception of a painting viewed while in that state? In other words, is our perception of two-dimensional art images encapsulated from our real-world, "garden variety," emotions? The second question is: Are paintings in and of themselves capable of producing psychobiological emotions in spectators who approach them in a neutral frame of mind? If they are, does spectators' thus altered emotional state affect their subsequent perceptual experience as they *continue* to scrutinize a painting?

These two interrelated questions allude to significant, and possibly frequent, real-world situations of continual, or multi-stage, observation of paintings by spectators, involving emotions that may arise both from without and from within the appreciation process. This is something very rarely examined in psycho-aesthetic experiments, presumably because of the enormous logistical, methodological, and statistical-analysis difficulties that are involved in dealing with the sequential presentation of aesthetic (and nonaesthetic control) stimuli and the multiple, sequentially obtained, dependent measures. Although the present article is not the place to deal with such questions at length, the intention was to make readers acutely aware of the extremely complex real-world milieux of appreciating art when emotion is rightly included in the analysis of art perception. What follows is a brief look at one recent ambitious attempt to discuss the emotional impact of paintings (Bullot & Reber, 2013), as well as the applicability of the work of Firestone and Scholl (2016) to this endeavor.

Nicolas Bullot (a philosopher) and Rolf Reber (a social psychologist), in their target article in *Behavioral and Brain Sciences*, sweepingly claimed that paintings can "auto-matically elicit" basic, psychobiological emotions such as anger, fear, and sadness (Bullot & Reber, 2013; Fig. 2 and Section 3.1.2., p. 128). This has been criticized in detail by Konečni (2015a, pp. 307-8), regarding both the "automaticity" claim (i.e., emotion instilled without any interpretation and appraisal) and their neglect of the overall low probability, empirically gauged, of psychobiologically important emotions being induced by static two-dimensional objects. Because of the extent of prior writing by the present author on this topic, only a few additional comments are in order here.

What makes the basic-emotion automaticity claim by Bullot and Reber especially surprising (in addition to it generally running counter to empirical evidence) is the statement that the mentioned psychobiological emotions, which are physiologically very pronounced states, are allegedly induced by "epistemic processes in the appreciator's discovery of the... art-historical context," and this by people who had reached "artistic understanding" (Bullot & Reber, 2013; Fig. 2, p. 128) – keeping in mind that in these authors' scheme, "artistic understanding" is the top of three modes of art appreciation. In fact, epistemic processes are generally a calm and contemplative affair (e.g., Konečni, 2015a), and the notion of connoisseurs being the most physiologically aroused group of spectators disagrees sharply with the evidence that experts generally use a narrow range of valence ratings and show less facial electromyographic activity when responding to paintings (e.g., Leder, Gerger, Brieber, & Schwarz, 2014). When thinking about this issue, one should keep in mind that a long process typically leads to connoisseurship. Connoisseurs may clearly remember their first, highly exciting, encounter with a great work of art, but it is unlikely that on that occasion they were already connoisseurs.

The main purpose of the critique of Bullot and Reber (2013) so far was to suggest that to the extent that paintings do not easily, at first sight, or frequently, arouse major emotions in spectators, it follows that as the same spectators continue to examine a painting, their perception is unlikely to be affected by emotion *even if it were "porous*" rather than encapsulated – which is, in any case, a somewhat moot issue, given that Firestone and Scholl (2016; see Pitfall 5, the end of section 4.5, p. 14) have shown that the previous findings of penetration of perception by acute emotion were generally not viable because of a variety of methodological problems.

Several research pitfalls outlined by Firestone and Scholl (2016) are relevant for other studies in the literature on which Bullot and Reber (2013) relied in various parts of their argument (some only tangentially related to emotion and art). A notable group of such experiments, of questionable reliability and validity, concern the alleged effects of "processing (dis)fluency" on aesthetic preference (e.g., Winkielman, Schwarz, Fazendeiro, & Reber, 2003).

It is instructive also to examine briefly the role of selective attention in any discussion of the cognitive penetrability of perception as it relates to paintings. Facing an image of the *Mona Lisa*, are persons who immediately closely examine her eyes and mouth an example of the cognitive penetration of perception? After all, one could say that they *know* that her smile is supposed to be of great interest and thus their eyes are drawn to those features. The answer is that such examples do not genuinely threaten the ideas of modularity and encapsulation of perception. As Firestone and Scholl (2016) have emphasized, intentionally deciding beforehand to attend predominantly to a particular feature in a visual array, that is, *intentionally changing the input to perception* (which is analogous to closing one's eyes or switching off the light or selectively attending as if by means of a spotlight or a zoom-lens), does not substantively challenge the position of encapsulation of perception (see footnote 4 regarding Burnston, 2017, p. 1).

