

Guest editorial

Visual art and visual perception

‘Visual art’ has become a minor cul-de-sac orthogonal to THE ART of the museum directors and billionaire collectors. THE ART is *conceptual*, instead of *visual*. Among its cherished items are the tins of artist’s shit (Piero Manzoni, 1961, *Merda d’Artista*) “worth their weight in gold”. I perceive a metabletic (van den Berg, 1956) parallel to philosophy transforming itself into speculative logic games, and psychology going cognitive by freeing itself from phenomenology. Here I want to consider *visual* art in its relation to visual perception.

Art is about awareness, analogous to the way poetry is about reflective thought. The dictionary definition of a tiger is (dictionary.reference.com, 2014):

“a large, carnivorous, tawny-colored and black-striped feline, *Panthera tigris*, of Asia, ranging in several subspecies from India and the Malay Peninsula to Siberia: the entire species is endangered, with some subspecies thought to be extinct”,

whereas, in poetry, one might think of William Blake’s (1789/1794) *The Tyger*. I quote the first verse:

“Tyger! Tyger! burning bright,
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?”

The tyger (figure 1) is in no way a ‘veridical rendering’ of any real instance of *Panthera tigris*, although Blake’s lines may have more affinity to your mental tyger image than the dictionary blurb. This is perhaps a bit like Picasso’s (1910) *Fanny Tellier*. Fanny is known to



Figure 1. At left, Picasso’s *Fanny Tellier*; at right, Blake’s *The Tyger*.

you from the painting, but would you have recognized her in a disco? Would a stuffed tiger in a natural history museum or a wax Fanny Tellier at Madame Tussaud's ('stuffed' would be objectionable here!) be 'truer' than art? In my view visual art wins hands down! I'm hesitant to say it, but if you actually had a stuffed Fanny Tellier, you might make a fortune on THE ART market: simply sell it as ART!

But science says yes, there *is* an objective notion of right and wrong in rendering. Picasso's Fanny Tellier is *bad* as a portrait, and Blake's Tyger *sheer nonsense*. The essence of this conviction was clearly outlined by James Gibson (1954):

"A faithful picture is a delimited physical surface processed in such a way that it reflects (or transmits) a sheaf of light-rays to a given point which is the same as would be the sheaf of rays from the original to that point" (page 14).

Thus a picture is *true* ('faithful') in that it is a *virtual reality*, equivalent to a view through a window. A picture is essentially a *peephole show*. This implies that there is a conceivable physical scene that would serve to 'explain' the show. Then the 'truth' of the picture somehow derives—mysteriously!—from this. Apparently, truth is gauged by its nearness to the All Seeing Eye. In Gibson's world vision is a kind of automatic inverse optics that makes you resonate with the physical environment. For what else can a picture be, if not a substitute for an 'optic array'? Picasso's is not a faithful picture; it is a *distortion*, which almost amounts to an unethical deed. Picasso throws a spanner in the natural order, so to speak.

For various reasons, this is indeed a remarkably *mysterious* notion, despite the fact that perhaps many scientists agree, at least silently. Indeed, who doubts that Hollywood makes fortunes for itself by exploiting the fact that *any* image might have been due to *infinitely many* distinct physical scenes? We're talking big \$\$s; this is real life! Thus the very notion of 'veridicality' is void when applied to pictorial content.

David Hockney (2006) famously suggested that modern Western art discovered the purported 'truth' from the deployment of assorted optical machinery, such as the *camera obscura*, the *camera lucida*, the *Claude glass*—you name it. This explains the so-called 'realism' of Western art as due to a slavish dependence upon copying 'optical reality'. By way of a surprising Kon-Tiki-proof (Heyerdahl, 1950), a professed nonartist actually painted 'a Vermeer' this way (Teller, 2013). Visual art thus reduces to the art of the snapshot. Hippolyte (commonly known as Paul) Delaroche (1797–1856), a famous painter of his time, is reputed to have spontaneously (and famously) exclaimed "À partir d'aujourd'hui la peinture est morte!" [as of now painting is dead!] when confronted with an early Daguerreotype. Indeed, his paintings are like imaginative snapshots; who remembers them?

Such an idea degrades art to *mimesis*. Originally, one supposedly copied the scene in front of the observer; later—with Claude Monet (1840–1926)—one copied one's retinal images. What's the difference? Only at the end of the 19th century did one smell a fish. For instance, Konrad Fiedler (1887) from a philosopher's, and Adolf Hildebrand (1893) from an artist's, perspective offered alternative accounts.

