

Indirect vision, crowding, and textbook ducks*

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*The correct term is probably “canard” – like a hoax but unintentional

Indirect vision is seeing outside of a tiny central area in the visual field. It has strange properties that we are not aware of, even though 99.9% of the visual field's area is concerned. We can recognize patterns without knowing where they are. Or see movement without something that moves. Interestingly, in many textbooks the visual field's outer limit is reported incorrectly as smaller than it is. That, even though the correct limit is known since at least 1840 – Germans call that a “textbook duck”*. Textbooks also routinely say that the lower spatial resolution were the main limit of peripheral vision. Yet as we will see, that again is incorrect, because in even slightly indirect vision the crowding effect is far more limiting than reduced acuity. The talk will give a review of research on indirect vision (starting with the 10th century), will present our results on low-contrast letter recognition and letter crowding (Strasburger & Malania), as well as a conceptual model of how crowding could work.