Conclusions

It is commendable that both philosophical and psychological aestheticians have been increasingly paying attention to the latest findings in experimental psychology and neuroscience (including neuroaesthetics – see Konečni, 2015c). This trend is in line with the slowly growing receptivity in analytical philosophy in general to the use of data in argument and discourse, embodied to a modest extent in the recent "experimental philosophy" movement (actually a misnomer for *empirical* philosophy – see Konečni, 2012). The use of data obtained by scientific methodology has, of course, characterized philosophies of science and of mind for a long time, but even in those fields errors sometimes occur that can clearly be traced to the fact that the philosophers in question have never themselves carried out *any* experiments.

However, in the case of the three examples that were discussed in the present article of aestheticians using psychological data to build aesthetic arguments (Bullot & Reber, 2013; Stokes, 2014) or counterarguments (Nanay, 2015), these scholars can be blamed only for overlooking the methodological blunders committed by experimental (including social) psychologists in the area of (im)penetrability of visual perception. Some errors are subtle, some rather massive, but in all cases they were apparently unnoticed by the reviewers and editors of prestigious journals in which the articles in question, *numerous* articles, were published. Aestheticians can hardly be faulted for trusting such sources.

The author of the present article feels amply justified in stating that the work of Firestone and Scholl (2016) is a very important conceptual and methodological swing of the pendulum back toward the view that visual perception is encapsulated. Philosophical and psychological aestheticians are urged to examine this work carefully before developing ideas that are grounded in the cognitive penetration of perception.

References:

- Balcetis, E., & Dunning, D. (2006). See what you want to see: Motivational influences on visual perception. *Journal of Personality and Social Psychology*, *91*, 612–625. http://dx.doi.org/10.1037/0022-3514.91.4.612
- Bruner, J. S. (1957). On perceptual readiness. *Psychological Review*, 64, 123–152. http://dx.doi.org/10.1037/h0043805
- Bruner, J. S., & Goodman, C. C. (1947). Value and need as organizing factors in perception. *Journal of Abnormal and Social Psychology*, *42*, 33–44. http://dx.doi.org/10.1037/h0058484
- Bruner, J. S., Postman, L., & Rodrigues, J. (1951). Expectation and the perception of color. *American Journal of Psychology*, 64, 216–227. http://dx.doi.org/10.2307/1418668
- Bullot, N. J., & Reber, R. (2013). The artful mind meets art history: Toward a psychohistorical framework for the science of art appreciation. *Behavioral and Brain Sciences, 36,* 123–137. <u>http://dx.doi.org/10.1017/S0140525X12000489</u>
- Burnston, D. C. (2017). Is aesthetic experience evidence for cognitive penetration? *New Ideas in Psychology*. Advance online publication. <u>http://dx.doi.org/10.1016/j.newideapsych.2017.03.012</u>
- Carrol, N. (2013). The age of Danto. ASA Newsletter, 33, 2.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs* for research. Boston, MA: Houghton Mifflin Company.
- Churchland, P. M. (1988). Perceptual plasticity and theoretical neutrality: A reply to Jerry Fodor. *Philosophy of Science*, 55, 167–187.
- Clark, A. (2013). Whatever next? Predictive brains, situated agents, and the future of cognitive science. *Behavioral and Brain Sciences*, 36, 181–204. <u>http://dx.doi.org/10.1017/S0140525X12000477</u>

- Collins, J. A., & Olson, I. R. (2014). Knowledge is power: How conceptual knowledge transforms visual cognition. *Psychonomic Bulletin and Review*, *21*, 843–860. http://dx.doi.org/10.3758/s13423-013-0564-3
- Danto, A. C. (1981). The transfiguration of commonplace. Cambridge, MA: Harvard University Press.
- Dunning, D., & Balcetis, E. (2013). Wishful seeing: How preferences shape visual perception. *Current Directions in Psychological Science*, 22, 33–37. http://dx.doi.org/10.1177/0963721412463693
- Firestone, C., & Scholl, B. J.
 - (2015a). Can you *experience* top-down effects on perception? The case of race categories and perceived lightness. *Psychonomic Bulletin & Review*, 22, 694–700. http://dx.doi.org/10.3758/s13423-014-0711-5
 - (2015b). Enhanced visual awareness for morality and pajamas? Perception vs. memory in top-down effects. *Cognition, 136*, 409–416. <u>http://dx.doi.org/10.1016/j.cognition.2014.10.014</u>
 - (2016). Cognition does not affect perception: Evaluating the evidence for 'top-down' effects. *Behavioral and Brain Sciences*, *39*, 1–19. https://doi.org/10.1017/S0140525X15000965

Fodor, J. A.