Fiedler basically defended what later became Ernst Cassirer's *symbolic forms* (1923–1929), and later still Susan Langer's (1942, 1953) perceptive account of the arts. Such ideas are echoed in George Lakoff's (1987) *Women, fire and dangerous things*. In Fiedler's view, art is a way of conquering reality, much like language, albeit in a different modality. The artist literally gets to grips with his or her reality, and is thereby able to communicate it to others. It is a constructivist view. Art does not copy because there is nothing to copy. The artist's 'reality' is a construction of the artist's mind. Such constructions are 'true' to the extent that they subserve biological fitness (von Uexküll, 1921). That is why 'primitive art' is necessarily 'abstract', although its forms are not 'abstractions' from the 'physical world', whatever that may be. Not at all. Its forms are *literally* (although perhaps mysteriously) reality. Like Gestalts.

Hildebrand's is an artist's response. He would have denounced Gibson's virtual reality as utterly *unartistic*. The peep hole show—that is, the painting from the academies: think of Jean-Léon Gérôme (1824–1904) in France or Sir Lawrence Alma-Tadema (1836–1912) in London—was in the same category as photographs, Madame Tussaud's, or panoramas. Remember that this was the 1890s. The artist does not mimic, but *creates*. Mimesis is mere *passive*, slavish recording, indeed similar to snapping a shot with your iPhone. In contradistinction, creation involves an *active* 'architectonic' (Hildebrand's term) process. The artist understands enough of the nature of the psychogenesis of visual awareness to be able to kindle perceptions in observers that are more immediate and articulate than the observer might ever experience in an actual scene. That is why visual art can 'transcend reality'. Thus the artist has a working knowledge of the science of visual perception. Picasso's Fanny Tellier can actually appear *more real* than a wax copy of that girl. At least in some respects, for art is necessarily selective. Likewise, Blake's tyger evokes strong 'tygerly' experiences in listeners to the poem, perhaps transcending those evoked by the view of a stuffed tiger in a natural history display.

Thus Fiedler and Hildebrand's ideas are very similar. Indeed, they knew each other quite well. Hildebrand is perhaps more directly important to the readers of *Perception*, because he discusses many topics, like depth perception, various 'cues' or Gestalt-like templates, empathy, and so forth in a thoroughly down-to-earth fashion.

Do such ideas have any relevance to the scientific study of visual perception? It depends upon your philosophy. If you are of the behaviorist bent—under whatever name—you should simply declare all art to be nonsense, and get on with your science. Let people talk any nonsense they want, for speech is nothing but a mere movement of air molecules anyway! If you actually believe that there is such a thing as visual awareness, you're dangerously close to phenomenology, which—as we all know—is not science. No problem if you're honest about that, but understand that you can't have the best of either view. However, many people cheat! Simply stated, science and phenomenology don't mix. In my view they're complementary, but many would rather retain either the one or the other.

Can artistic production be used as a valid 'response' in experimental phenomenology? Wrestling with this question actually triggered me to write this editorial. My immediate response is "why not?", for the problem seems identical to that of whether a verbal 'response' may count as such. Both are 'first-person accounts'. Of course, you understand that I'm not talking of yes–no responses, for an artist might also be required to give cross–nought–mark responses as well. I mean 'meaningful' responses, like 'descriptions' of aspects of visual awareness. I have used such 'responses' in the past myself (Koenderink & van Doorn, 2009), and I would be hard put to obtain such information in any other way. Bilge Sayim and Johan Wagemans (2013) have studied visual crowding by such methods, and I'm again hard put to imagine any other way that they might have obtained more enlightening results. I can think of a handful of other recent occasions. A century ago, Gestalt-oriented scientists used similar methods (Metzger, 1936) as a matter of course, and no one complained.

A common problem with drawings as 'responses' is that many people will loudly protest that they 'cannot draw'. Perhaps remarkably, this is rarely taken as a sign of mental deficiency, whereas protests such as "I cannot put into words what I mean" are often understood as a sign of a certain simplicity of mind. Yet I'm convinced that all people *construct* visual awareness just as they *construct* reflective thought. Perhaps fortunately, children rarely protest, and, indeed, Baingio Pinna (2012, 2013)—remember the Sardinia ECVF?—has used children's drawings as responses in phenomenological experiments with very interesting results. On "draw me a red square", a young child takes a darkish pencil (black, blue, brown, ..., but rarely yellow) and outlines a 'square'. The form comes first! But such a square looks 'white' to the child, so it carries on by taking a red crayon and filling the interior with reddish scribble. Now it is indeed a 'red square'! That's what it *is*, so that's what it *looks*. Or perhaps vice versa.

Did we learn anything from this reflection? For me, yes, but how about you? It is an important decision, for it hinges on what you believe science *is*. You, too, are *forced* to take sides!

Jan Koenderink

Laboratory of Experimental Psychology, University of Leuven (KU Leuven), Tiensestraat 102, Box 3711, B-3000 Leuven, Belgium; e-mail: KoenderinkJan@gmail.com

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