

The bizarre patterns of rapid flashes and bursts in the X-ray source MXB 1730-335 (Rapid Burster) have been puzzling researchers for two decades. In this article we discuss peculiarities in the time-invariant decay profiles of many type II bursts of the Rapid Burster. We have discovered that they are similar to certain regularities found in theoretical psychology, suggesting the possibility that the activity of the Rapid Burster has analogy to a mode of cognitive ability. As was demonstrated earlier, the peak heights in the time-invariant decay profile form a double geometric proportion; the odd-numbered peaks, numbers 1,3,5, and so forth, on the one hand, and the even-numbered peaks, numbers 2,4,6, and so forth, on the other, form a geometric progression with the same common ratio. This identical regularity is manifested with exactitude in the formal model of consistent self-reflexion. For bursts lasting less than 25 seconds it has already been established that the ratio of the centroids' frequencies of two significant peaks observed in the power spectrum is approximately constant and equal to 1.59. We found that the lower the standard error in an observational set, the more closely the ratio of frequencies approaches the value of $F = (\sqrt{5} + 1) / 2 = 1.618\dots$, called the Golden Section. This constant plays an important role in the same model of consistent self-reflexion. Certain predictions of this model have recently been confirmed by direct psychological experimentation.