the eye would not make the test easier for some individuals.

What do you see? Probably some are quite distinctly two squares. Others look exactly as though they had magically run together. But another group probably are not clearly either two or one. They may appear fuzzy down the middle, or they may be uncertain—now two, now one. It is in this latter group that you are most likely to notice a difference when you hear the high-pitched sound, or smell the "loud" smell.

And here is another even more interesting experiment that you can easily try out in your own living room:

The materials you need are only a bright colored piece of paper—very bright green is probably best—a sheet of neutral gray paper and a tuning fork.

First stare at the bright spot of paper without moving your eyes for about a minute. Gradually you will notice that the edges become fuzzy and have a sort of pinkish halo—that is, it will be pinkish if your paper is green. If you chose a red patch, the color around the edge will be green. But keep looking until the minute is up. Then slip the gray sheet over the green and look at it steadily for a moment.

What do you see now? If you have not tried this stunt before you may be surprised at how bright and real the red patch is. Wait until it just begins to fade and then set the tuning fork to vibrating and bring it close to your ear. You will probably find that the image brightens perceptibly. Now move the fork away, and see what happens.

Many who tried it, found that unaccountably when the fork was moved out of hearing the image vanished with it. Sometimes bringing the fork back will restore the image; sometimes it is gone for good.

For a few, the fork did not seem to brighten the image but caused it to wave or flicker in tune with the vibrations of the fork.

The amount of improvement in vision brought about by the sounds and smells and hammer blows is, of course, very slight. It is, however, sufficiently consistent to point definitely to one fact —there is apparently some connection between the senses.

"Apparently, lights, sounds, smells, pressures, and pains do have some property or properties in common, for how otherwise would one account for their similar influence upon visual acuity?" Dr. Hartmann said.

Sounds Having Color

And there is an exchange of energy between the different centers of the brain, Dr. Hartmann is convinced as a result of his experiments. The activity of any one sense organ does not remain confined in that organ, he says, but spreads, although in lesser degree over all the other sense centers.

It is not that your eyes respond to sound waves, or to odors. But when your ear receives the sound and transmits it to the auditory centers of the brain, its duty is not yet done. The nervous impulses which carry the sound also excite other centers of the brain. When the visual centers receive these impulses, they are interpreted by you as coming by way of the eye—what you see seems brighter, sharper, clearer.

In some individuals, the senses are very intimately related so that sounds to them have color, of even taste.

Sir Francis Galton, noted anthropologist who was largely responsible for our system of using fingerprints to detect and identify criminals, was one of these persons. To him, many sounds had definite colors.

"The vowels of the English language always appear to me, when I think of them, as possessing certain color," he said. "Consonants, when thought of by themselves, are of a purplish black; but when I think of a whole word, the colour of the consonants tends towards the color of the vowels. For example, in the word 'Tuesday,' when I think of each letter separately, the consonants are a purplish-black, u is a light dove color, e is a pale emerald green, and a is yellow; but when I think of the whole word together, the first part is a light gray-green, and the latter part yellow. Each word is a distinct whole."

A new school of German psychologists, called the Gestalt school from the German word which means pattern, teaches that an individual does not have single experiences or sensations by themselves. You respond not to red or yellow or tree or cloud, each by itself, but rather to the whole environment as a pattern.

His experiments, Dr. Hartmann believes, add new evidence to the argument of this school. Not only do you see what lies before your eyes as one great pattern, but woven into the design are also the myriad sounds which assail your ears, the perfumes which reach your nose, and the pressures and pains which make the scene smooth and soft or harsh and grating.

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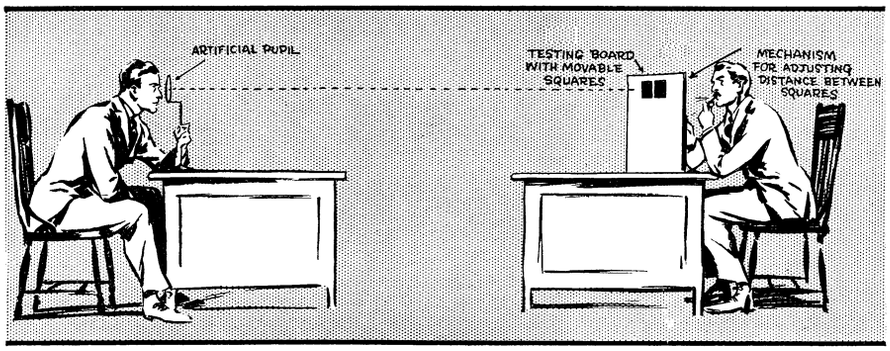

IN THE MIDST OF AN EXPERIMENT

The man at the left, looking through an "artificial pupil," a pinhole in a cardboard, keeps his vision on the two black squares manipulated by the man at the right.

METEOROLOGY

Midwinter Rainbow Seen Due North

UNUSUAL among meteorological phenomena, a rainbow in the northern sky was observed by Prof. Edwin L. Moseley of Bowling Green State College, Ohio.

Rainbows are seen when the sun, usually low in the sky, shines upon a curtain of raindrops opposite it in the heavens, the drops returning the split-up light to the eye of the observer by a double internal reflection. In summer the noonday sun often shines upon rain in the northern sky, but it is too high to form a rainbow. In winter the noon sun is low enough to form a bow, but if there is any water in the air it is frozen and hence unable to reflect the light properly and to break it up into the rainbow colors. It is only when a very mild winter brings rain when the sun is low enough that this unusual sight of a north-sky rainbow can be seen.

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