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### Mechanism of visual information processing of geometric patterns

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**Abstract** Brain activation is known to occur in the process of visual recognition, but the details of the mechanism are still unknown. In this study, we examined the behavioral and visual scanning patterns of rats to investigate the effectiveness of visual recognition of a triangle as visual stimulus in the Progressive Relaxation Method. The results indicated no difference in the rats' residence time between an inverted and upright triangle when the figures were displayed. For the gazing pattern, the rats gazed more at the right side of the inverted triangle (angled upwards to the right) than at the left side (angled upwards to the left). The opposite result was seen for the upright triangle with the rat gazing more at the left than the right side. The cause for this difference in the gazing frequency is in the angulation of the side, angled upwards to the right or left, rather than the location of the side, situated on the left or right. Furthermore, the gazing time for an inverted triangle was longer than that for an upright triangle, clearly indicating the effect of location of the upper-right angled side on the frequency of gazing. These results suggest the possibility of a high level of ease and preference in rats for visual scanning of an inverted triangle and its right side.

**Key words** Amenity, Dental fear, Intermittent stimulus, Progressive Relaxation Method, Visual environment, Visual stimulus

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