participants in an underground WW2 bunker in the absence of environmental and social time cues and found that although some participants displayed rhythms as long as 29 hours, most displayed circadian rhythms between 24-25 hours. Again showing that even if external cues are removed, our sleep-wake cycle is still maintained by our Endogenous Pacemakers.

Notwithstanding, it has been criticized that these studies are flawed. For instance, participants in all the studies were isolated from variables that might affect their circadian rhythms (E.g. daylight, clocks and radios), but they weren't isolated from artificial light because it's thought by the experimenters that dim light wouldn't affect the Circadian rhythm. Yet, Czeisler et al. 1999 proposed that this is not the case. In their study they altered participants' circadian rhythms down to 22 hours and up to 28 hours just by using dim lighting e.g. lights might add to the production of Melatonin. As a result, Czeisler's study showed that the methodologies of the above studies might be flawed given that participants weren't completely isolated from Exogenous Zeitgebers therefore affecting the claim that our circadian rhythm is solely controlled by our Endogenous Pacemakers.

In addition, it is also criticized that the studies above have ignored individual differences. For example, they have all ignored the difference in one's Cycle length. According to Czeisler et al. 1999 they found that Circadian cycles on different people can vary from 13-65 hours. Besides, Duffy et al. 2010 have also found that people have innately different starting times for their cycles E.g. morning people wake early and go to bed early whereas evening people wake late and go to bed late. Furthermore, Siffre's study is subject to Beta bias as it was a study of one man and it fails to account for possible differences in females. Therefore, as individual and gender differences weren't taken into account it reduces the studies' population validity.

Later, in order to test the role of Endogenous Pacemakers, another experiment was carried out to see if Exogenous Zeitgebers could be used to override the Endogenous Pacemakers. Folkard et al. 1985 asked a group of twelve to live in a cave where they were isolated from natural light for 3 weeks. However, they were given a clock and they agreed to go to bed when clock indicated 11:45pm and get up when it indicates 7:45am. Initially the clock ran normally but gradually researchers quickened the clock until it was indicating the passing of 24 hours when actually only 22 had passed. At first participants' circadian cycle matched the clock but as the clock was quickened, their rhythm no longer matched the clock and continued to follow a 24-hour cycle rather than 22, except for one participant who did adapt to the 22-hour cycle. The results suggest that our Circadian rhythm can only be guided to a limited extent by external cue and showed the importance of Endogenous Pacemakers (internal clock) in controlling our circadian rhythm. Nonetheless as the experiment was over, participants took only few days to resynchronize their cycle to available external time cues such as clock and daylight, thus emphasizing the importance of Exogenous Zeitgebers, too.