- (1983). The modularity of mind: An essay in faculty psychology. Cambridge, MA: MIT Press.
- (1984). Observation reconsidered. Philosophy of Science, 51, 23-43.
- (1988). A reply to Churchland's "Perceptual plasticity and theoretical neutrality." *Philosophy of Science*, *55*, 188–198.
- (1993). Déjà vu all over again: How Danto's aesthetic recapitulates the philosophy of mind. In M. Rollins (Ed.), *Arthur Danto and his critics* (pp. 41–54). Oxford, England: Blackwell.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston, MA: Houghton Mifflin.
- Goldstone, R. L.
 - (1995). Effects of categorization on color perception. *Psychological Science*, 6, 298–304. http://dx.doi.org/10.1111/j.1467-9280.1995.tb00514.x
- Goldstone, R. L., de Leeuw, J. R., & Landy, D. H. (2015). Fitting perception in and to cognition. *Cognition*, 135, 24–29. <u>http://dx.doi.org/10.1016/j.cognition.2014.11.027</u>
- Gregory, R. L. (1970). The intelligent eye. New York, NY: McGraw-Hill.
- Hansen, T., Olkkonen, M., Walter, S., & Gegenfurtner, K. R. (2006). Memory modulates color appearance. *Nature Neuroscience*, 9, 1367–1368. http://dx.doi.org/10.1038/nn1794
- Heise, D. (1975). Causal analysis. New York, NY: Wiley-Interscience.
- Hochberg, J. E. (1978). Perception. Englewood Cliffs, NJ: Prentice-Hall.
- Kimura, A., Wada, Y., Masuda, T., Goto, S., Tsuzuki, D., Hibino, H., Cai, D., & Dan, I. (2013). Memory color effect induced by familiarity of brand logos. *PLoS ONE*, 8(7): e68474. <u>http://dx.doi.org/10.1371/journal.pone.0068474</u>

Konečni, V. J.

- (2012). Empirical psycho-aesthetics and her sisters: Substantive and methodological issues (Part I). *Journal of Aesthetic Education*, 46, 1–12.
- (2013). Music, affect, method, data: Reflections on the Carroll v. Kivy debate. *American Journal of Psychology*, *126*, 179–195.

http://doi.org/10.5406/amerjpsyc.126.2.0179

- (2015a). Emotion in painting and art installations. *American Journal of Psychology*, 128, 305–322. http://dx.doi.org/10.5406/amerjpsyc.128.3.0305
- (2015b). Paintings and emotion: A nonemotivist reevaluation. *Theoria*, 58, 5–18. http://dx.doi.org/10.2298/THEO1503005K
- (2015c). Reflections on psychological and neuroaesthetics. *Theoria*, 58, 5–15. http://dx.doi.org/10.2298/THEO1501005K
- (2015d). The significance of encapsulation of visual perception for philosophy of mind and aesthetic analysis. *Clinical and Experimental Psychology*, *1*:102. http://dx.doi.org/10.4172/cep.1000002
- Leder, H., Gerger, G., Brieber, D., & Schwarz, N. (2014). What makes an art expert? Emotion and evaluation in art appreciation. *Cognition and Emotion*, 28, 1137–1147. http://dx.doi.org/<u>10.1080/02699931.2013.870132</u>
- Levin, D. T., & Banaji, M. R. (2006). Distortions in the perceived lightness of faces: The role of race categories. *Journal of Experimental Psychology: General*, 135, 501–512. http://dx.doi.org/10.1037/0096-3445.135.4.501
- Lupyan, G. (2012). Linguistically modulated perception and cognition: The label-feedbackhypothesis. *Frontiers in Psychology*, 3:54. http://dx.doi.org/10.3389/fpsyg.2012.00054
- Lupyan, G., Thompson-Schill, S. L., & Swingley, D. (2010). Conceptual penetration of visual processing. *Psychological Science*, *21*, 682–691. http://dx.doi.org/10.1177/0956797610366099
- Lupyan, G., & Clark, A. (2015). Words and the world: Predictive coding and the language-perception-cognition interface. *Current Directions in Psychological Science*, 24, 279–284. http://dx.doi.org/10.1177/0963721415570732
- Mitterer, H., Horschig, J. M., Müsseler, J., & Majid, A. (2009). The influence of memory on perception: It's not what things look like, it's what you call them. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 35, 1557–1562. http://dx.doi.org/10.1037/a0017019
- Nanay, B. (2015). Cognitive penetration and the gallery of indiscernibles. *Frontiers in Psychology*, *5*, 1527. http://dx.doi.org/10.3389/fpsyg.2014.01527
- Olkkonen, M., Hansen, T., & Gegenfurtner, K. R. (2008). Color appearance of familiar objects: Effects of object shape, texture, and illumination changes. *Journal of Vision, 8*, 1–16. http://dx.doi.org/10.1167/8.5.13

