



The Society of
Light and Lighting

Opinion: Lighting as magic

I have always been fascinated by magic. There is something charming and at the same time disarming about how magicians perform. I held my breath as a small child watching flags, streamers and, finally, a dove being pulled out of a hat. And even now that I know how some of the tricks are done, I admire the performance for its perfection in the art of concealing. Sometimes I think a magician does the opposite of what we typically do in lighting which is a good reason for us to have a look at magic. Magicians are keenly aware of the shortfalls of our vision, such as:

- We spend a lot of time ‘off-line’: For a total of five hours a day, we watch a frozen picture, due simply to blinking and switching focus.
- We are easily distracted: Over half of our visual field calls out to us whenever it notices movement. The peripheral field of vision is the locus of our evolutionary history and is linked to herd behaviour.
- We are attentively inattentive: When we focus hard on one thing, we ignore everything else. The professor is the stereotype of absence through concentration. Our visual system has to juggle, if it wants to attend to different events simultaneously. Not surprisingly, it drops the odd ball.
- We retain little: We extract from the scene the bare essentials and dump the rest. Our short-term memory is pretty sketchy and our long-term memory is more often than not just a plausible reconstruction.
- We are lazy: We watch other people and take their reaction as witness for the real

thing. If it is too hard to watch a ball, we follow the eyes of the person throwing or just infer the trajectory from the thrower’s movement.

- We love jumping to conclusions: If we think we have recognized one thing, but it was really something else, we all the same try to stick to the preconception – magicians love this.
- We see what we believe: A mere suggestion helps to complete a picture. The word ‘re’-cognize implies that we need little information to identify something the likeness of which we have seen before.
- We are masters of anticipation: We perceive now, what our vision system thought a moment ago would be our present. Our vision system has an inbuilt lag.

From the magician’s point of view, perception is delightfully human: It just about works and can be manipulated easily. The same can be said about lighting: it works reasonably and may, either by design or inadvertently, be manipulated.

When I look at the significant progress made by lighting over the last two decades, I observe previously unknown functionality and flexibility. What I wonder, however, is: does lighting help us to understand the world around us or does it, like the magician, conceal important aspects?

*Burkard Wördenweber
Phasix GmbH, Lippstadt, Germany
Email: burkard.woerdenweber@phasix.de*