

PSYCHOLOGY

First Vision

Psychologist Has Made a Study of How the World Looks to Those Who Have Always Been Blind

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SUPPOSE you had been blind from birth. Suppose that the rich variety of colors that you see in nature, in dress, and in familiar household objects were merely names to you; that all forms were strange, and movements novel to your sight.

Can you picture to yourself just how they would look to you when your sight was restored? Would you admire the sights you now find beautiful? Would you be able to distinguish a pencil from a fork? Would you be attracted toward a red hat or repelled by a red apple?

Some few people have had just this strange experience. Born with cataracts on their eyes that prevented all vision, and even in some cases excluded all light, they were operated on when they were grown up and as adults had the confusing experience that confronts every newborn baby—looking on the world for the first time.

Now a psychologist, Dr. Wayne Dennis of the University of Virginia, struck by the dramatic quality of their experiences and with the value they would have in indicating just what aspects of our vision are "natural" or unlearned and what are acquired through dusty books on medicine and accounts in journals old and new for the stories of such cases. He has summarized what he found in a report to the *Journal of Social Psychology*.

Learning to Look

Did it ever occur to you that your ability to train your eyes on the object that you wish to see is something that you have learned as a result of experience? Observation of these persons with newly acquired vision indicates that it is not an ability that just "comes naturally" along with the blessing of sight. Those individuals whose eyes were thinly obscured by the cataracts so that they were able to tell light from darkness had learned in their handicapped state to turn their heads toward the source of light. These persons

were able without difficulty to turn their eyes toward any object they wished to observe. But others who had lived in total darkness had to learn how. They were puzzled as you might be in trying to watch a moving object reflected at a peculiar angle in a mirror. They had to turn their heads in first one direction and then another until the object was directly seen.

Distance is another baffling matter to those with new vision. Objects at a considerable distance are groped for close to the face, reminding the observer of the confident way in which a baby will reach out and try to clasp the shining moon.

A boy given his sight for the first time at the age of 13, thought that all the objects he could see must be brushing against his eyes in the same way that the things he felt must touch his skin. Another patient, a man, went up a flight of stairs two steps at a time without noticing what he was doing; others constantly were inclined to step too high when walking with their eyes open.

World is Bewildering

Perhaps you think that the shape and texture of objects look just about as they feel. That is only so because of your long association of the sight of things with their feel in your hand. Those to whom vision is a new experience look upon a bewildering world of unrecognizable objects. They have no notion of what anything might be. Even the simple form of an orange can not be identified until it can be touched. This is very confusing to the patient, and sometimes depressing or discouraging as well.

The thirteen-year-old boy started out, just as a child would, by asking of each object, "What is it?" He would stare long at it, trying to fix its appearance in his mind so that he should know it when he saw it again. He would thus learn—and forget—what seemed to him to be thousands of objects in a day. One day he discovered that he had forgotten which was the cat and which was the dog. He picked up the cat



COULD YOU NAME THIS BIRD?

To the person who has never before seen, even the common dog and cat look as strange as this creature does to us. It is a mythical bird described in an old book, "Curious Creatures in Zoology."

and held her, recognized her by feeling and then looked at her steadfastly, at last setting her down with, "So, puss, I shall know you another time."

Faces are not easily recognized by those with newly acquired vision. It was three days before one patient noticed the nose on her brother's face. Even after months of vision, only the most intimate familiars are known "by sight."

Colors seemed to be immediately distinguished by these persons, and the names for them readily learned. In fact colors, in some cases at least, made more impression on the patients than they would on a person accustomed to vision. One woman wanted to throw away all her dresses because they seemed to her too gaudy.

What the individual with new-found vision considers beautiful or repulsive is sometimes incomprehensible to those who have long seen. And, indeed, there does not seem to be any agree-