agents need to be clarified,'' the investigators conclude, ''and it is particularly important to evaluate the effect of inadvertent use of oral contraceptives after conception.''

How much scientific evidence is necessary to convince physicians of the dangers of prescribing such hormones during pregnancy also remains to be seen. In January 1975, the Food and Drug Administration warned physicians against prescribing progesterones for pregnancy testing and to prevent threatened miscarriage. However, the Health Research Group, a consumer organization in Washington, reported on the basis of drug industry records that in the year following the FDA's warning, doctors wrote 500,000 hormone prescriptions for pregnant women, the same number as before the warning. □

Deuterium quantity and cosmology

The abundance of deuterium in interstellar space is a datum of great importance to cosmologists. Deuterium, which contains one proton and one neutron, is the simplest nucleus after hydrogen. Lots of it must have been made in the early stages of the big bang that theoretically started the universe.

If most of the deuterium now seen can be taken as primordial, then its ratio to ordinary hydrogen is closely related to the density of matter in the universe, which determines whether the universe will expand forever or eventually start to collapse back. The ratio can also be used to estimate the time since the big bang.

All of this depends on assuming, as cosmologists generally like to do, that little or no deuterium has been made in the processes of stellar evolution that have gone on over the billions of years. A survey of deuterium abundance in our galaxy, done by A. A. Penzias, P. G. Wannier, R. W. Wilson and R. A. Linke of Bell Laboratories at Holmdel, N.J., now gives cosmologists nearly carte blanche to go with that assumption.

Using radio measurements of the relative abundances of deuterated and hydrogenated hydrocyanic acid (DCN and HCN made with carbon 13) the Bell Labs observers report in the January 1 ASTROPHYSICAL JOURNAL that the D/H ratio throughout the galaxy is relatively uniform except near the center, where it is markedly lower. If stars were making a lot of deuterium, the abundance should be high near the galactic center because stars are concentrated there. What the result of Penzias and collaborators seems to mean is that most of the deuterium is indeed primordial, but that stars do use some of it as fuel for nuclear burning, since there is less deuterium where stars are more numerous. □

Dyslexia: A hemispheric explanation

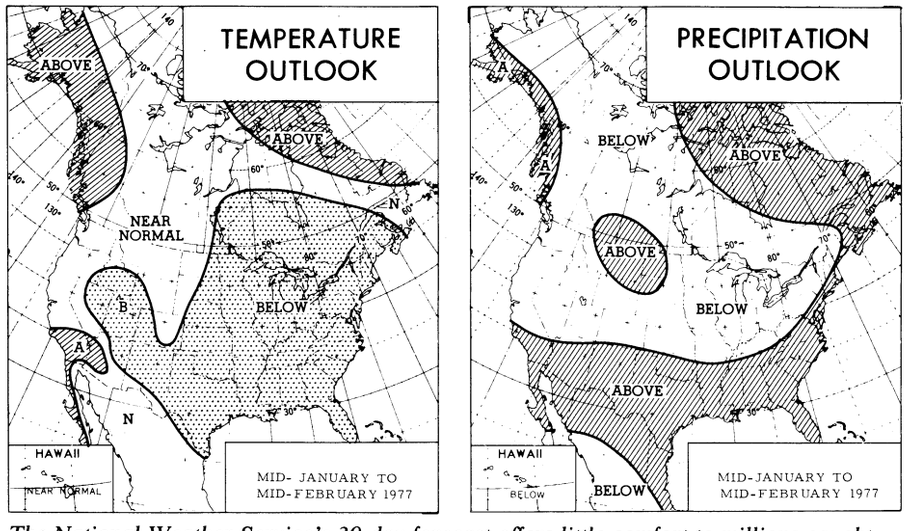
Learning to read English is not especially difficult. Most children master the task within six or seven years of age. But when d's look like b's and when p's look like q's, the job of learning to read becomes a serious challenge. Confusion in the spatial orientation of letters is among the problems faced by children who suffer from a clinical syndrome known as developmental dyslexia. The disorder affects as many as 5 percent of school-aged children in the United States who are otherwise intellectually, emotionally and medically normal. Even though such children may have no other serious problem, the difficulty in learning their letters is particularly incapacitating in modern, highly literate societies and frequently results in serious secondary behavioral and emotional problems.

Dyslexia and its effects have been recognized for years, but plausible explanations of its cause have been hard to come by. Neurological, social and educational factors have been implicated, but none has received strong or consistent support—until now. One long-standing hypothesis, originally suggested in 1937, implicates abnormal cerebral dominance or functional asymmetry of the brain's hemispheres. With the recent explosion of research on left-right hemisphere processes, it has become possible to test this hypothesis. In the Jan. 21 SCIENCE Sandra F. Witelson of McMaster University in Hamilton, Ontario, reports that dyslexia may be associated with representation of spatial data (including alphabet letters) in both hemispheres, instead of primarily in the right as is the usual case.

Witelson's findings are based on studies of 85 right-handed boys, 6 to 14 years of age (the condition is seen most often in males), who were administered a battery of tests commonly used to determine hemispheric specialization. The results were compared with those of 156 control subjects. Evidence for bilateral representation of spatial functions was found among the dyslexic children. Dual representation of a cognitive process such as spatial perception could, says Witelson, ''affect cognition by overloading one hemisphere [the left, in this case] and interfering with those functions 'native' to it.'' The functions native to the left hemisphere include sequential and linguistic processing. Interference with such processes would lead to poor performance in linguistic tasks and reading.

The fact that spatial processing appears to be represented in both hemispheres in dyslexic children suggests, says Witelson, ''that it may be possible to design an approach to reading that elicits an optimum balance between linguistic processing (the phonetic approach and spatial processing (''look-say'' method) which may allow dyslexics to progress in reading.'' □

More cold on the way



The National Weather Service's 30-day forecast offers little comfort to millions caught in some of the century's worst winter weather. Most of the nation will continue unseasonably cold for at least the next month, and unseasonably wet in the southern regions. However, the drought that is threatening crops in much of the midwest shows no signs of slackening. A glance around the nation indicates the mounting toll: The Ohio River froze for the first time in 30 years, New York City broke low temperature records going back to 1869, ice jams blocked traffic on the Mississippi River from St. Louis to Cairo, Ill., lack of fuel forced closing of many plants along the Great Lakes industrial belt. In Washington, troops had to use pneumatic hammers and torches to remove ice for the inaugural parade.