

Spring and Autumn Equinox : Why is the daytime longer than the nighttime ? II

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It is said that the length of the daytime and nighttime is equal on the vernal and autumnal equinox but the daytime is actually longer than the nighttime in that case.

There are two hypotheses.

First, there is the definition of sunrise. We define sunrise as the moment when the bottom of the sun touches the horizon and sunset as the moment when the top of the sun touches the horizon.

Second, light is refracted when it goes through the atmosphere so we see light before the sun rises above the horizon. So there is the time lag between the definition and the phenomenon.

We observed the sun so that we would verify whether these two reasons are true or not.

We also analyzed the data but the result was different from the hypothesis.

When we made revisions in the data so that we could check the difference again, we could observe that the sun seems to move slowly near sunrise and sunset.

Keywords: Sun, Vernal Equinox, Autumnal Equinox