though enduring no sacrifice themselves, are contributing notably to the aid of science and to the sufferers from brain injuries.

Learning can take place, to a limited extent at least, when the brain cortex is completely missing. Cases of dogs who had lost their brain cortex through injury to the brain and yet could be "conditioned" or taught to modify their behavior, were reported to the same meeting by Dr. Elmer Culler, of the University of Illinois.

When a bell is rung or a light is flashed at the same time that a healthy animal is given an electric shock, he will soon learn to pull back his paw as soon as the bell or light signal is given and thus avoid the shock. The animal who has lost the brain cortex can not learn to avoid the shock, but he does learn to show general symptoms of annoyance at the signal alone. This shows that he does make a connection between the signal and the shock.

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PSYCHOLOGY

## Pleasantness of Words Depends On Meaning

YOUR EAR is pleased by such musical words as coral, serene, and swan, and offended by others such as waddle, and squawk, because of your past associations with these words and not because of their sounds. This finding, at variance with the opinion commonly held by poets and orators, was reported to the American Psychological Association by Dr. Edward L. Thorndike, of Teachers College, Columbia University.

Persons who rate words for the unpleasantness or pleasantness of sound alone, regardless of meaning, are nevertheless influenced by the meaning the words have for them, Dr. Thorndike declared. Nonsense words, made up to test the pleasantness of certain sounds, are likely to be rated according to their resemblance to meaningful words.

The commonly assumed superiority of vowels and liquids, and the inferiority of gutturals and aspirates have probably been overestimated, Dr. Thorndike said. Thus, in the artificial words, "malo" showed no great superiority, from the subject's judgments, over "masho," "macho," and "mago." The sound of a as in father appeared to be little more pleasant than a as in fat.

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## Unreturning Wilderness

**E** VEN the undisturbed bits of wilderness we have left are not really the same as they were before the white man came.

Many places in the East still have their fragments of virgin timber, that have never known ax or fire. Many in the West can similarly boast of patches of virgin prairie, that have never been plowed or grazed over by domestic cattle. Such a relic of the aboriginal wilderness is usually (and quite justifiably) the pride and boast of the community that has preserved it.

Yet they are never quite the same as they were in pre-civilized days, any more than a piece of cloth from your great-grandmother's wedding gown is the original gown itself. They may harbor the same trees, the same wildflowers, that have been part of their makeup since earliest times, but these are only a part of the pattern, just as the

embroidery on your woven heirloom is only a part of its pattern. They have lost the continuity with other areas of their own kind, and are now at best just patches of an old and beautiful fabric set, without matching, into the land's new garment of cultivated fields, pastures and orchards.

And even their pattern is inevitably disturbed. Ask concerning a boasted bit of unplowed prairie: almost every time you will be told, "Oh, yes, we cut it for hay every year." And the custodians of the bit of virgin timber carefully remove dead trees blown down by the wind.

But cutting wild grassland for hay always changes it. At haying time certain of the plants are bound to be in bloom, or in early and immature seed. The offspring that they might have if left undisturbed are lost or diminished, and to that extent the makeup of the vegetation is artificially altered.

Further, in neither forest nor prairie of the present time is anything like the old animal life to be found. Bison and pronghorn antelope are far away, elk and deer likewise. They were as much part of the life-complex of the natural woods and prairies as were the plants themselves. And under present-day conditions not much can be done to bring them back.

All this is not an accusation of futility leveled against the keeping of little wilderness areas. Quite the contrary; we should keep what fragments of the once seamless robe we are able to preserve. But we should not nurse sentimentally mistaken notions about their present nature.

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