

Table 7. Summary of the correlation between human psychophysical results and the physiological properties of the three subdivisions of the primate geniculocortical visual system.

MAGNO SYSTEM

Physiology	$\left\{ \begin{array}{l} \text{color} \\ \text{selectivity} \\ \text{no} \end{array} \right.$	$\left\{ \begin{array}{l} \text{contrast} \\ \text{sensitivity} \\ \text{high} \end{array} \right.$	$\left\{ \begin{array}{l} \text{temporal} \\ \text{resolution} \\ \text{fast} \end{array} \right.$	$\left\{ \begin{array}{l} \text{spatial} \\ \text{resolution} \\ \text{low} \end{array} \right.$
Human vision				
<i>Movement perception</i>				
movement detection	✓	✓	✓	✓
apparent movement	✓	✓	✓	✓
<i>Depth cues</i>				
stereopsis	✓	✓	✓	✓
interocular rivalry	✓			✓
parallax	✓			
depth from motion	✓	✓		
shading	✓	✓		
contour lines	✓			✓
occlusion	✓			
perspective	✓	✓	✓	✓
<i>Linking properties</i>				
linking by movement	✓	✓		
linking by collinearity (illusory borders)	✓	✓	✓	✓
figure/ground discrimination	✓			

PARVO → INTERBLOB SYSTEM

Physiology	$\left\{ \begin{array}{l} \text{color} \\ \text{selectivity} \\ \text{yes} \end{array} \right.$	$\left\{ \begin{array}{l} \text{contrast} \\ \text{sensitivity} \\ \text{low} \end{array} \right.$	$\left\{ \begin{array}{l} \text{temporal} \\ \text{resolution} \\ \text{slow} \end{array} \right.$	$\left\{ \begin{array}{l} \text{spatial} \\ \text{resolution} \\ \text{high} \end{array} \right.$
Human vision				
<i>Shape discrimination</i>				
orientation discrimination	✓	✓	✓	✓
shape discrimination	✓	✓	✓	✓

PARVO+MAGNO → BLOB SYSTEM

Physiology	$\left\{ \begin{array}{l} \text{color} \\ \text{selectivity} \\ \text{yes} \end{array} \right.$	$\left\{ \begin{array}{l} \text{contrast} \\ \text{sensitivity} \\ \text{high} \end{array} \right.$	$\left\{ \begin{array}{l} \text{temporal} \\ \text{resolution} \\ \text{slow} \end{array} \right.$	$\left\{ \begin{array}{l} \text{spatial} \\ \text{resolution} \\ \text{low} \end{array} \right.$
Human vision				
<i>Color perception</i>				
color determination	✓		✓	✓
flicker photometry	✓		✓	

A check indicates that the psychophysical results are consistent with the physiology, and a blank indicates that the experiment has not been done.