

Grandin

Animals in Translation (2005)

p. 18

Being verbal thinkers, behaviorists hadn't really thought about the visual environment. -

Normal people literally *don't* see a lot of things. There's a famous experiment by a psychologist named Daniel Simons, head of the Visual Cognition Lab at the University of Illinois, called *Gorillas in Our Midst*, that shows you how poor people's visual awareness is. In the experiment, they show people a videotape of a basketball game and ask them to count how many passes one team makes. Then, a little while into the tape, while everyone is sitting there counting passes, a woman wearing a gorilla suit walks onto the screen, stops, turns, faces the camera, and beat her fists on her chest.

Fifty percent of all people who watch this video *don't see the gorilla!*

Even when experimenters ask them directly, "Did you notice the gorilla?" they say, "The what?" It's not that they don't remember the lady in the gorilla suit. Anyone who's forgotten something he saw will remember it when you give him a prompt. These folks actually didn't see the lady gorilla in the first place. She didn't register. (Simons, D.J. & Chabris, C.F. (1999) "Gorillas In Our Midst: Sustained Inattentive Blindness for Dynamic Events," *Perception* 28, 1059-74.

The experimenters tested out their theory with another video in which an actor suddenly changes into a whole different person, wearing a completely different set of cloths. Seventy percent of normal people don't notice that, either (pp. 24-25). -

The scariest study, though, was the one NASA did with commercial airplane pilots. The researchers put them in a flight simulator and asked them to do a bunch of routine landings. But on some of the landings approaches the experimenters added the image of a large commercial parked on the runway, something a pilot would never see in real life (at least, let's hope not). *One quarter of the pilots landed right on top of the airplane.* They never saw it.

I've seen photographs from the study, and what's interesting is that if you're not a pilot, the parked plane is obvious. You can't miss it, and you don't have to be autistic to see it, either. If you're a professional, expecting to see what a professional normally *would* see, there's a 25 percent chance you'll miss a huge commercial aircraft parked crossways blocking the landing strip in a flight simulator (p. 25). (Carter, R. (2002). *Exploring Consciousness*. Berkeley, CA: University of California Press. -

In their book *Inattentive Blindness* Arienne Mack at the New School for Social Research in New York City and Irvin Rock, who was a professor at the University of California, Berkeley, until he died in 1995, explain that people don't consciously see any object unless they are paying direct, focused attention to that object.Normal human beings are blind to anything they're not paying attention to (pp. 50-51). (Mack, A. & Rock, I. (1998). *Inattentive Blindness: An Overview*. Cambridge: MIT Press. - [Professor Rock was one of the writer's

teachers at the New School].

The whole neocortex is one big association cortex, making all kinds of things that stay more separate

....humans make rapid generalizations from one situation to another.... A generalization depends on making an association between one situation or object and another, situation or object.

Inside the neocortex, the frontal lobesare the final destination for all the information that's floating around your brain. They pull everything together.

[A big neocortex gave man their "book smarts" (p. 55)].

The price human beings pay for having such big, fat frontal lobes is that normal people become oblivious (to the details). Normal people stop *seeing* the details that make up the big picture and see on the big picture instead (p. 56).

....a normal person's brain uses the detailed raw data of the world to form a generalized concept or schema, and that's what reaches consciousness. That's why normal people see only what they expect to see ---because they can't consciously experience the raw data, only the **schema** their brains create out of the raw data. [The schemas screen out details before they can reach consciousness].

Normal people see and hear schema, not raw sensory data (p. 65). -

We know people see things they don't know they see because of years of research into areas like *I*. Dr. Mack and Dr. Rock, who wrote *Inattentional Blindness*, adapted some of these studies for their inattentional blindness research. They'd do things like ask their subjects to tell them which arm of a cross, that flashed onto a computer screen for about 200 milliseconds, was longer. Then, on some of the trials, there'd be a word like "grace" or "flake" printed on the screen, too. Most people didn't notice the word. They were paying attention to the cross, so they didn't see it [the words]. -

Drs. Rock and Mack say that inattentional blindness works at a ***high level of mental processing***, meaning that your brain does a lot of processing before it **allows** something into consciousness (p. 66). -

[The normal, verbally word-dominated brain functions in a manner that excludes much if not most of how people see and experience visual images. How is it possible, we will ask, to grasp what it is another person is 'telling' us using language to convey an impression of this person's visual experience if the words themselves blind both of us to what is being seen?]

Lots of studies show that **the language parts of your brain block your memory for images**. Language doesn't *erase* your image memories: the images are still there, inside your head. But language keeps the images from becoming conscious. Psychologists call this ***verbal overshadowing***.... (p. 92). (Grandin, T. & Johnson, C. (2005) *Animals in Translation*. Scribner, New York. ISBN 0-7432-4769-8 (356 pages). (Grandin, 2005)