- Orne, M. T. (1962). On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, 17, 776–783. http://dx.doi.org/10.1037/h0043424
- Pylyshyn, Z. (1999). Is vision continuous with cognition? The case for cognitive impenetrability of visual perception. *Behavioral and Brain Sciences*, *22*, 341–365.
- Riccio, M., Cole, S., & Balcetis, E. (2013). Seeing the expected, the desired, and the feared: Influences on perceptual interpretation and directed attention. *Social and Personality Psychology Compass*, 7, 401–414. http://dx.doi.org/10.1111/spc3.12028
- Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom*. New York, NY: Holt, Rinehart & Winston.
- Rosenthal, R., & Rosnow, R. L. (Eds.). (1969). *Artifact in behavioral research*. New York, NY: Academic Press.
- Rosenthal R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, *1*, 377–386. <u>http://dx.doi.org/10.1017/S0140525X00075506</u>
- Sibley, F. (1959). Aesthetic concepts. *Philosophical Review*, 68, 421–450. http://dx.doi.org/10.2307/2182490
- Stefanucci, J. K., Gagnon, K. T., & Lessard, D. A. (2011). Follow your heart: Emotion adaptively influences perception. *Social and Personality Psychology Compass*, 5, 296–308. http://dx.doi.org/10.1111/j.1751-9004.2011.00352.x
- Stokes, D. (2014). Cognitive penetration and the perception of art. *Dialectica*, 68, 1–34. http://dx.doi.org/10.1111/1746-8361.12049
- Vetter, P., & Newen, A. (2014). Varieties of cognition penetration in visual perception. Consciousness and Cognition, 27, 62–75. http://dx.doi.org/10.1016/j.concog.2014.04.007
- Walton, K. (1970). Categories of art. *Philosophical Review*, 79, 334–367. http://dx.doi.org/10.2307/2183933
- Winkielman, P., Schwarz, N., Fazendeiro, T., & Reber, R. (2003). The hedonic marking of processing fluency: Implication for evaluative judgment. In J. Musch and K. C. Klauer (Eds.), *The psychology of evaluation: Affective processes in cognition and emotion* (pp. 189–217). Mahwah, NJ: Erlbaum.
- Witzel, C., Olkkonen, M., & Gegenfurtner, K. R. (2016). Memory colours affect colour appearance. *Behavioral and Brain Sciences*, 39, 51–52. http://dx.doi.org/10.1017/S0140525X15002587
- Witzel, C., Valkova, H., Hansen, T., & Gegenfurtner, K. R. (2011). Object knowledge modulates colour appearance. *i-Perception*, 2, 13–49. <u>http://dx.doi.org/10.1068/i0396</u>
- Zadra, J. R., & Clore, G. L. (2011). Emotion and perception: The role of affective information. *Wiley Interdisciplinary Reviews: Cognitive Science*, *2*, 676–685. http://dx.doi.org/10.1002/wcs.147

Neprobojnost vizuelne percepcije: implikacije za estetičku analizu (Apstrakt)

U članku se kritički razmatra nekoliko skorašnjih primera upotrebe podataka iz psiholoških laboratorija od strane (filozofskih) estetičara – podataka koji navodno demonstrirajuspoznajnu probojnost vizuelne percepcije – a u svrhu razrade važnih problema u estetici: kako funkcioniše ekspertnost u umetnosti (Stouks [Stokes], 2014); (ne)ispravnost jednog važnog aspekta teorije Artura Danta [Arthur Danto] koji se zasniva na njegovoj "galeriji nerazlučivih"(Nenej [Nanay], 2015); i tvrdnja da umetničke slike imaju "automatski" uticaj na emocije (Bilo i Reber [Bullot i Reber], 2013). U ovom članku, kritika gorepomenutih teorijskih nastojanja estetičara oslanja se velikim delom na dalekosežnoj, ali verovatno opravdanoj, analizi Fajerstona i Šola (2016 [Firestone i Scholl]) po kojoj je vizuelna percepcija enkapsulirana, to jest, kognicija ne utiče na nju. Ne-emotivistička teorija o uticaju umetničkih slika (Konečni, 2015a) pruža dodatnu teorijsku i empirijsku podršku kritici.

Ključne reči: enkapsulacija opažanja; neprobojnost vizuelne percepcije; modularnost percepcije; ekpertnost u umetnosti; "galerija nerazlučivih"Artura Danta [Arthur Danto]; uticaj slika na emocije; istorijsko-kontekstualna teorija umetnosti.