

## Chapter 22

## CRITICAL THINKING

## ● The Sun-Earth-Moon System

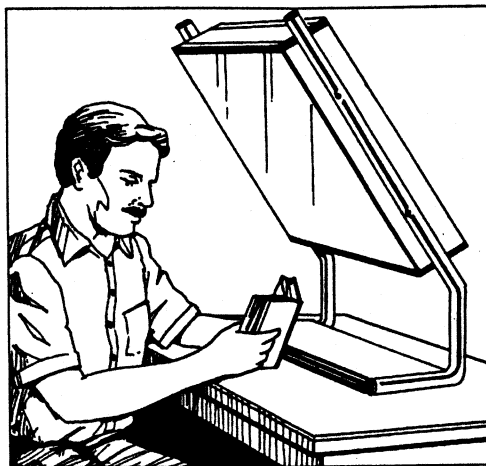
## Sick of Winter

Have you ever had the winter blues? Have you ever wished that winter would end and spring would begin? Did you know some people actually do become ill because of winter? They're victims of a disease known as "seasonal affective disorder," or SAD.

People of all ages, occupations, and ethnic groups can suffer from SAD. Most victims, however, are women between the ages of 20 and 50. Almost four times as many women as men suffer from the disease.

Some people may have a mild form of the disease. They may feel slightly depressed. They may oversleep and overeat. They may lack energy. They do manage to continue their everyday activities. But some people suffer from much stronger cases of SAD. These people can't concentrate during the winter. They become much less productive at work. Some are even totally nonproductive, lacking enough energy to do even the simplest tasks. They withdraw from social contact and feel constantly depressed. They also oversleep and oversleep. As winter ends, SAD sufferers begin to recover. Once again, they participate fully in their daily routines. Yet, year after year, SAD symptoms reappear as winter once more arrives.

Studies are being conducted into the causes of



SAD. Scientists do think, however, there's a link between SAD and the amount of daylight available during the winter. As you know, the days become shorter following the summer solstice,

and the shortest day of the year is on the winter solstice. Throughout the winter months, there are fewer hours of daylight. Some scientists think that it's this shortness of daylight hours that causes SAD.

Scientists reasoned that if lack of light caused SAD, light therapy could help SAD sufferers. Initial studies had a group of SAD sufferers sitting in front of light boxes for several hours a day before dawn and after dusk.

The light boxes use a type of

fluorescent light that's similar to the color range of natural summer sunlight.

The patients began to see positive changes soon after the treatments were first started. Their moods began to improve. They felt less tired and had more energy. They began to carry on their everyday activities. The same patients were exposed to periods of dim light as well. The dim-light therapy proved to be ineffective. Light therapy alone cannot help some people. Yet light therapy has helped many people overcome the symptoms of SAD and to function better during the winter.

## Applying Critical Thinking Skills

1. People who live in the higher latitudes are more likely to suffer from SAD than people who live in the lower latitudes. Why do you think this is?
2. Studies on SAD did not begin until the 1980s. Why do you think it was not studied as a disease before then?
3. SAD patients using light therapy can suffer from such side effects as headache, eyestrain, and sleeplessness. What might be done to reduce these side effects?